OHIO DEPARTMENT OF TRANSPORTATION
INTER-OFFICE COMMUNICATION
Office of Environmental Services

TO: Todd Audit, District 2 Deputy Director
Attn: Stacy Schimmoeller

DATE: April 27, 2015

FROM: Timothy M. Hill, Administrator, Office of Environmental Services

SUBJECT: Phase I Environmental Site Assessment

PROJECT: HEN – New Maumee River Bridge

PID: 22984

This office has reviewed the Phase I Environmental Site Assessment (ESA) reports for the above referenced project prepared by the Mannik & Smith Group, Inc.

Based on the information provided Based on the information provided, we believe recommend the following:

- Sites 6 & 8 – Both locations have been filled with legally deposited fill material and does not warrant further investigation. There is solid waste located on the two properties that should be removed by the current owner or be removed by the contractor during construction,

- Site 11 – It is recommended that this parcel be taken by easement and **not** purchased outright. The Campbell Soup Company has a history of RCRA violations of its hazardous waste storage and handling at the site.

If you have any questions or concerns, please contact Kevin Hodnett, Environmental Specialist, at (614) 466-7925.

TMH:kwh

cc: File

PHASE I ENVIRONMENTAL SITE ASSESSMENT

HEN-NEW MAUMEE RIVER BRIDGE
PID: 22984
NAPOLEON, HENRY COUNTY, OHIO

NOVEMBER 2014
REVISED: APRIL 2015

PREPARED FOR:
HENRY COUNTY TRANSPORTATION IMPROVEMENT DISTRICT
660 NORTH PERRY STREET, SUITE 101
NAPOLEON, OHIO 43545

PREPARED BY:
THE MANNIK & SMITH GROUP, INC.
1800 INDIAN WOOD CIRCLE
MAUMEE, OHIO 43537

Mannik Smith GROUP
60 years
TECHNICAL SKILL. CREATIVE SPIRIT.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

HEN-NEW MAUMEE RIVER BRIDGE
PID: 22984
NAPOLEON, HENRY COUNTY, OHIO

PREPARED BY: _____

RYNE A. SUNDVOLD
ENVIRONMENTAL SCIENTIST

REVIEWED BY: _____

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PROJECT MANAGER/GEOLOGIST

APPROVED BY: _____

MICHAEL J. MOMENEE, CP
SENIOR PROJECT MANAGER

Mannik Smith GROUP
60 years
TECHNICAL SKILL. CREATIVE SPIRIT.

EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) Report has been prepared in accordance with the April 2009 Environmental Site Assessment Guidelines of the Ohio Department of Transportation's (ODOT's) Office of Environmental Services (OES), to provide site specific information for evaluating the potential to encounter hazardous substances and/or petroleum products within the project study area, as well as developing a list of sites that are recommended for Phase II ESAs.

The proposed project will construct a new bridge spanning the Maumee River at Napoleon in Harrison Township, Henry County, Ohio. The preferred alternative (Alt 2) under consideration will connect Industrial Drive and State Route 424 on the north side of the river with State Route 110 on the south side of the river.

This Phase I ESA encompasses three sites (hereinafter referred to individually as Site No. 6, Site No. 8 and Site No. 11 and referred to collectively as the Sites) recommended for Phase I ESAs located in the immediate vicinity of the proposed new bridge in a mixed commercial, industrial, and agricultural area within Napoleon and Harrison Township in Henry County, Ohio.

MSG reviewed historical ownership records, historical topographic maps, and historical aerial photographs as well as conducted interviews with site representatives where available. Results of these reviews indicate no historical use of petroleum and/or hazardous substances at the Sites.

Base on the results of this investigation, MSG recommends the following for each site:

Site No. 6, Todd A. Rettig, Custodian, Route 424, Parcel No. 28-0700640000
This Site was undeveloped and vacant at the time of the Site investigation; however, a significant amount of fill material consisting primarily of apparent construction demolition debris of undetermined origins and characteristics was observed. A Notice of Intent to Fill (NOIF) was filed with the Henry County Health Department (HCHD) by the Fort Defiance Construction Company on May 20, 2005 for the property addressed at 875 Riverview Drive. This 875 Riverview Drive address is apparently owned by Todd Rettig and though the referenced address is different than the parcel address listed with the Henry County Auditor for Site No. 6, an aerial photograph included with the NOIF suggests that this address includes Site No. 6. The 2005 NOIF does not identify the site of origin for the construction demolition debris, but does identify the 875 Riverview Drive property as the "Todd Rettig Waste Site." Ohio Administrative Code (OAC) Rule 3745-400-05(4) allows for the use of clean hard fill for "legitimate filling operations for construction purposes or to bring the site up to a consistent grade." Visually, the reinforced and unreinforced concrete on Site No. 6 does not appear to have been placed in conjunction with a legitimate filling operation to bring the Site up to a consistent grade and therefore could be construed as the improper disposal of construction demolition debris. Furthermore, no information was provided by either the Ohio EPA or the HCHD that this property has been licensed as a "waste site" for construction demolition debris disposal. In addition, MSG observed one empty above ground storage tank (AST) on the Site.

Project plans presently identify the acquisition of permanent right-of-way in conjunction with this Site. Given the undetermined point of origin, the potential for contaminants to be present within the fill material and the presence of the AST, MSG recommends this Site for a Phase II ESA.

Site No. 8, Todd A. Rettig, Route 424 (rear), Parcel No. 28-0700600000
This Site was undeveloped and vacant at the time of the Site investigation; however, a significant amount of fill material consisting primarily of apparent construction demolition debris of undetermined origins and characteristics was observed. A NOIF was filed with the HCHD on May 20, 2005 for the property addressed at 875 Riverview Drive by Fort Defiance Construction Company. This 875 Riverview Drive address is apparently owned by Todd Rettig and though the referenced address is different than the parcel address listed with the Henry County Auditor, an aerial photograph included with the NOIF suggests that this address includes Site No. 8. The 2005 NOIF does not identify

the site of origin for the construction demolition debris, but does identify the 875 Riverview Drive property as the "Todd Rettig Waste Site." OAC Rule 3745-400-05(4) allows for the use of clean hard fill for "legitimate filling operations for construction purposes or to bring the site up to a consistent grade." Visually, the reinforced and unreinforced concrete on Site No. 8 does not appear to have been placed in conjunction with a legitimate filling operation to bring the Site up to a consistent grade and therefore could be construed as the improper disposal of construction demolition debris. Furthermore, no information was provided by either the Ohio EPA or the HCHD that this property has been licensed as a "waste site" for construction demolition debris disposal. In addition, MSG observed three empty ASTs on the Site, one of which had an attached hose and dispenser nozzle.

Project plans presently identify the acquisition of permanent right-of-way in conjunction with this Site. Based on the potential for contaminants to be present within the fill material and presence of the ASTs, MSG recommends this Site for a Phase II ESA.

Site No. 11, Campbell's Soup Supply Company, State Route 110 and County Road 12, Parcel No. 22-0700040100 et al.

Site No. 11 is a 921.63-acre property consisting of 18 parcels owned by the Campbell's Soup Supply Company. The southwest portion of the Site is comprised of the Campbell's Soup manufacturing plant while the remaining portions of the Site are undeveloped agricultural fields. Project plans presently identify the acquisition of permanent right-of-way in conjunction with Parcel No. 22-0700040100 of this Site, which is an undeveloped agricultural field located northeast of the Campbell's Soup plant. A review of historical aerial photographs indicates that Parcel No. 22-0700040100 has been used for agricultural purposes since at least 1950. Three former 10,000-gallon underground storage tanks (USTs) were removed from the plant complex on the Site circa 1994 and their closure was granted No Further Action (NFA) status by the Bureau of Underground Storage Tank Regulations (BUSTR). A review of available environmental records also indicates that the Campbell's plant was formerly subject to Resource Conservation and Recovery Act (RCRA) corrective actions. Records indicate that both the former USTs and RCRA corrective actions obligations were located in the southwest portion of the Main Plant site, approximately 3,000-feet away from the proposed new bridge project area (Parcel No. 22-0700040100), and both have been addressed to the satisfaction of applicable regulatory programs and agencies.

No further action is recommended in connection with Site No. 11 at this time.

MSG has not received or reviewed any other information or documentation pertaining to releases or potential releases of hazardous or petroleum substances to environmental media that would negatively impact the proposed new bridge project area. Therefore, because of the NFA status of the three former USTs, the clean closure of the RCRA Corrective Action items, and lack of any other documentation of environmental releases, no further action is recommended in conjunction with this Site at this time.

Please note that this Executive Summary is provided as a general overview to conveniently identify recognized environmental conditions associated with the Site. It is not intended as a stand-alone document and does not contain all of the information that is presented within the body of the report. The attached Phase I ESA report should be read in its entirety to obtain a complete understanding of the information provided and to assist you with your plans for the Sites.

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1.0 INTRODUCTION

The Henry County Transportation Improvement District (HCTID) authorized a study to evaluate potential environmental concerns associated with the proposed construction of a new crossing of the Maumee River between State Route 424 on the north side of the Maumee River and State Route 110 on the South Side of the Maumee River in Napoleon, Henry County, Ohio. The Mannik & Smith Group, Inc. (MSG) prepared this Phase I Environmental Site Assessment (ESA) report in accordance with the April 2009 *Phase I Environmental Site Assessment Guidelines* of the Ohio Department of Transportation's (ODOT's), Office of Environmental Services (OES) to provide site specific information and determine the potential for encountering hazardous substances and/or petroleum products within the proposed project limits, as well as to make recommendations for further investigations.

The proposed transportation improvement project will construct a new bridge spanning the Maumee River at Napoleon in Harrison Township, Henry County. For many years local officials have recognized the need to better connect the northern and southern halves of the City of Napoleon, which is physically separated by the Maumee River. A single river crossing at State Route 108 currently provides the only direct transportation link between the two halves of the community.

The proposed project includes construction of a new bridge, piers, abutments and associated approaches to the bridge on both sides of the Maumee River. The preferred alternative (Alt 2) under consideration will connect Industrial Drive and State Route 424 on the north side of the river with State Route 110 on the south side of the river (Study Area).

An ESA Screening Report was prepared by MSG for this proposed transportation improvement project in March 2014. In an Inter-office Communication (IOC) dated November 4, 2014 ODOT's OES agreed with MSG's recommendations and requested that Phase I ESAs be completed for the following Sites:

Site No.	Site Address	Site Parcel No.	Concern
6	Route 424 (rear)	28-0700640000	Significant amount of fill materials of undetermined origins and characteristics was observed.
8	State Route 424	28-0700600000	Significant amount of fill materials of undetermined origins and characteristics was observed.
11	State Route 110 and County Road 12	22-0700040100 et al.*	Reportedly, the Site has undertaken Resource Conservation and Recovery Act (RCRA) corrective actions associated with closure/post-closure violations, but the nature and characteristics of the corrective actions are undetermined.

*Note: Site No. 11 is owned by the Campbell's Soup Supply Company and is comprised of 18 Henry County permanent parcels encompassing approximately 922 acres that includes a food manufacturing facility and adjacent fields in agricultural production to the east and northeast. One of the agricultural parcels (Parcel No. 22-0700040100) lies within the Study Area, but the plant and remainder of the agricultural fields lie outside of the Study Area. However, in accordance with ODOT's December 20, 2013 Environmental Update Meeting and an IOC dated January 12, 2015, "a Site is defined as the total assemblage of adjoining and/or contiguous property owned by a single entity." Therefore, while the primary focus of this Phase I ESA is on the portion of Site 11 that lies within the Study area (Parcel 22-0700040100), MSG completed a regulatory file review for the entire Site.

Figure 1, showing the locations of the Sites within the Study Area is provided in Appendix A.

2.0 GEOGRAPHICAL/GEOLOGICAL SETTING OF THE PROJECT STUDY AREA

2.1 Site Location

The proposed project includes the construction of a new bridge crossing the Maumee River at the intersection of Industrial Drive and East Riverview Avenue (State Route 424) north of the river and the intersection of State Route 110 and County Road 12 south of the river. Site Nos. 6 and 8 are located on the south side of State Route 424 between the former Miami-Erie Canal and the Maumee River and can be accessed from East Riverview Avenue (State Route 424). Site No. 11 consists of the Campbell's Soup Supply Company plant located near the intersection of State Route 110 and County Road 12 and can be accessed from both State Route 110 and County Road 12. The project location consists of a mix of primarily rural residential and industrial land uses within the City of Napoleon and Harrison Township in Henry County, Ohio.

2.2 Soils Information

MSG obtained soils information for the project area from the Soil Survey of Henry County, Ohio (United States Department of Agriculture, 1972). Soils on the portion of the Study Area located south of the Maumee River have been identified as belonging to the Millgrove-Mermill-Haskins Association, described as nearly level, very poorly drained and somewhat poorly drained loamy soils formed mainly in water worked material. Soils on the portion of the Study Area located north of the Maumee River have been identified as belonging to the Toledo-Fulton-Lenawee Association, described as nearly level to gently sloping, very poorly drained and somewhat poorly drained soils formed in lacustrine sediment. Specific soil types identified include:

DfA (Del Rey silt loam) – The Del Rey silt loam unit consists of somewhat poorly drained, nearly level (0 to 2 percent slope) soils formed on lake plains from lacustrine deposits.

DuA (Digby fine sandy loam) – The Digby fine sandy loam unit consists of somewhat poorly drained, nearly level (0 to 2 percent slope) soil formed on plains from glaciofluvial deposits over outwash material.

Hla (Haskins loam) – The Haskins loam unit consists of somewhat poorly drained, nearly level (0 to 2 percent slope) soil formed on knolls from glaciolacustrine deposits over basal till.

HoA (Hoytville clay loam) – The Hoytville clay loam unit consists of very poorly drained, nearly level (0 to 1 percent slope) soil formed on drainageways, depressions, or flats from wave-planed Wisconsinan till deposits.

LxC3 (Lucas silty clay) – The Lucas silty clay unit consists of moderately well drained, moderately sloping (6 to 12 percent slope) soil formed on drainageways on lake plains from glaciolacustrine deposits.

Me and Mf (Mermill loam & clay loam) – The Mermill loam and clay loam units consist of very poorly drained, nearly level (0 to 2 percent slope) soil formed on flats on lake plains from glaciolacustrine deposits over basal till.

Mh (Millgrove loam) – The Millgrove loam unit consists of very poorly drained, nearly level (0 to 2 percent slope) soil formed on flats on lake plains from outwash material.

RmA and RfA (Rimer loamy fine sand) – The Rimer loamy fine sand units consist of somewhat poorly drained, nearly level (0 to 2 percent slope) soil formed on lake plains from glaciolacustrine deposits over basal till.

SbC2 (St. Clair silty clay loam) – The St. Clair silty clay loam unit consists of moderately well drained, moderately sloping (6 to 12 percent slope) soil formed on lake plains from wave-planed basal till deposits.

Sh (Shoals silt loam) – The Shoals silt loam unit consists of somewhat poorly drained, nearly level (0 to 2 percent slope) soils formed on flood plains from alluvium material.

TuB2 (Tuscola loam) – The Tuscola loam unit consists of moderately well drained, gently sloping (2 to 6 percent slope) soil formed on lake plains from glaciolacustrine deposits.

Ur (Urban land) – Urban land is a general description for soil types that have been altered due to disturbance, development or other earth moving activities such that the specific soil type and soil horizons are no longer discernible at a specific project area.

2.3 U.S. Geological Survey Topographic Quadrangle Maps

The United States Geological Survey (USGS) 7.5-Minute topographic map for the Napoleon quadrangle (dated 1960, photo revised in 1977) indicates that the Study Area is located in a generally flat portion of Henry County. The general elevation of the Study Area ranges from approximately 640 to 680 feet above mean sea level (msl). The Maumee River is located within the Study Area. The topography of the area implies that shallow groundwater movement is toward the Maumee River. Based on the original map preparation of 1960, the Study Area appears to have been used for a combination of residential and agricultural purposes. Surrounding land use on this map indicates residential, agricultural and manufacturing land uses.

A copy of the appropriate portion of the USGS map is presented as the Study Area Location Map (Figure 1), which is located in Appendix A.

The general locations of all three Sites are able to be identified in the 1908 topographic map, though no specific features are identified. Site Nos. 6 and 8 are located just south of the Miami & Erie Canal, which is just south of the Wabash Railroad. Generally, the 1960 topographic map shows the Study Area in the vicinity of the Sites to be relatively unchanged. A small structure (apparent residence) is depicted on Site No. 8 and the Campbell's Soup Supply Company plant is shown on site No. 11. The 1971 and 1977 topographic maps appear to be generally the same as the map dated 1960 with the exception that additional apparent residential development has occurred north of Site No. 6 and 8. In addition, expansion of the Campbell's Soup plant (Site No. 11) has occurred to the northeast. No manmade structures are depicted on the 2010 and 2013 topographic maps. Otherwise, these maps appear generally the same as the 1977 topographic map. Copies of the historical topographic maps are provided in Appendix B.

2.4 Preliminary Project Mapping and/or Plans

Copies of the most recent preliminary project plans are provided in Appendix C for reference.

2.5 Bedrock Geology and Groundwater Occurrence

The proposed transportation improvement project is located within the Maumee Lake Plains deposits of the Huron-Erie Lake Plains Section of the Central Lowlands Physiographic Province of North America. The

Maumee Lake Plains are characterized as very flat-lying clayey soils resultant from deposition in shallow post-glacial lakes. Topographic relief is generally on the order of five feet or less, except in the vicinity of streams, creeks, and rivers. The project is located in an area where Devonian-age carbonate limestone and shales are overlain by Pleistocene-age silt, clay, and wave-planed clayey till. The uppermost aquifer beneath the project location is generally considered to be contained within the Devonian limestone bedrock at a depth of 48 to 60 feet, though sand and gravel lenses contained within the overlaying glacial till may yield useable quantities of water for finite periods.

The entire area is supplied with potable water by the City of Napoleon, who draws their water from the Maumee River. MSG completed a water well search for the project area on the Ohio Department of Natural Resources (ODNR) website. According to ODNR, one potable water well was identified, at a depth of 69 feet, within a one-half mile radius of the project area.

3.0 SITE OWNERSHIP AND OCCUPANCY INFOMATION

3.1 Title Records

The following tables provide summaries of historical ownership based upon a review of title records readily available at the Henry County Auditor's website, for each Site identified for a Phase I ESA. Copies of parcel information for each Site are provided in Appendix D.

Table 3.1 Summary of Historical Ownership – Site No. 6
Henry County Parcel No. 28-0700640000

Grantor	Grantee	Date	Concern?
Lawrence E. Hoeffel	Todd A. Rettig, Custodian	12/29/2000	No

Table 3.2 Summary of Historical Ownership – Site No. 8
Henry County Parcel No. 28-0700600000

Grantor	Grantee	Date	Concern?
Unknown	Lawrence E. Hoeffel	3/28/1996	No
Lawrence E. Hoeffel	Todd A. Rettig	12/29/2000	No

Table 3.3 Summary of Historical Ownership – Site No. 11
Henry County Parcel No. 22-0700040100

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	2/08/2007	No

Henry County Parcel No. 22-0700040000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	2/08/2007	No

Henry County Parcel No. 22-1800040100

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	2/08/2007	No

Henry County Parcel No. 22-1800040000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	2/08/2007	No

Henry County Parcel No. 22-1800020000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	2/08/2007	No

Henry County Parcel No. 22-1800040200

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	2/08/2007	No

Henry County Parcel No. 22-1800080000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	2/08/2007	No

Henry County Parcel No. 24-1800100000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	2/08/2007	No

Henry County Parcel No. 22-0800020000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	7/30/1999	No

Henry County Parcel No. 22-0800040000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	7/30/1999	No

Henry County Parcel No. 22-0800060000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	7/30/1999	No

Henry County Parcel No. 22-0900020000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	7/30/1999	No

Henry County Parcel No. 22-1700080000

Grantor	Grantee	Date	Concern?
Nancy Haldy, Trustee	Campbell Soup Supply Co.	12/06/2010	No

Henry County Parcel No. 22-1700100000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	12/06/2010	No

Henry County Parcel No. 22-1700160000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	7/30/1999	No

Henry County Parcel No. 22-1800090000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	7/30/1999	No

Henry County Parcel No. 22-1800100000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	2000	No

Henry County Parcel No. 22-1800320000

Grantor	Grantee	Date	Concern?
Unknown	Campbell Soup Supply Co.	7/30/1999	No

3.2 City Directories

MSG contacted Historical Information Gatherers (HIG) to obtain historical city directories that cover the Sites. HIG responded that no coverage of the Site is available. A copy of the No Coverage letter is included in Appendix D.

4.0 HISTORICAL MAP AND AERIAL PHOTOGRAPH REVIEW

4.1 Aerial Photographs

MSG contacted HIG to obtain historical aerial photographs that cover the Study Area and adjoining sites at a scale no larger than one inch = 800 feet. MSG reviewed and summarized (below) copies of aerial photographs provided by HIG. Copies of the pertinent aerial photographs are provided in Appendix B.

4.1.1 Summary of Aerial Photograph Review

The following tables provide a summary of our review of historical aerial photographs for the Sites:

Table 4.1 Site Nos. 6 and 8: Parcel Nos. 28-0700640000 and 28-0700600000

Year	Site Features	Adjoining Property Features	Concern?
1950	Site Nos. 6 and 8 have no structures on the property and appear to be riparian woodland along the Maumee River.	A road (State Route 424) is observed along the northwest boundary of the Sites. A railroad is observed approximately 300 feet north of State Route 424. The surrounding area is undeveloped with a predominately agricultural and rural residential land use.	No
1956	No significant changes are observed from the 1950 aerial photograph.	A structure appears to the north of Site No. 6 across State Route 424. No other significant changes are observed from the 1950 aerial photograph.	No
1963	No significant changes are observed from the 1956 aerial photograph.	No significant changes are observed from the 1956 aerial photograph.	No
1971	No significant changes are observed from the 1963 aerial photograph.	Additional residential-size structures appear north of Site No. 6 across State Route 424. Other surrounding properties appear generally unchanged from the 1963 aerial photograph.	No
1980	No significant changes are observed from the 1971 aerial photograph.	A significant amount of apparent industrial / commercial development has occurred along the railroad to the north and northeast of Site No. 6.	No
1989	No significant changes are observed from the 1980 aerial photograph.	No significant changes are observed from the 1980 aerial photograph.	No
1994	No significant changes are observed from the 1989 aerial photograph.	No significant changes are observed from the 1989 aerial photograph.	No
2000	No significant changes are observed from the 1994 aerial photograph.	Additional apparent industrial / commercial development has occurred to the north and northeast of the Sites. Other surrounding properties appear generally unchanged from the 1994 aerial photograph.	No

Year	Site Features	Adjoining Property Features	Concern?
2004	No significant changes are observed from the 2000 photograph.	A small structure appears immediately northwest of Site No. 6 along the Maumee River. Other surrounding properties appear generally unchanged from the 2000 aerial photograph.	No
2009	No significant changes are observed from the 2004 photograph.	No significant changes are observed from the 2004 aerial photograph.	No

Table 4.2 Site No. 11

Year	Site Features	Adjoining Property Features	Concern?
1950	Site No. 11 has an apparent residential-sized structure on the northwest portion of the Site. There is a small patch of woodlands in the southeast portion of the Site. The remainder of the Site appears to be undeveloped agricultural land.	The surrounding area is primarily residential or undeveloped agricultural fields.	No
1956	The Campbell's Soup plant appears on the western portion of the Site. The remainder of the Site appears unchanged from the 1950 aerial photograph.	No other significant changes are observed from the 1950 aerial photograph.	No
1963	Expansion of the Campbell's Soup plant to the northwest has occurred.	No significant changes are observed from the 1956 aerial photograph.	No
1971	Additional expansion of the Campbell's Soup plant to the northeast toward the intersection of State Route 110 and County Road 12 has occurred.	Surrounding properties appear generally unchanged from the 1963 aerial photograph.	No
1980	Three apparent settling ponds or water retention pools appear on the south side of the Site along County Road 12 and Township Road 3.	No significant changes are observed from the 1971 aerial photograph.	No
1989	Additional expansion of the Campbell's Soup plant has occurred on the Site.	Surrounding properties appear generally unchanged from the 1980 aerial photograph.	No
1994	Additional expansion of the Campbell's Soup plant has occurred to the north along State Route 110. An above ground storage tank (AST) is observed immediately adjacent to the northeast of this expansion.	Surrounding properties appear generally unchanged from the 1989 aerial photograph.	No, AST used to store water for the plant's fire suppressant system.
2000	No significant changes are observed from the 1994 photograph.	No significant changes are observed from the 1994 aerial photograph.	
2004	No significant changes are observed from the 2000 photograph.	No significant changes are observed from the 2000 aerial photograph.	
2009	Expansion of the Campbell's Soup plant has occurred toward the intersection of State Route110 and County Road 12.	No significant changes are observed from the 2004 photograph.	

5.0 ENVIRONMENTAL RECORDS REVIEW

5.1 Database Results Summary

MSG reviewed the regulatory database provided by HIG; a total of 54 database entries, associated with 11 properties were identified to be within the recommended search distances relative to the Study Area. Additionally, five entries were listed as unable to be located. However; all of the un-locatable entries appear to be outside of the search radius relative to the Study Area; therefore, they have been removed from further consideration as they are unlikely to affect the Study Area. Additional information about the identified Sites follows. The database report provided by HIG is located in Appendix E.

5.2 Site-Specific Results

Site Nos. 6 and 8 were not identified within the regulatory database.

Site No. 11, located southwest of the intersection of State Route 110 and County Road 12 is owned by the Campbell's Soup Supply Company. The Campbell's Soup Supply Company is listed under 27 database entries which are summarized in Table 5.1 below.

Table 5.1 Summary of Environmental Database Findings

Map ID/Database	Facility Name	Facility Address	Comments	Possible Concern?
7/LUST, UST	Campbell Soup Co.	East Maumee Ave.	Closure of regulated USTs and LUST with no further action (NFA) status.	No, based on the NFA status.
7/ERNSOH	Campbell Soup Co.	12-773 State Route 110 Beverage Plant	Equipment failure released refrigerant gas. Location was not reported. Remedial action taken.	No, based on the remedial action taken and lack of violations or corrective actions.
7/RCRAC	Campbell Soup Supply Co.	12-773 State Route 110	Small quantity generator of hazardous waste with multiple violations subject to corrective action. However, the violations appear to be the result of improper documentation and/or storage of materials, with no release of hazardous materials to environmental media noted.	No, based on the lack of a release of hazardous substances to environmental media.
7/RCRAGR05	Silgan Can Co.	12-773 State Route 110 Suite 1	Large quantity generator of hazardous waste with multiple administrative violations, but not subject to correction action.	No, based on the lack of a release of hazardous substances to environmental media.
7/RCRAGR05	Campbell Soup Supply Co.	12-773 State Route 110	Small quantity generator of hazardous waste with multiple violations subject to corrective action. However, the violations appear to be administrative violations, with no release of hazardous materials to environmental media noted.	No, based on the lack of a release of hazardous substances to environmental media.

5.3 Surrounding Properties Summary

Of the remaining 27 database entries, associated with 10 properties that were identified to be within the recommended search distances relative to the Study Area, none appear likely to impact the Sites based on the inferred direction of groundwater movement toward the Maumee River, as well as the lack of enforcement, violations, or corrective actions and/or the listed NFA status of the Sites.

5.4 Freedom of Information Act (FOIA) Requests

MSG submitted a FOIA request to the Henry County Health Department (HCHD), Bureau of Underground Storage Tank Regulations (BUSTR) and the Ohio Environmental Protection Agency (Ohio EPA).

Copies of our correspondence with the various agencies are included in Appendix F.

5.4.1 Henry County Health Department File Review

Because of the fill materials on Sites 6 and 8, MSG submitted a FOIA request to the HCHD for any records of Notices of Intent to Fill (NOIFs) for these two Sites. There are no street address numbers associated with Sites 6 and 8 in the Henry County Auditor's records. Therefore, MGS's FOIA request to the HCHD included the parcel number for Sites 6 and 8 along with approximate street address numbers (1005 and 899 East Riverview Avenue, respectively) based on surrounding actual property addresses. A response was received on January 15, 2015 from the Director of Environmental Health, Jon Lindsay, indicating they did not have any NOIFs for either of the property addresses listed in the FOIA request. However, the HCDC did provide information related to a NOIF submitted by Fort Defiance Construction Company on May 20, 2005 for a property addressed at 875 Riverview Drive. The NOIF identifies the filling location as the "Todd Rettig Waste Site" and includes a copy of an aerial photograph that encompasses Site Nos. 6 and 8. The NOIF does not identify the point of origin of the intended fill materials, which are described as consisting of "concrete, brick, asphalt concrete, and dirt." A letter from the HCHD acknowledges receipt of the NOIF and suggests that the intended filling may be within a floodplain and that other regulatory agencies may have some authority over the filling operation. No other information was provided.

Copies of our correspondence with the HCHD are included in Appendix F.

5.4.2 Ohio EPA File Review

MSG submitted FOIA requests to the Ohio EPA for any records pertaining to Site Nos. 6, 8 and 11 on November 12, 2014 and January 13, 2015. Responses were received on December 4, 2014 and January 21, 2015 indicating the Ohio EPA did not have any records pertaining to Site Nos. 6 and 8. However, the Ohio EPA provided several records pertaining to the Campbell's Soup plant on Site 11. MSG's review of the files received from the Ohio EPA revealed that the Campbell's Main Plant on Site 11 was subject to RCRA Corrective Action for the following:

- The Main Plant operated as an unpermitted hazardous waste treatment, storage, and disposal (TSD) facility from 1981 through 1983, when semi-solid hazardous wastes (waste coating material used on steel cans as a rust inhibitor) were dumped into a Former Holding Pit Area, allowed to dry and eventually were mixed with sand prior to disposal at a landfill; and
- From approximately 1981 to 1993, the liquid phase of the waste coating material (ignitable solvents) was poured onto a coal pile located on the grounds of the Main Plant and later burned in a boiler for energy recovery.

Both the former Holding Pit Area and former coal storage pile were located in the southwest portion of the Main Plant site, approximately 3,000-feet away from the proposed transportation improvement project area. Closure of the Former Holding Pit Area was conducted in accordance with an approved closure plan and was certified closed on June 11, 2004. In addition, soil sampling beneath the former coal storage pile determined that the soil had not been impacted by the solvent wastes and the violation was terminated by the Ohio EPA in a letter dated December 12, 1994.

No other release or potential release of hazardous substances or petroleum was documented in the files provided by the Ohio EPA.

Copies of our correspondence with the Ohio EPA are included in Appendix F.

5.4.3 BUSTR File Review

MSG submitted FOIA requests to BUSTR on October 31, 2014 and January 15, 2015 for any records pertaining to Site Nos. 6, 8 and 11. On January 30, 2015, BUSTR provided a Closure Report for three, 10,000-gallon USTs that were removed from the Campbell's Soup plant (Site. 11) in 1995. The closure of these USTs was granted NFA status in a letter from BUSTR dated November 13, 1995. No other records pertaining to Site No. 11 and no records pertaining to Site Nos. 6 or 8 were received from BUSTR.

Copies of our correspondence with BUSTR are included in Appendix F.

6.0 SITE INTERVIEWS & RECONNAISANCE

MSG personnel completed a reconnaissance of the Sites recommended for Phase I ESAs on October 28, 2014, and personnel were also on the Sites in November and December 2014. Photographs taken during Site reconnaissance are provided in Appendix G. During the reconnaissance MSG attempted to interview one or more representatives for each Site. Site interview details are also included in the following sections.

6.1 Site No. 6: Rettig, Todd A., Custodian, Route 424 (rear), Parcel No. 28-0700640000

Site No. 6 is a 1.31-acre parcel of undeveloped, vacant land located between the former Miami-Erie Canal and the Maumee River. MSG was not able to interview the owner of the Site. A significant amount of fill materials of undetermined origins and characteristics was observed during the Site reconnaissance. In addition, MSG observed an apparently empty, unlabeled, 275-gallon capacity AST on the site. However, no evidence of staining was observed on the ground surrounding the AST. No evidence of USTs, drums, ponds/lagoons, surface staining, sheen, damaged vegetation or odors was observed at the time of reconnaissance.

Project plans presently identify the acquisition of permanent right-of-way in conjunction with this Site. The adjacent property to the southwest is Site No. 8, which is vacant. South and southeast of the Site is the Maumee River; northeast of the Site is a residence; and northwest of the Site is the former Miami-Erie Canal, beyond which is State Route 424.

6.2 Site No. 8: Rettig, Todd A., Route 424 (rear), Parcel No. 28-0700600000

Site No. 8 is a 1.55-acre parcel of undeveloped, vacant land located between the former Miami-Erie Canal and the Maumee River. MSG was not able to interview the owner of the Site. A significant amount of fill materials of undetermined origins and characteristics was observed during the Site reconnaissance including an unlabeled shipping container, miscellaneous piles of metal piping and construction materials. In addition, MSG observed three apparently empty, unlabeled, 275-gallon capacity ASTs on the site. A hose and dispensing nozzle was connected to one of the ASTs. However, no evidence of staining was observed on the ground surrounding the ASTs. No evidence of USTs, drums, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance.

Project plans presently identify the acquisition of permanent right-of-way in conjunction with this Site. The adjacent property to the northeast is Site No. 6, which is vacant. South and southeast of the Site is the Maumee River; southwest of the Site is vacant, undeveloped land; and northwest of the Site is the former Miami-Erie Canal, beyond which is State Route 424.

6.3 Site No. 11: Campbell's Soup Supply Company, State Route 110 & County Road 12, Parcel No. 22-0700040100 et al.

Site No. 11 is a 921.63-acre property consisting of 18 parcels that make up the Campbell's Soup Supply Company Industrial Complex. The southwest portion of the Site is comprised of the Campbell's Soup plant while the remaining portions of the Site consist primarily of undeveloped agricultural fields. The 26.82-acre undeveloped, agricultural parcel (No. 22-0700040100**)** immediately adjacent to the proposed transportation improvement project is located near the intersection of State Route 110 and County Road 12, and was the focus of MSG's reconnaissance of this Site. No evidence of USTs, drums, landfills, ponds/lagoons, surface staining, sheen, damaged vegetation or odors was observed on Parcel 22-0700040100 at the time of reconnaissance. However, MSG did observe a large AST next to the Campbell's Soup plant along State Route 110 immediately adjacent to the western edge of Parcel 22-0700040100. MSG interviewed Mr. Randy Puckett, Manager, Services and Utilities for the Campbell's Soup plant (Site contact) to obtain Site

information. Mr. Puckett indicated that the AST located on the north side of the plant contain water for the plant's fire suppression system.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

Site No. 6, Todd A. Rettig, Custodian, Route 424, Parcel No. 28-0700640000
This Site was undeveloped and vacant at the time of the Site investigation; however, a significant amount of fill material consisting primarily of apparent construction demolition debris of undetermined origins and characteristics was observed. A NOIF was filed with the HCHD by the Fort Defiance Construction Company on May 20, 2005 for the property addressed at 875 Riverview Drive. This 875 Riverview Drive address is apparently owned by Todd Rettig and though the referenced address is different than the parcel address listed with the Henry County Auditor for Site No. 6, an aerial photograph included with the NOIF suggests that this address encompasses Site No. 6. The 2005 NOIF does not identify the site of origin for the construction demolition debris but does identify the 875 Riverview Drive property as the "Todd Rettig Waste Site." Ohio Administrative Code (OAC) Rule 3745-400-05(4) allows for the use of clean hard fill for "legitimate filling operations for construction purposes or to bring the site up to a consistent grade." Visually, the reinforced and unreinforced concrete on Site No. 6 does not appear to have been placed in conjunction with a legitimate filling operation to bring the site up to a consistent grade and therefore could be construed as the improper disposal of construction demolition debris. Furthermore, no information was provided by either the Ohio EPA or the HCHD that this property has been licensed as a "waste site" for construction demolition debris disposal. In addition, MSG observed one empty AST on the Site.

Project plans presently identify the acquisition of permanent right-of-way in conjunction with this Site. Given the undetermined point of origin, the potential for contaminants to be present within the fill material and the presence of the AST, MSG recommends this Site for a Phase II ESA.

Site No. 8, Todd A. Rettig, Route 424 (rear), Parcel No. 28-0700600000
This Site was undeveloped and vacant at the time of the Site investigation; however, a significant amount of fill materials consisting primarily of apparent construction demolition debris of undetermined origins and characteristics was observed. A NOIF was filed with the HCHD by Fort Defiance Construction Company on May 20, 2005 for the property addressed at 875 Riverview Drive. This 875 Riverview Drive address is apparently owned by Todd Rettig and though the referenced address is different than the parcel address listed with the Henry County Auditor, an aerial photograph included with the NOIF suggests that this address includes Site No. 8. The 2005 NOIF does not identify the site of origin for the construction demolition debris but does identify the 875 Riverview Drive property as the "Todd Rettig Waste Site." Ohio OAC Rule 3745-400-05(4) allows for the use of clean hard fill for "legitimate filling operations for construction purposes or to bring the site up to a consistent grade." Visually, the reinforced and unreinforced concrete on Site No. 8 does not appear to have been placed in conjunction with a legitimate filling operation to bring the site up to a consistent grade and therefore could be construed as the improper disposal of construction demolition debris. Furthermore, no information was provided by either the Ohio EPA or the HCHD that this property has been licensed as a "waste site" for construction demolition debris disposal. In addition, MSG observed three empty ASTs on the Site, one of which had an attached hose and dispenser nozzle.

Project plans presently identify the acquisition of permanent right-of-way in conjunction with this Site. Given the undetermined point of origin, the potential for contaminants to be present within the fill material and the presence of the ASTs, MSG recommends this Site for a Phase II ESA.

Site No. 11, Campbell's Soup Supply Company, State Route 110 and County Road 12, Parcel No. 22-0700040100 et al.

Site No. 11 is a 921.63-acre property consisting of 18 parcels owned by the Campbell's Soup Supply Company. The southwest portion of the Site is comprised of the Campbell's Soup manufacturing plant while the remaining portions of the Site consist predominantly of undeveloped agricultural fields. Project plans presently identify the acquisition of permanent right-of-way in conjunction with Parcel No. 22-0700040100 of this Site, which is an undeveloped agricultural field located northeast of the Campbell's Soup plant. A review of historical aerial photographs indicates that Parcel No. 22-0700040100 has been used for agricultural purposes since at least 1950. Three former 10,000-gallon USTs were removed from the plant complex on the Site circa 1994 and their closure was granted NFA status by BUSTR. A review of available environmental records also indicates that the Campbell's plant was formerly subject to RCRA corrective actions for the following:

- The Main Plant operated as an unpermitted hazardous waste TSD facility from 1981 through 1983, when semi-solid hazardous wastes (waste coating material used on steel cans as a rust inhibitor) were dumped into a Former Holding Pit Area, allowed to dry and eventually were mixed with sand prior to disposal at a landfill; and
- From approximately 1981 to 1993, the liquid phase of the waste coating material (ignitable solvents) was poured onto a coal pile located on the grounds of the Main Plant and later burned in a boiler for energy recovery.

Both the former Holding Pit Area and former coal storage pile were located in the southwest portion of the Main Plant site, approximately 3,000-feet away from the proposed new bridge project area (Parcel No. 22-0700040100). Further, closure of the Former Holding Pit Area was conducted in accordance with an approved closure plan and was certified closed by the Ohio EPA on June 11, 2004. In addition, soil sampling beneath the former coal storage pile determined that the soil had not been impacted by the solvent wastes, and this violation was terminated by the Ohio EPA in a letter dated December 12, 1994.

MSG has not received or reviewed any other information or documentation pertaining to releases or potential releases of hazardous substances or petroleum to environmental media that would negatively impact the proposed new bridge project area. Records indicate that both the former USTs and RCRA corrective actions obligations were located in the southwest portion of the Main Plant site, approximately 3,000-feet away from the proposed new bridge project area (Parcel No. 22-0700040100), and both have been addressed to the satisfaction of applicable regulatory programs and agencies.

No further action is recommended in connection with Site No. 11 at this time.

7.2 Phase II Environmental Site Assessment Scope of Service

MSG's Phase II field investigation will be completed in accordance with common industry standards. MSG proposes that six borings be advanced across Site Nos. 6 and 8 to an anticipated depth of 15 feet below the existing ground surface (bgs), to characterize the nature and extent of the fil materials and to evaluate subsurface conditions for evidence of hazardous substances and/or petroleum associated with the disposal of the fill materials at these Sites. Proposed soil boring locations are provided on Figure 3 (Site No. 6) and Figure 4 (Site No. 8) located in Appendix A. Soil borings are proposed to be distributed as follows:

- Site 6: 3 borings.
- Site 8: 3 borings.

As required, MSG will contact the Ohio Utilities Protection Service (OUPS) prior to any drilling to arrange for existing utilities to be located in an effort to avoid damage. The soil borings will be advanced using a

Geoprobe®. Soil samples will be collected at continuous intervals the entire length of the borehole, and will be field screened using a hand-held flame or photo-ionization detector (FID or PID). In addition, a temporary well will be installed at each boring location to facilitate the collection of grab groundwater samples. Soil and groundwater samples from the borings will subsequently be analyzed for the following constituents:

- Site No. 6 – One soil and one groundwater sample will be collected from each of the three borings and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and RCRA metals.
- Site No. 8 – One soil and one groundwater sample will be collected from each of the three borings and analyzed for VOCs, SVOCs and RCRA metals.

8.0 REFERENCES

Historical Information Gatherers, GeoSearch Report. (Provided environmental database report, aerial photographs, historical topographic maps, city directories, and Sanborn Maps).

Henry County Auditor's website: http://co.henry.oh.us/index.php (Provided historical Property ownership information).

Lindsay, Jon. Henry County Health Department. Written Correspondence. January 15, 2015

ODNR Online Water Well Search: http://www.dnr.state.oh.us/water/maptechs/wellogs/app/

Ohio Department of Transportation, Office of Environmental Services, 2009. Environmental Site Assessment Guidelines; 1980 West Broad Street, Columbus, OH 43223; (614) 466-7100

Ohio Division of Geological Survey, 1998. Physiographic Regions of Ohio: Ohio Department of Natural Resources, Division of Geological Survey, page-size map with text, 2 p., scale 1:2,100,00.

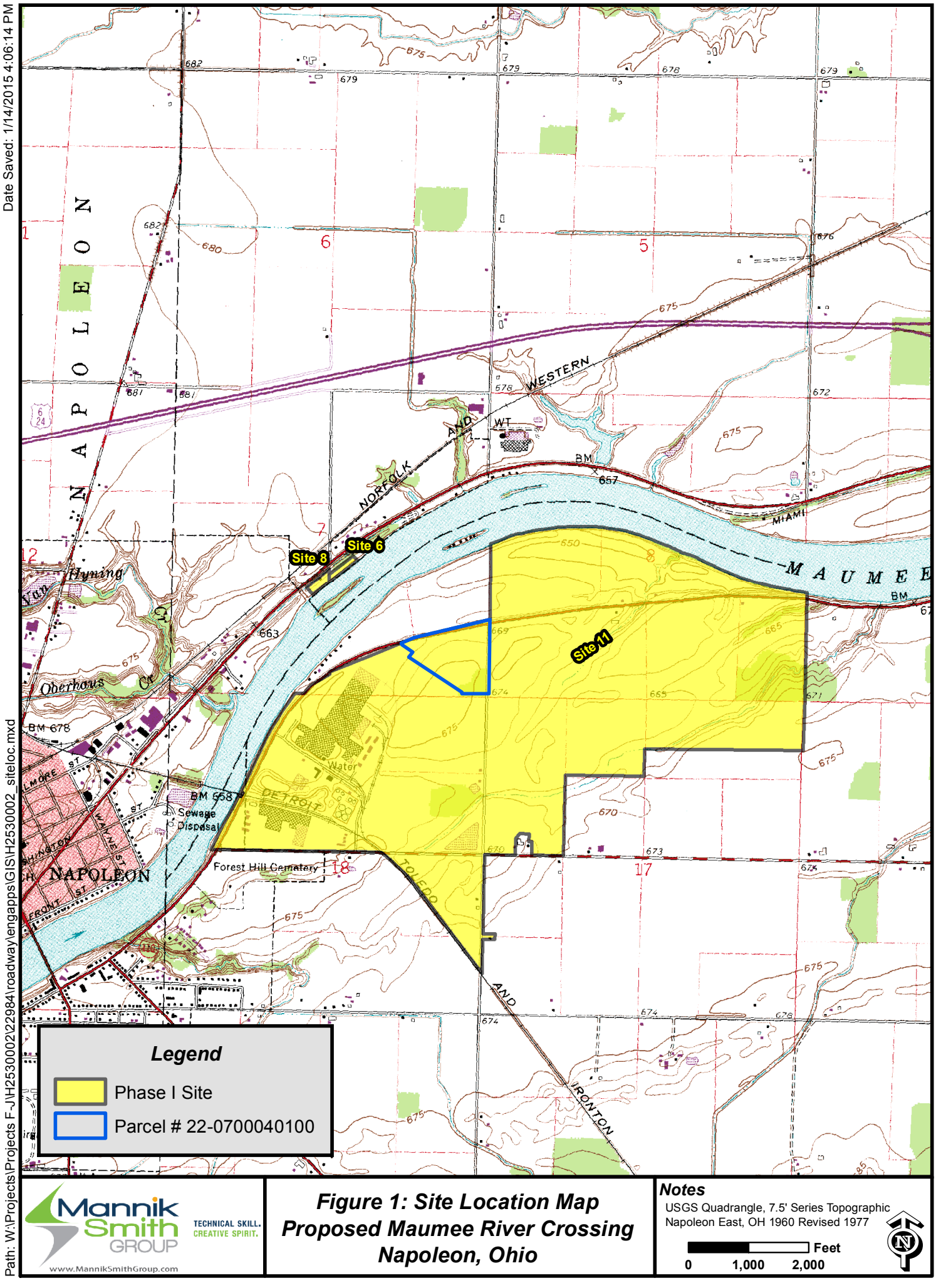
United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey website: http://websoilsurvey.nrcs.usda.gov (Provided soil types for the Property).

United States Department of Agriculture, Soil Conservation Service, 1974. Soil Survey of Henry County, Ohio. (Obtained soil descriptions for the Property).

USGS, 1960 (revised in 1977). 7.5 Series Topographic Map, Napoleon, Ohio.

APPENDIX A
FIGURES

Mannik Smith GROUP
60 years
TECHNICAL SKILL.
CREATIVE SPIRIT.



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Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

Figure 1: Site Location Map
Proposed Maumee River Crossing
Napoleon, Ohio

Notes
USGS Quadrangle, 7.5' Series Topographic
Napoleon East, OH 1960 Revised 1977

Feet
0 1,000 2,000

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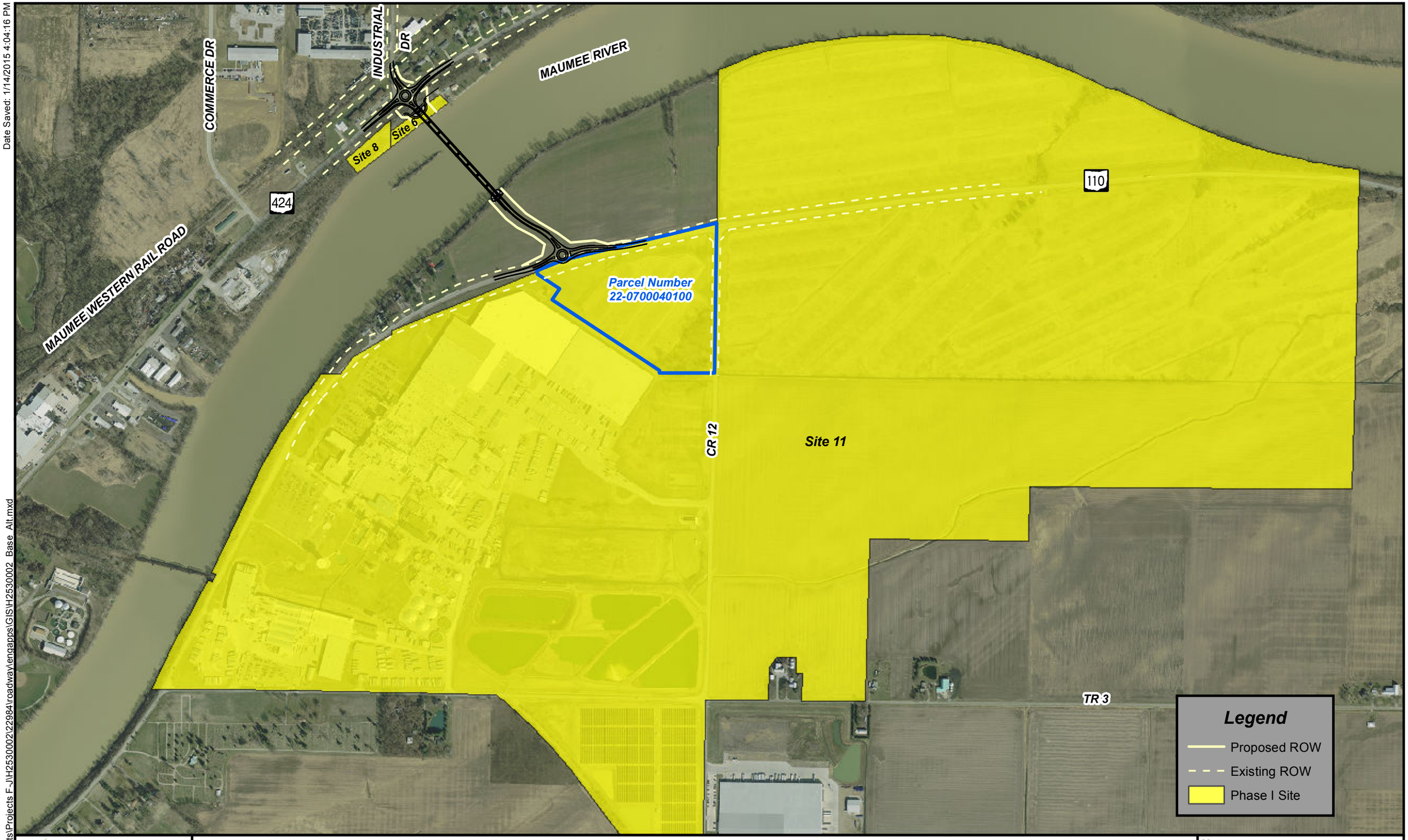

Mannik Smith GROUP
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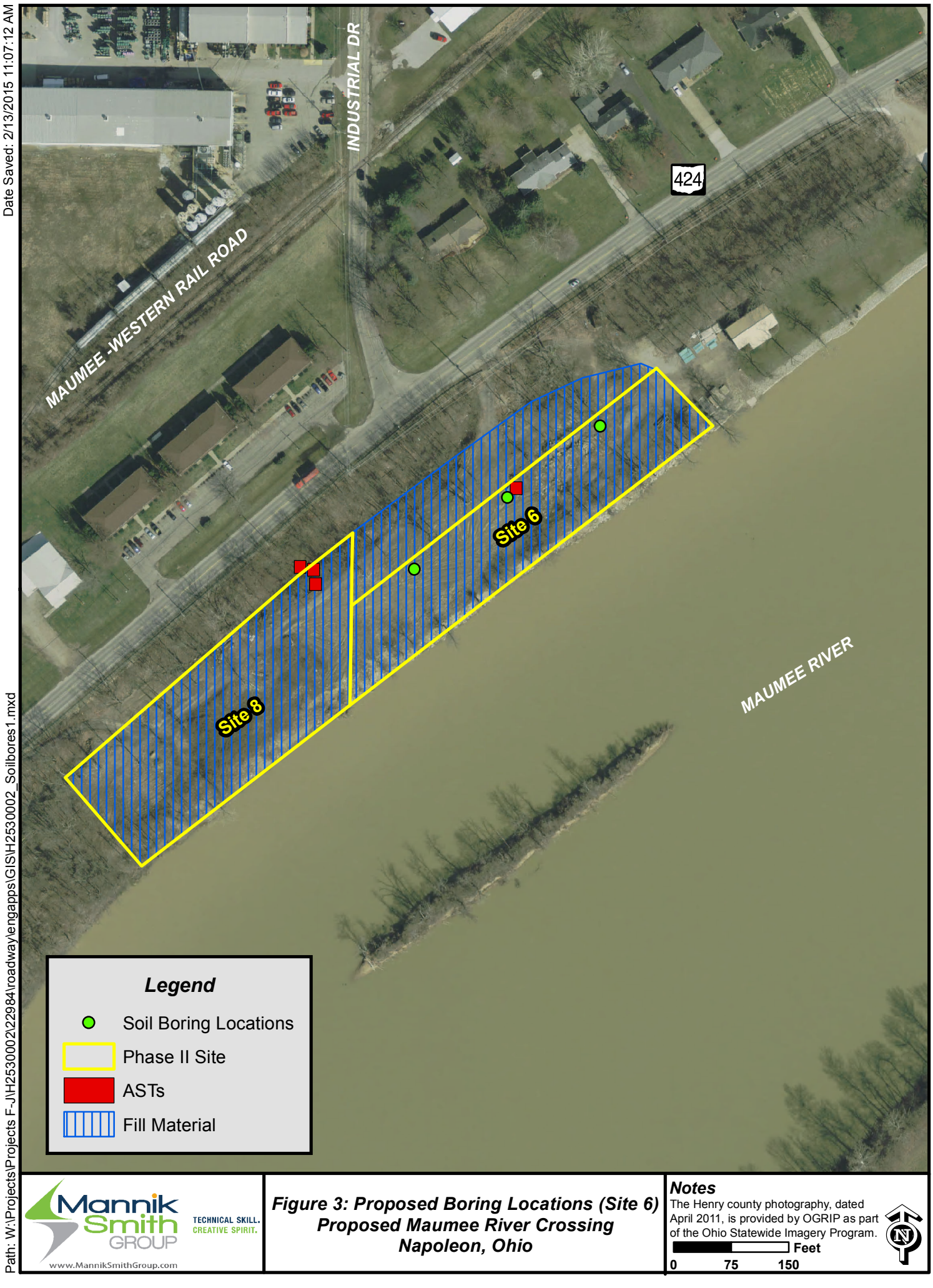
www.MannikSmithGroup.com

Figure 2: Study Area Layout Map
Proposed Maumee River Crossing
Napoleon, Ohio

Notes
The Henry County photography, dated April 2011, is provided by OGRIP as part of the Ohio Statewide Imagery Program.

Feet
0 500 1,000



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Mannik Smith GROUP
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Figure 3: Proposed Boring Locations (Site 6)
Proposed Maumee River Crossing
Napoleon, Ohio

Notes
The Henry county photography, dated April 2011, is provided by OGRIP as part of the Ohio Statewide Imagery Program.

Feet
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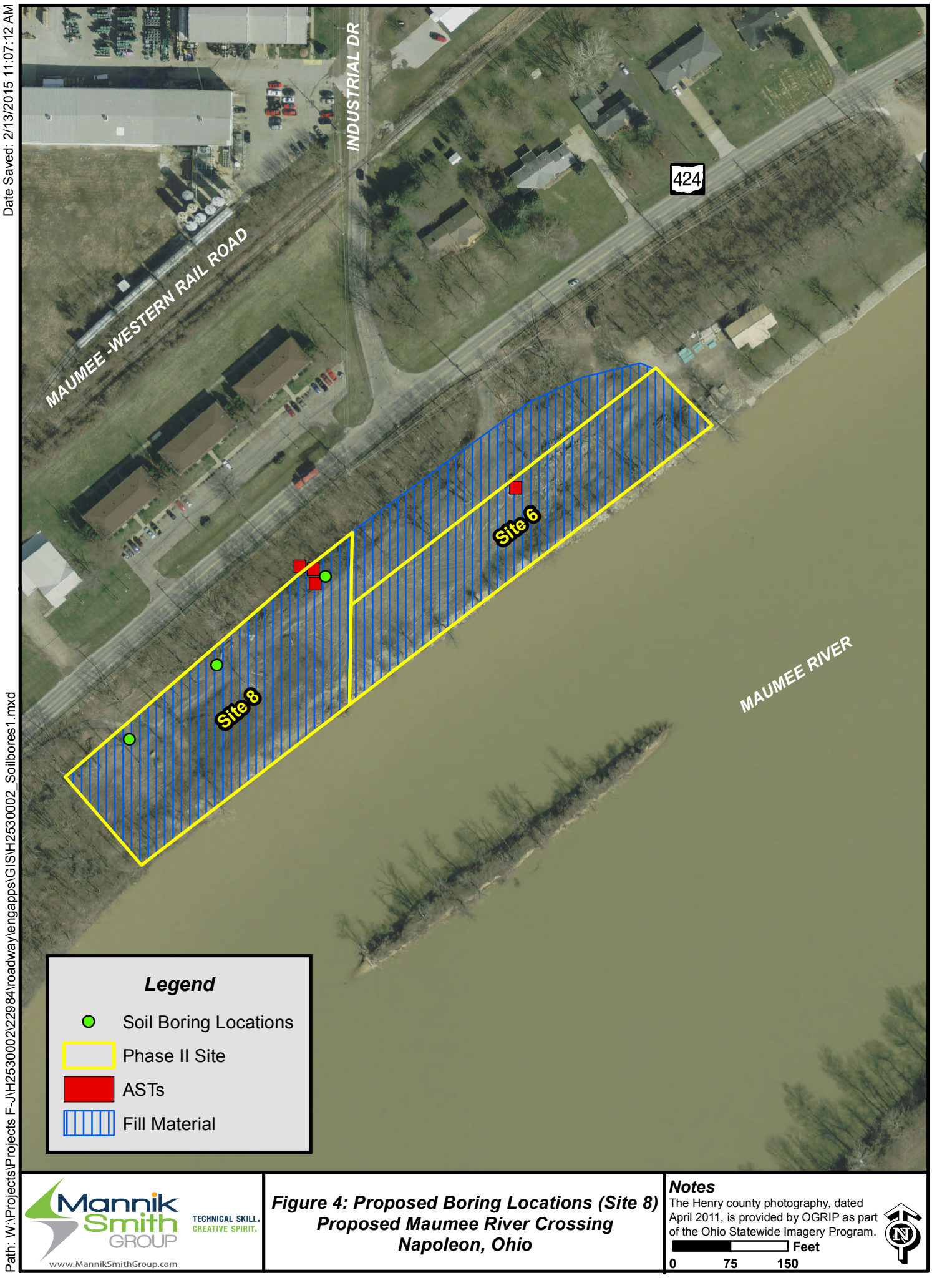

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Mannik Smith GROUP
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Figure 4: Proposed Boring Locations (Site 8)
Proposed Maumee River Crossing
Napoleon, Ohio

Notes
The Henry county photography, dated April 2011, is provided by OGRIP as part of the Ohio Statewide Imagery Program.

Feet
0 75 150

APPENDIX B
HISTORICAL MAPS

Mannik Smith GROUP
60 years
TECHNICAL SKILL.
CREATIVE SPIRIT.

TOPOGRAPHIC MAPS

Mannik Smith GROUP

60 years

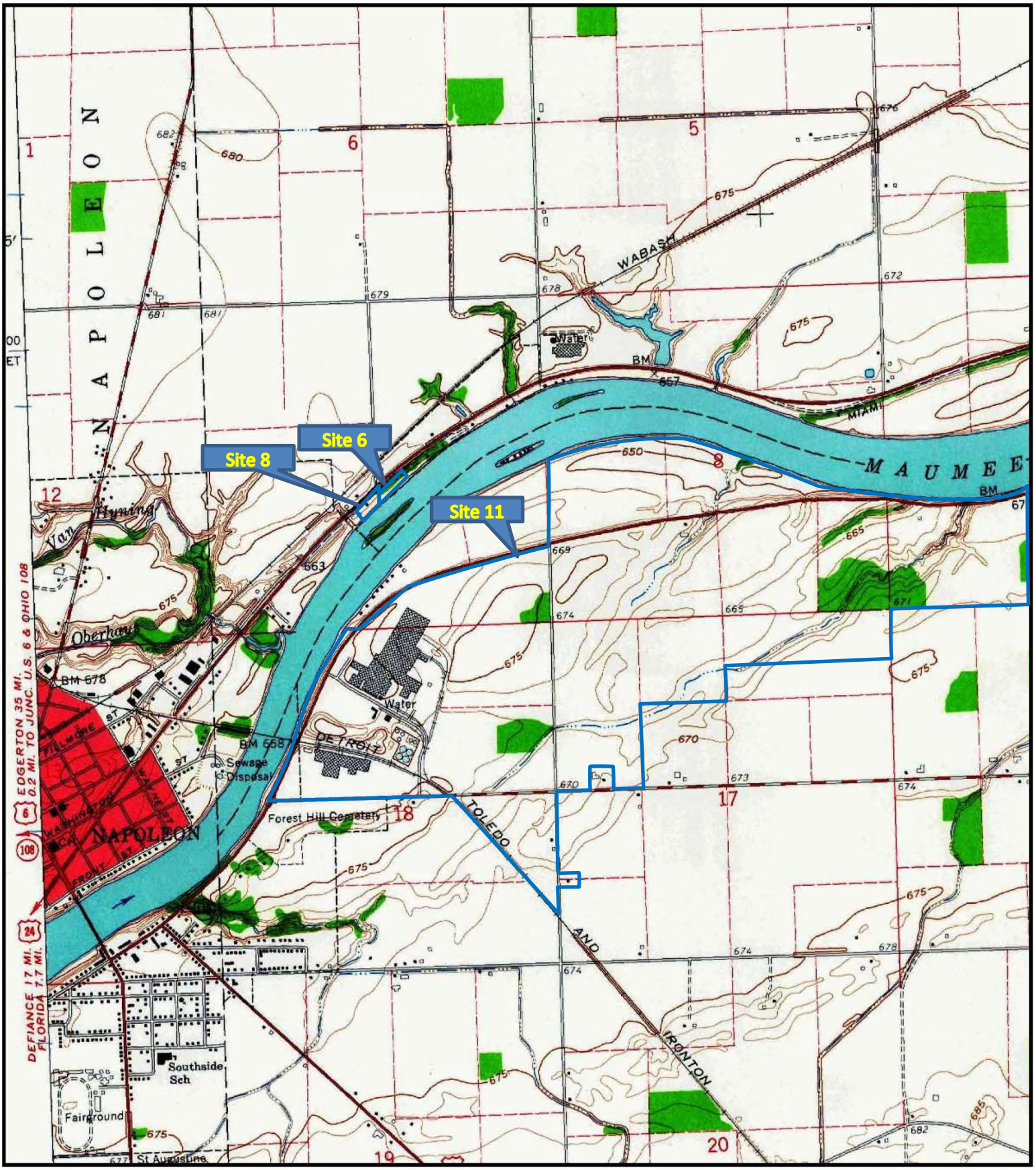
TECHNICAL SKILL.
CREATIVE SPIRIT.



1908
Napoleon, Ohio Quadrangle
USGS 15 Minute Topographic Map

0 0.2 0.4 0.8 Miles
0 1,250 2,500 5,000 Feet
0 0.375 0.75 1.5 Km

HIG



1960

Napoleon East, Ohio Quadrangle
USGS 7.5 Minute Topographic Map

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0 1,250 2,500 5,000 Feet
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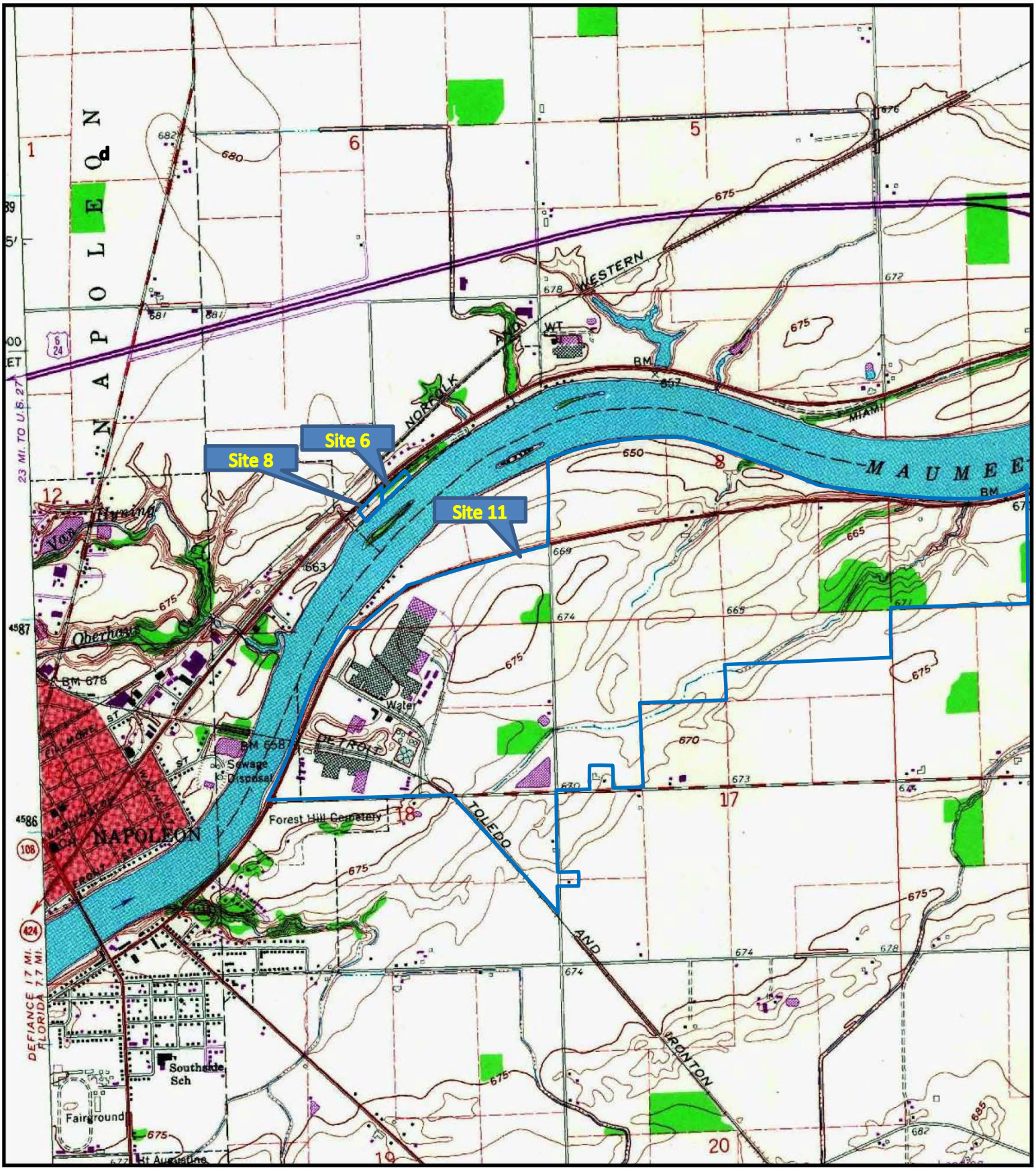
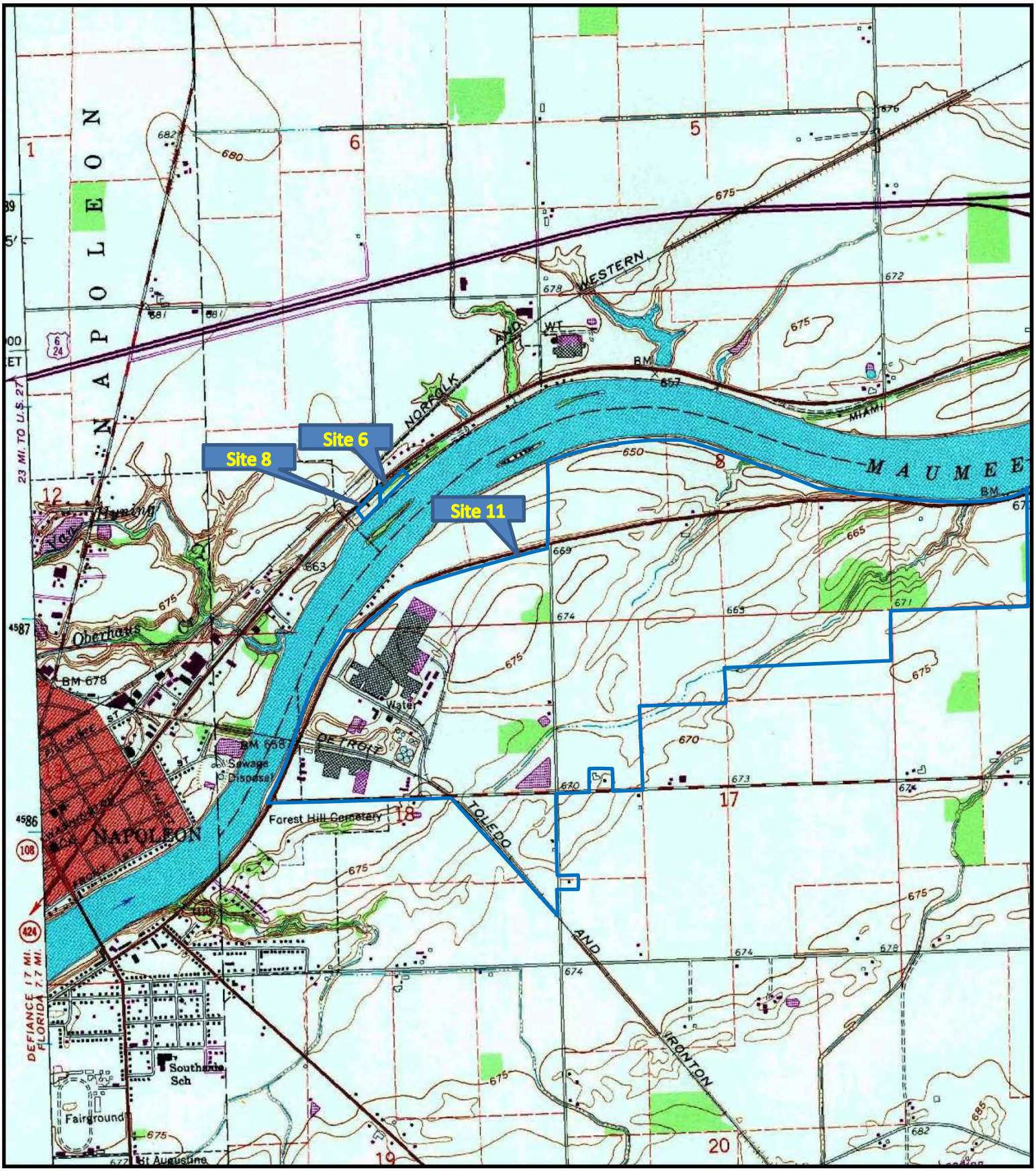
HIG



1971
Napoleon East, Ohio Quadrangle
USGS 7.5 Minute Topographic Map

0 0.2 0.4 0.8 Miles
0 1,250 2,500 5,000 Feet
0 0.375 0.75 1.5 Km

HIG



1977
Napoleon East, Ohio Quadrangle
USGS 7.5 Minute Topographic Map

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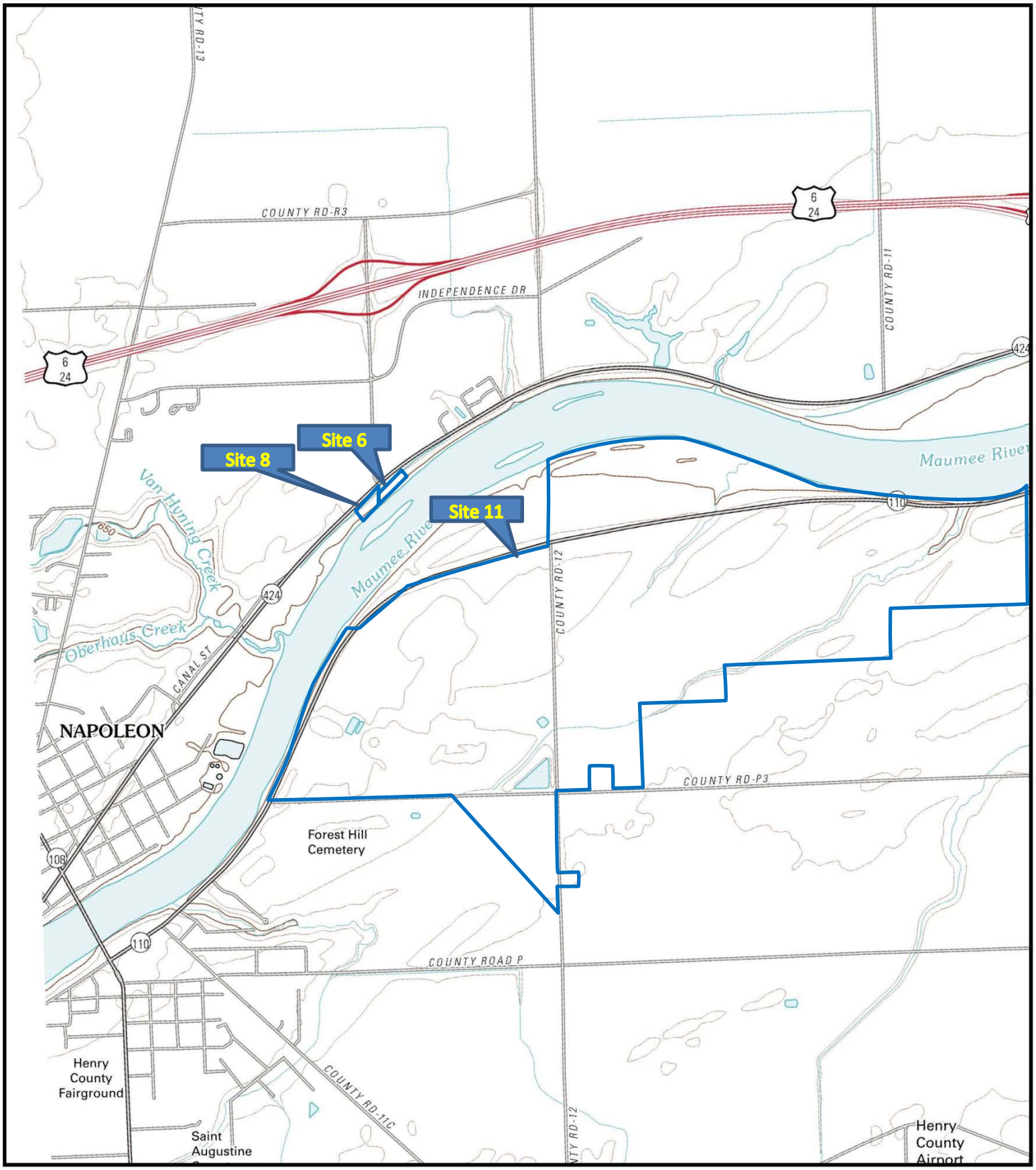
HIG



2010
Napoleon East, Ohio Quadrangle
USGS 7.5 Minute Topographic Map

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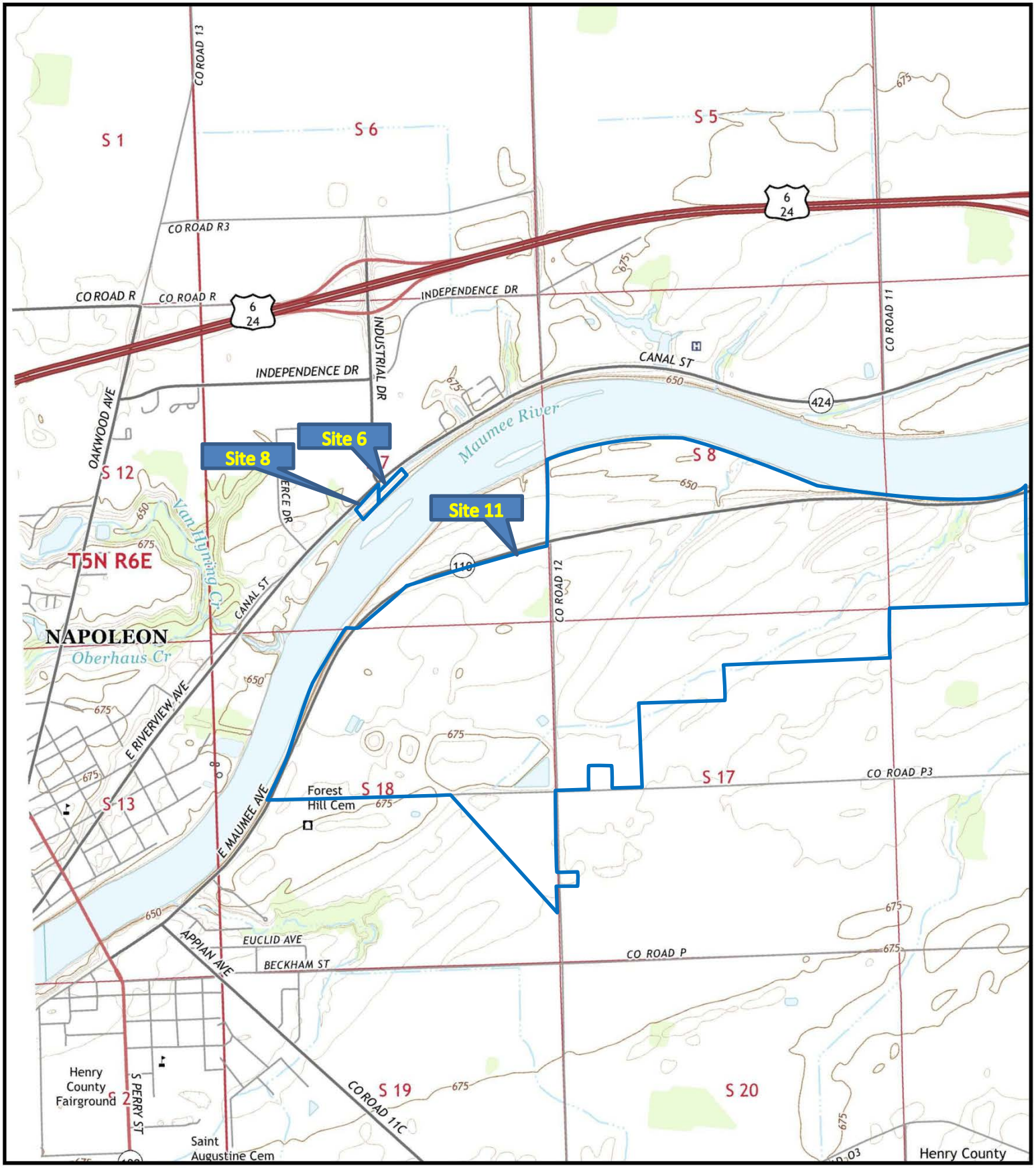
0 1,250 2,500 5,000 Feet
0 0.375 0.75 1.5 Km

HIG



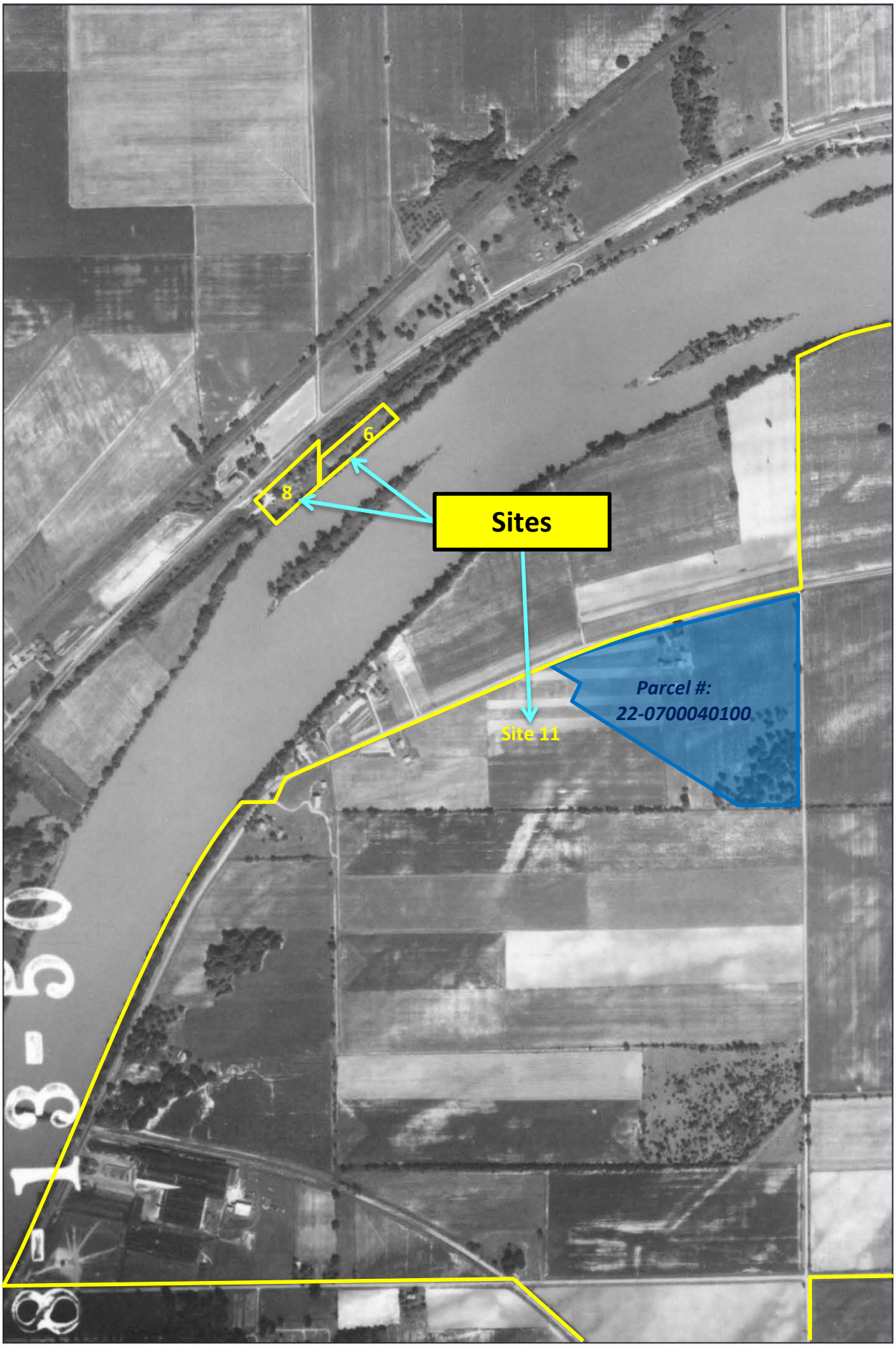
2013
Napoleon East, Ohio Quadrangle
USGS 7.5 Minute Topographic Map

0 0.2 0.4 0.8 Miles
0 1,250 2,500 5,000 Feet
0 0.375 0.75 1.5 Km

HIG

AERIAL PHOTOGRAPHS

Mannik Smith GROUP
60 years
TECHNICAL SKILL.
CREATIVE SPIRIT.



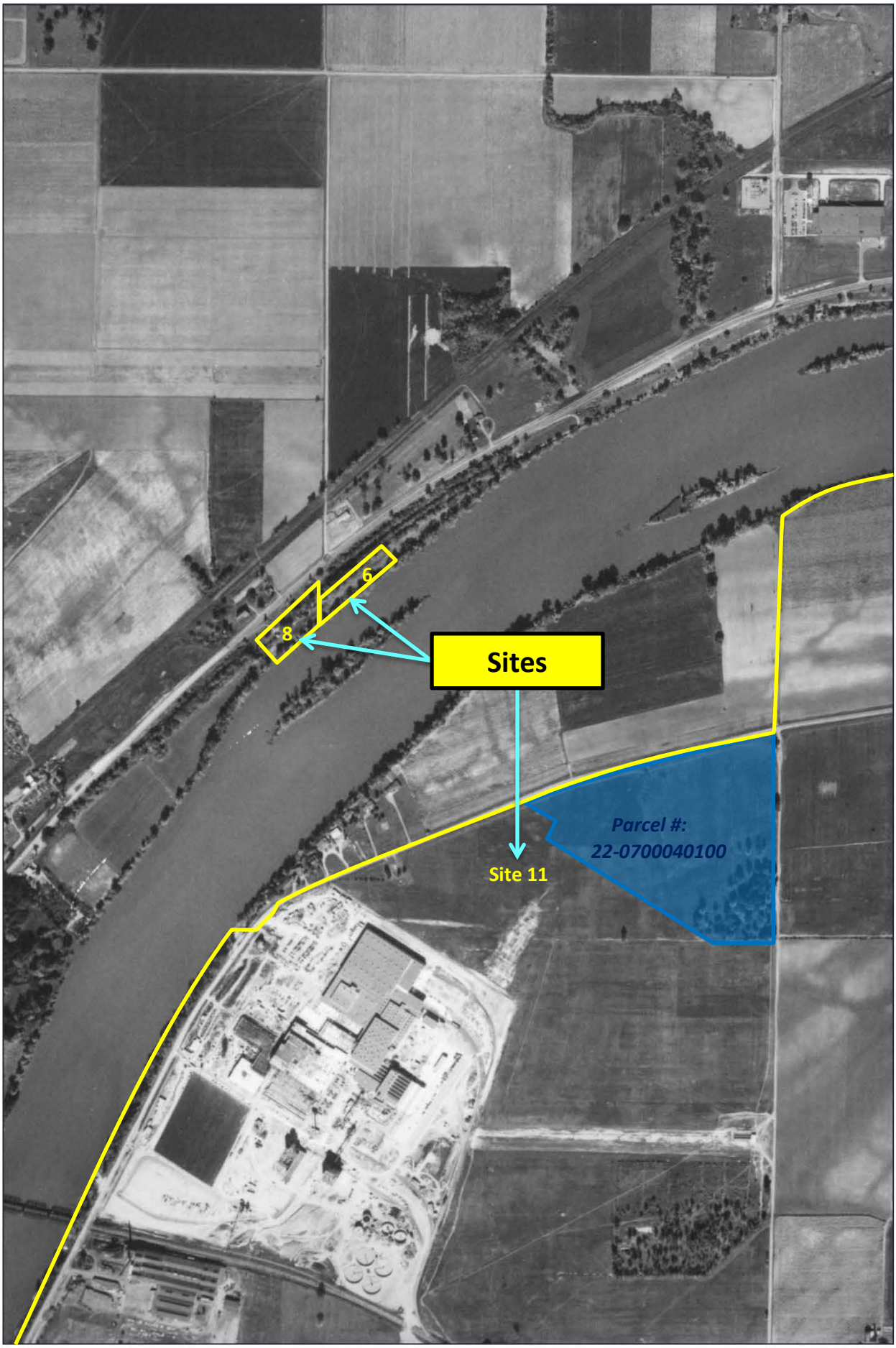
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1950

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



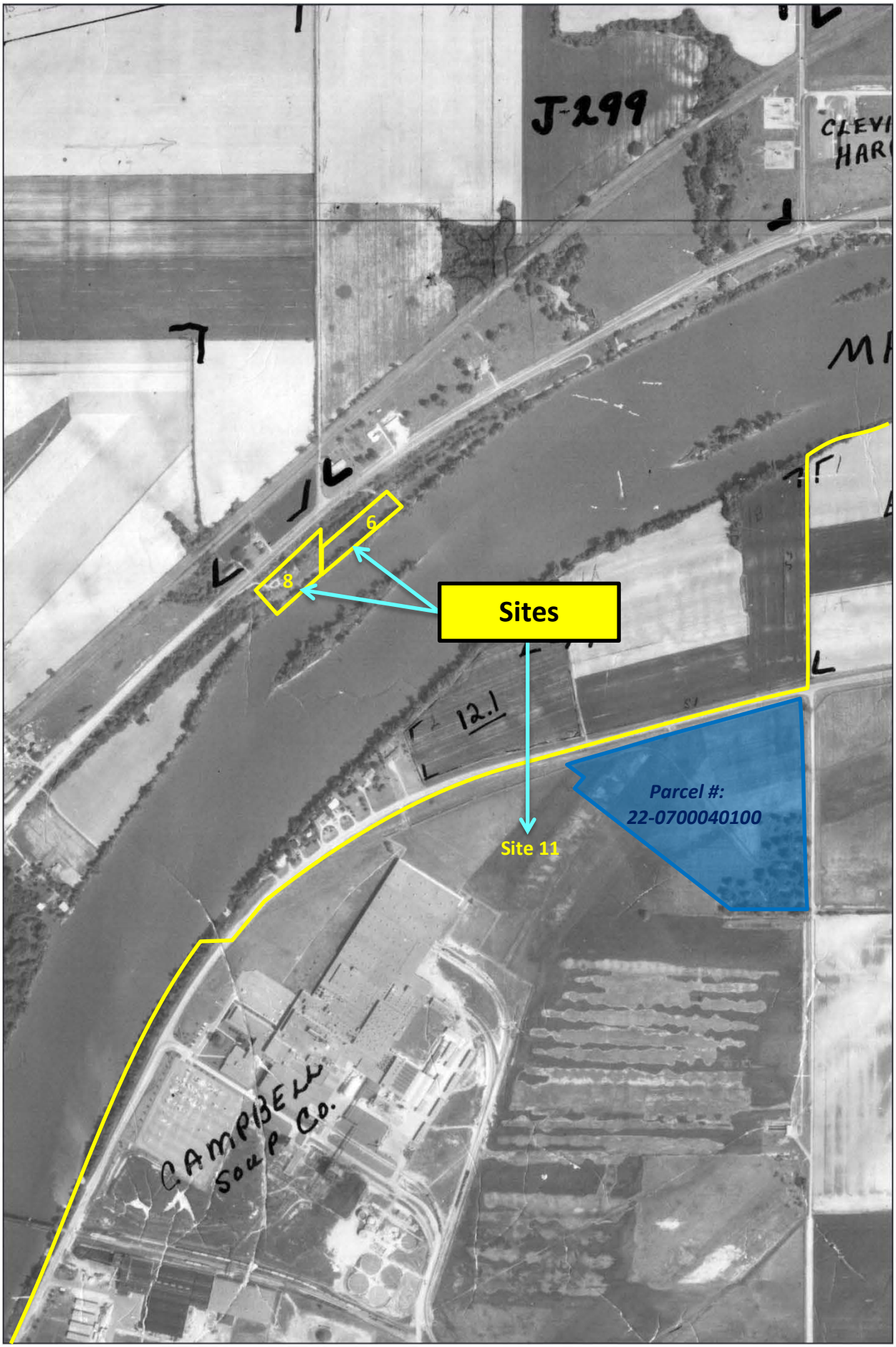
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1956

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



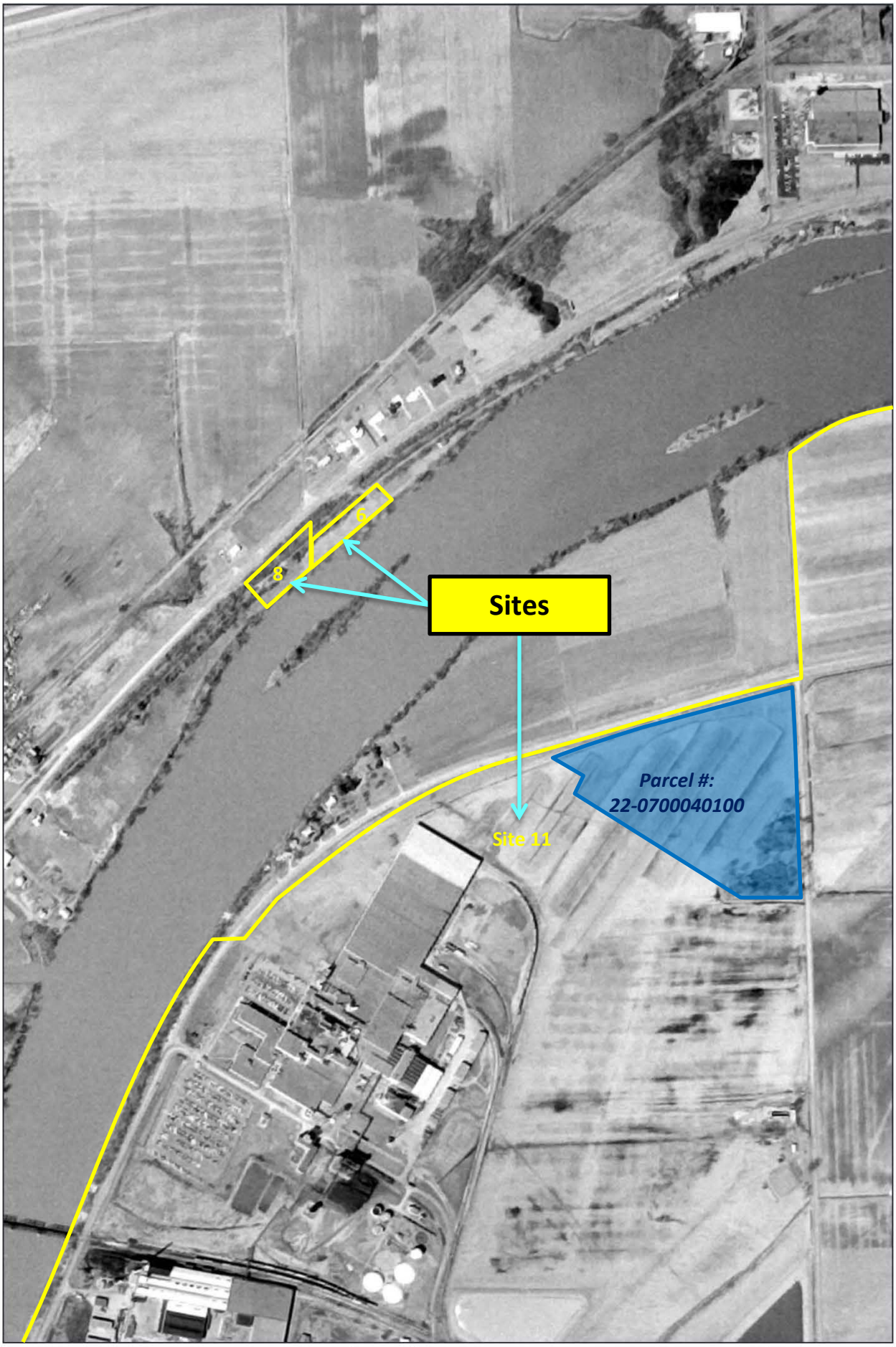
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1963

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



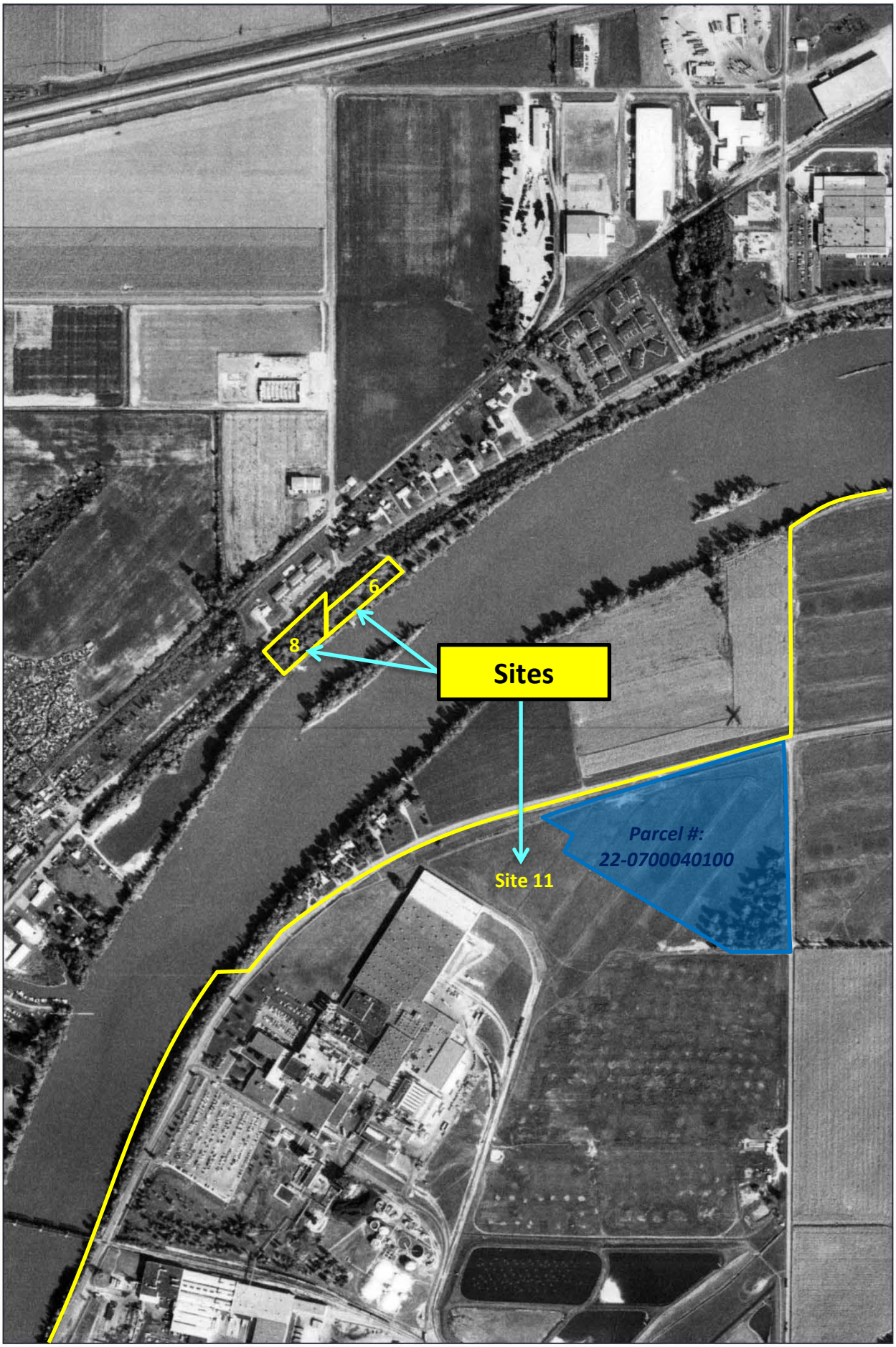
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1971

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



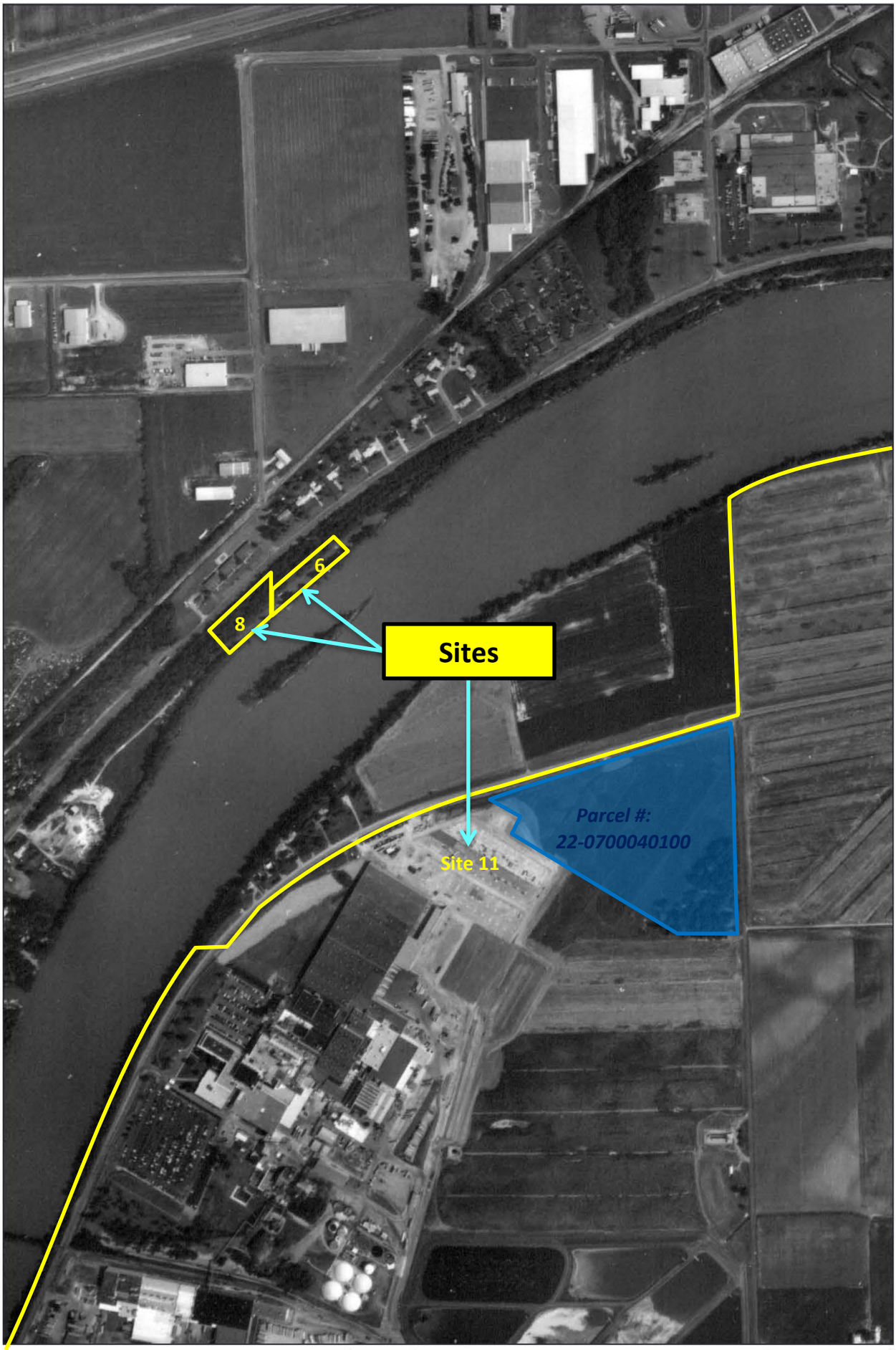
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1980

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



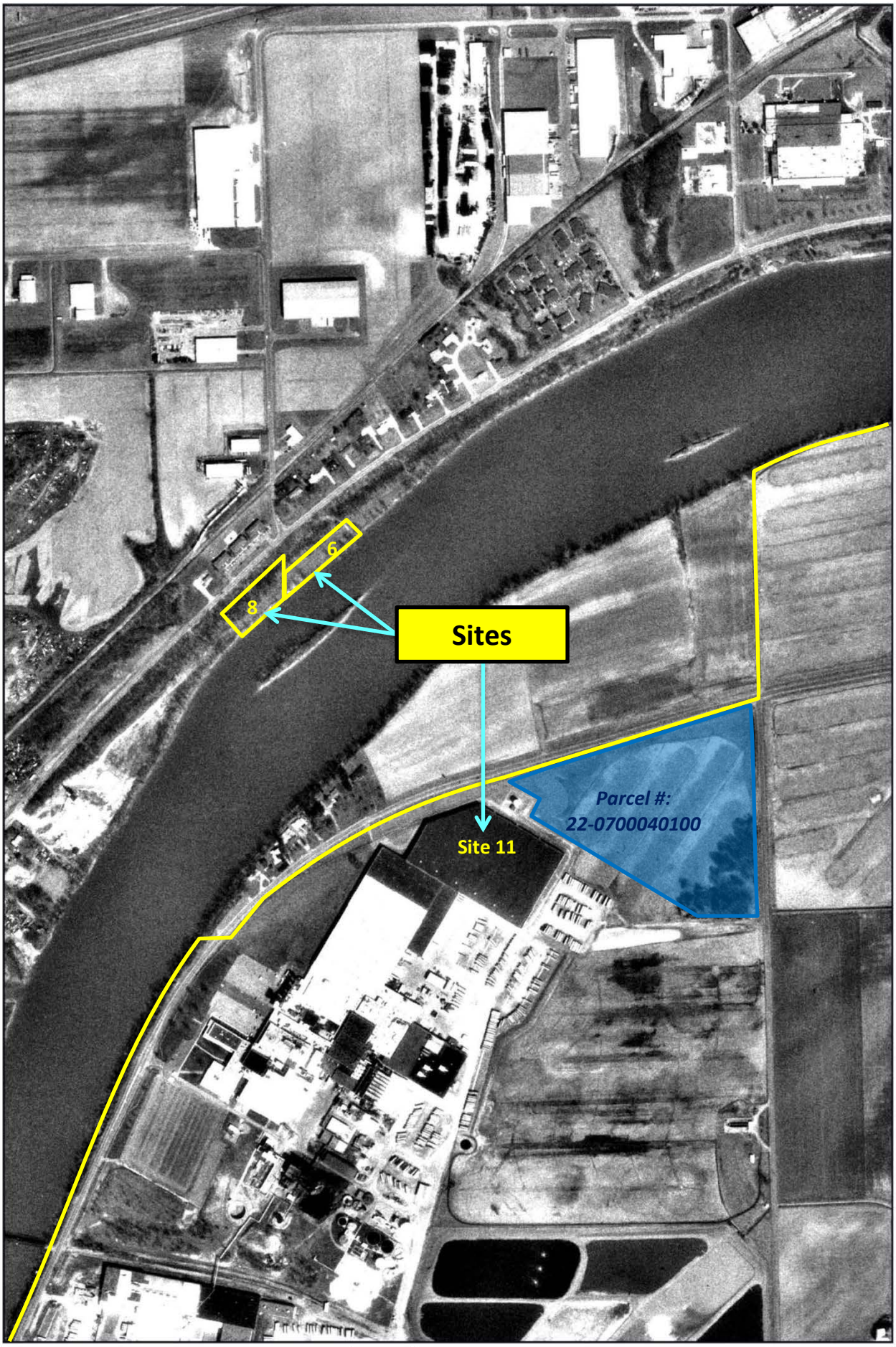
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1989

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



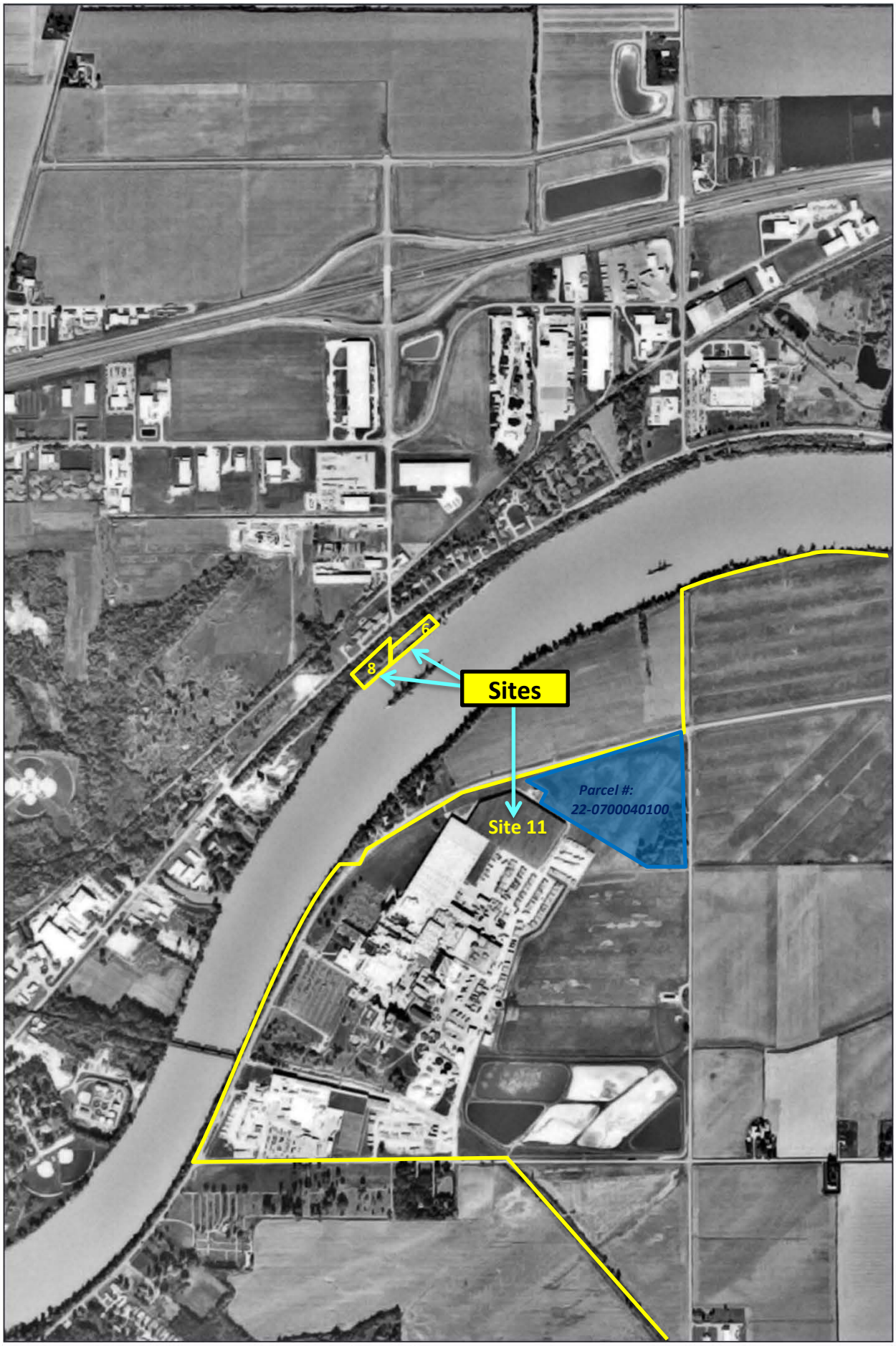
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1994

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



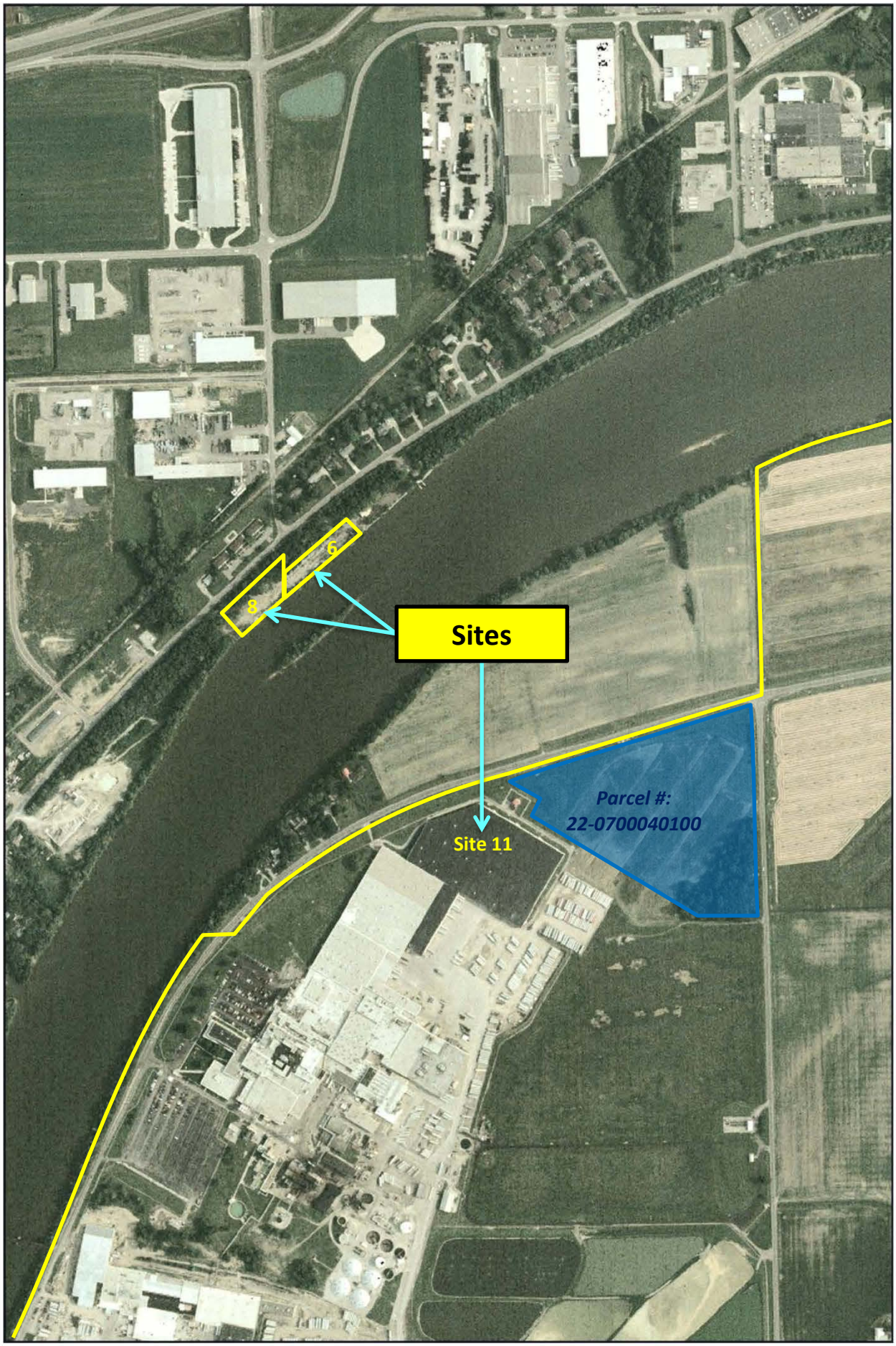
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

2000

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:9600 (1"=800')

HIG



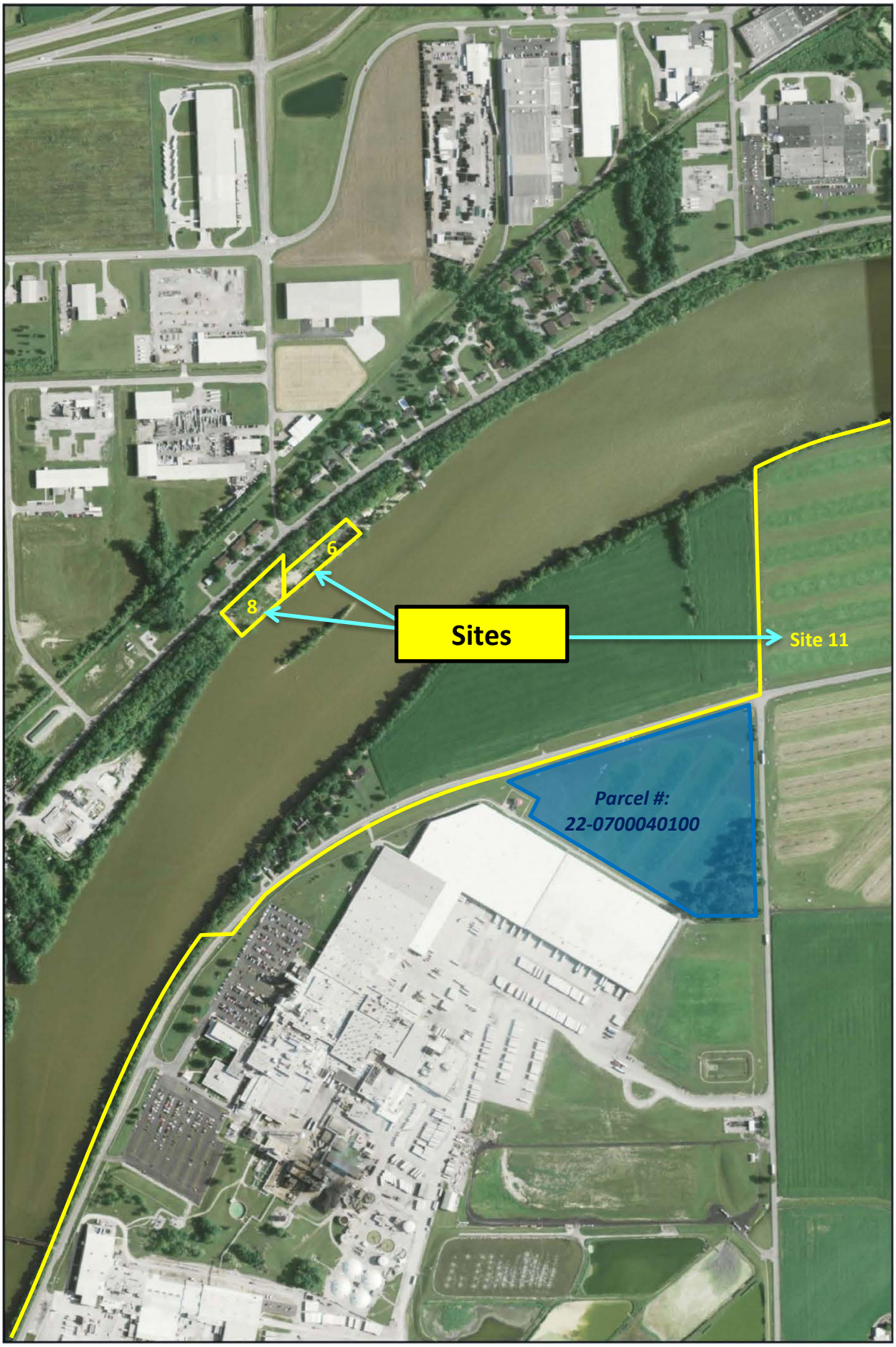
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

2004

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

2009

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG

APPENDIX C
PRELIMINARY PLANS

Mannik Smith GROUP
60 years
TECHNICAL SKILL.
CREATIVE SPIRIT.

STATE OF OHIO

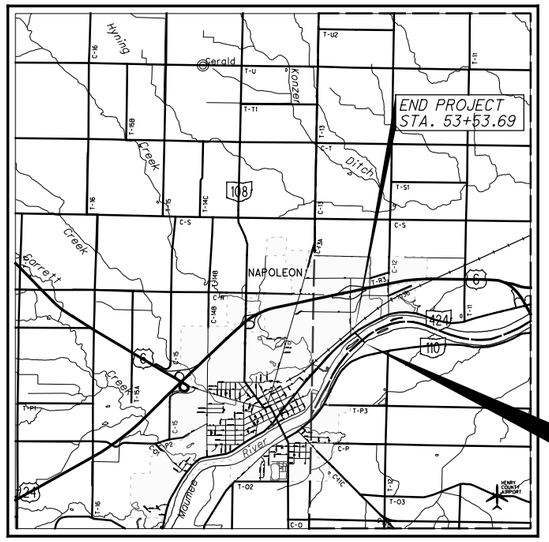
DEPARTMENT OF TRANSPORTATION

HEN-NEW MAUMEE RIVER BRIDGE

CITY OF NAPOLEON

HARRISON TOWNSHIP

HENRY COUNTY



LOCATION MAP

LATITUDE: 41°24'17" LONGITUDE: 84°06'14"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED _____

INTERSTATE HIGHWAY _____

FEDERAL ROUTES _____

STATE ROUTES _____

COUNTY & TOWNSHIP ROADS _____

OTHER ROADS _____

DESIGN DESIGNATION

SEE SCHEMATIC SHEET X _____

NHS PROJECT _____ NO

DESIGN EXCEPTIONS

INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATIC PLAN	2
BENCHMARKS & HORIZONTAL CONTROL	3
TYPICAL SECTIONS	4-8
GENERAL NOTES	9
PLAN AND PROFILE (INDUSTRIAL DR.)	10-13
PLAN AND PROFILE (RIVERVIEW AVE.)	14-16
PLAN AND PROFILE (S.R. 110)	17-19
CROSS SECTIONS (INDUSTRIAL DR.)	20-26
CROSS SECTIONS (RIVERVIEW AVE.)	27-33
CROSS SECTIONS (S.R. 110)	34-40
ROUNDABOUT GEOMETRIC DETAILS	41-45
ROUNDABOUT GRADING DETAILS	46
DRIVE DETAILS	47
DRIVE PROFILES	48
TRAFFIC CONTROL	49-54
STRUCTURES 20' AND OVER	55-59
SOIL PROFILES/ FOUNDATION INVESTIGATIONS	

PROJECT DESCRIPTION

EXTENSION OF INDUSTRIAL DRIVE OVER THE MAUMEE RIVER. THE PROJECT INCLUDE THE CONSTRUCTION OF A NEW STRUCTURE, NEW ROADWAY FROM RIVERVIEW AVE. TO S.R. 110, THE RECONSTRUCTION OF INDUSTRIAL DR., RIVERVIEW AVE. AND S.R. 110 AND TWO ROUNDABOUTS.

PROJECT EARTH DISTURBED AREA: 8.10 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 1.80 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 9.90 ACRES

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE PART TIME CLOSING OF THE HIGHWAY TO TRAFFIC, AS NOTED ON SHEET . DURING WHICH TIME DETOURS WILL BE PROVIDED AS SHOWN HEREIN. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS UNDERGROUND
PROTECTION SERVICE CALL: **1-800-925-0988**

PLAN PREPARED BY:

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

ENGINEERS SEAL:

SIGNED: _____
DATE: _____

ENGINEERS SEAL:

SIGNED: _____
DATE: _____

STANDARD CONSTRUCTION DRAWINGS					SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. G020069

PID NO. 22984

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
MICHIGAN SOUTHERN RAILROAD

HEN-NEW MAUMEE RIVER BRIDGE

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S.R. 110
CURVE DATA
P.I.STA. 97+48.28
Δ = 21° 40′ 09″ (RT)
Dc = 2° 00′ 00″
R = 2,864.80′
T = 548.28′
L = 1,083.46′
E = 51.99′
emax = 0.045

S.R. 110
CURVE DATA
P.I.STA. 103+94.64
Δ = 20° 59′ 50″ (LT)
Dc = 9° 32′ 57″
R = 600.00′
T = 111.19′
L = 219.88′
E = 10.22′
emax = NC

S.R. 110
EX. CURVE DATA
P.I.STA. 90+33.37
Δ = 49° 52′ 00″ (RT)
Dc = 2° 00′ 00″
R = 2,864.80′
T = 1,331.82′
L = 2,493.34′
E = 294.45′
emax=0.045

S.R. 110
CURVE DATA
P.I.STA. 105+83.15
Δ = 18° 08′ 21″ (RT)
Dc = 11° 27′ 33″
R = 500.00′
T = 79.81′
L = 158.29′
E = 6.33′
emax = NC

S.R. 110
CURVE DATA
P.I.STA. 107+61.70
Δ = 11° 25′ 43″ (RT)
Dc = 5° 43′ 46″
R = 1,000.00′
T = 100.06′
L = 199.47′
E = 4.99′
emax = NC

BEGIN WORK
STA. 100+50.00

PT STA. 101+94.89

PRC STA. 102+83.46

PC STA. 31+42.43

PRC STA. 105+03.34

℄ R/W S.R. 110

PCC STA. 106+61.63

PRC STA. 108+61.10

S.R. 110
CURVE DATA
P.I.STA. 111+03.62
Δ = 10° 20′ 30″ (LT)
Dc = 2° 08′ 16″
R = 2,680.00′
T = 242.53′
L = 483.74′
E = 10.95′
emax = NC

S.R. 110

℄ R/W & CONST. S.R. 110

℄ CONST. 110

CULTIVATED

INDUSTRIAL DR.
CURVE DATA
P.I.STA. 36+63.17
Δ = 22° 55′ 17″ (RT)
Dc = 7° 23′ 35″
R = 775.00′
T = 157.12′
L = 310.04′
E = 15.77′
emax = NC

INDUSTRIAL DR.
CURVE DATA
P.I.STA. 33+37.88
Δ = 52° 05′ 04″ (LT)
Dc = 14° 19′ 26″
R = 400.00′
T = 195.46′
L = 363.62′
E = 45.20′
emax = NC

CULTIVATED

℄ R/W & CONST. INDUSTRIAL DR.

PRC STA. 35+06.04

PT Sta. 38+16.09

STA. 32+01.52 ℄ R/W & CONST. INDUSTRIAL DR.=
STA. 106+42.53 ℄ CONST S.R. 110

PC STA. 31+42.43 ℄ R/W & CONST. INDUSTRIAL DR.=
STA. 106+40.00 ℄ EX. S.R. 110

GO20069

BEGIN PROJECT
PT STA. 31+42.43

END WORK
STA. 113+44.83

PT STA. 113+44.83 BK=
STA. 113+34.33 AHD

HARRISON TOWNSHIP

CITY OF NAPOLEON

MAUMEE RIVER

℄ R/W & CONST. RIVERVIEW AVE.

Ex R/W

INDUSTRIAL DR.
CURVE DATA
P.I.Sta. 52+17.04
Δ = 43° 25′ 15″ (RT)
Dc = 16° 22′ 13″
R = 350.00′
T = 139.36′
L = 265.24′
E = 26.72′
emax = NC

BEGIN WORK
STA. 589+31.35

PC STA. 590+46.19

STA. 50+59.41 ℄ R/W & CONST. INDUSTRIAL DR.=
STA. 593+78.62 ℄ R/W & CONST. RIVERVIEW AVE.

CORPORATION LIMIT
STA. 43+11.18

N 42° 27′ 08″ W 45

INDUSTRIAL DR.

STRUCTURE NO
HEN-XXX-XXXX

END PROJECT
STA. 53+53.69

GO20069

RESIDENTIAL

RAILROAD
STA. 53+63.19

PT STA. 53+42.92 BK=
STA. 53+42.92 AHD

PC STA. 50+17.88

END WORK
STA. 598+61.61

RIVERVIEW AVE.

RESIDENTIAL

MICHIGAN SOUTHERN
RAILROAD

RIVERVIEW AVE.
EX. CURVE DATA
P.I.STA. 596+98.18
Δ = 12° 59′ 05″ (RT)
Dc = 1° 00′ 00″
R = 5,729.16′
T = 651.98′
L = 1,298.38′
E = 36.98′
emax=0.025

LIBERTY TOWNSHIP

PT Sta. 603+44.57

DESIGN DESIGNATION

	INDUSTRIAL DRIVE	RIVERVIEW AVENUE	S.R. 110
CURRENT ADT (2015)	7390	3230	5740
DESIGN YEAR ADT (2035)	8010	3510	6230
DESIGN HOURLY VOLUME (2035)	910	380	700
DIRECTIONAL DISTRIBUTION	55%	50%	50%
TRUCKS (24 HOUR B&C)	9%	12%	6%
T_D	5%	7%	14%
DESIGN SPEED	40	55	60
LEGAL SPEED	35	50	55
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN COLLECTOR	URBAN MINOR ARTERIAL	URBAN MINOR ARTERIAL

HORIZONTAL SCALE IN FEET
0 50 100 200

SCHEMATIC PLAN

HEN-NEW MAUMEE RIVER BRIDGE

2
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PRIMARY PROJECT CONTROL INFORMATION				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
ARP1	638573.6970	1528220.3138	678.11	IPINS /CIR
ARP2	638206.8882	1528219.4996	678.39	IPINS /CIR
ARP3	638499.0526	1529338.0111	674.81	IPINS /CIR
ARP4	637071.1187	1527468.4342	671.16	IPINS /CIR
ARP5	636091.1981	1528575.4343	667.46	IPINS /CIR
ARP6	635754.7549	1528038.3710	671.21	IPINS /CIR
JAS500	637266.4642	1527666.6053	670.59	MAG SPIKE
JEW1	636329.8015	1529263.7085	667.21	IPINS /CIR
JEW2	636549.8196	1530198.8952	665.77	IPINS /CIR
JEW3	636112.8419	1530882.4102	671.58	IPINS /CIR
JEW4	637659.8855	1528148.4581	678.13	IPINS /CIR
JEW5	637834.1903	1528370.4531	677.75	IPINS /CIR
JEW6	637483.2673	1528308.0899	657.38	IPINS /CIR
JEW7	637594.2634	1528367.7320	658.49	IPINS /CIR
JEW8	637725.4669	1528460.3426	660.03	MAG
JEW9	637889.5540	1528167.4761	678.45	IPINS /CAP
JEW10	637533.8146	1528056.8241	676.36	IPIN -CAP
JEW11	637404.8315	1527907.9181	675.19	IPIN -CAP
JEW12	637242.5817	1527729.1355	673.40	IPIN -CAP
JJL1	638118.1772	1528248.0499	678.06	IPINS /CIR
JJL2	637886.5906	1528504.3997	675.99	IPINS
JJL3	638056.5414	1528759.0865	674.94	IPINS
JJL4	638204.6910	1529006.4512	673.59	IPINS
JJL5	638131.5868	1528882.9361	674.10	MAGS
MSGBASE1	637271.9148	1526923.5899	678.73	IPINS /CIR

VERTICAL CONTROL INFORMATION			
POINT NO.	ELEVATION	DESCRIPTION	
BM18	680.83	CMON /BRASS DISC	STA. 65+94.80-134.94' LT CL INDUSTRIAL DR.
BM38	672.71	CMON /BRASS DISC	STA. 55+02.58-19.45' RT CL SR110
BM82	677.06	CMON /BRASS DISC	STA. 578+65.55-540.18' LT CL RIVERVIEW

CALCULATED | CHECKED

BENCHMARKS AND HORIZONTAL CONTROL

HEN-NEW MAUMEE RIVER BRIDGE

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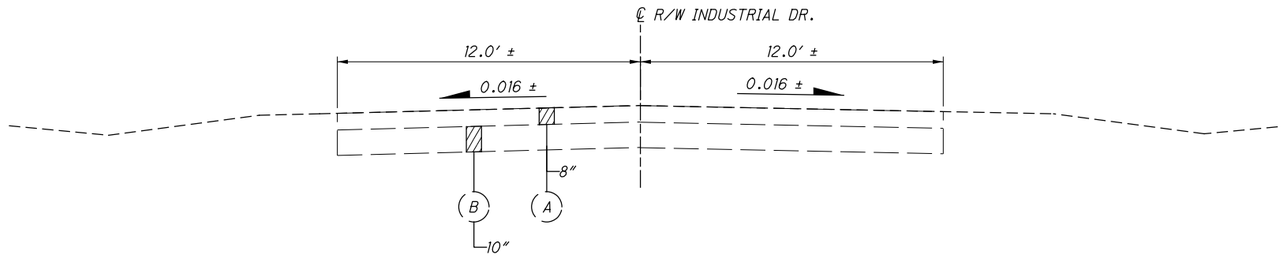
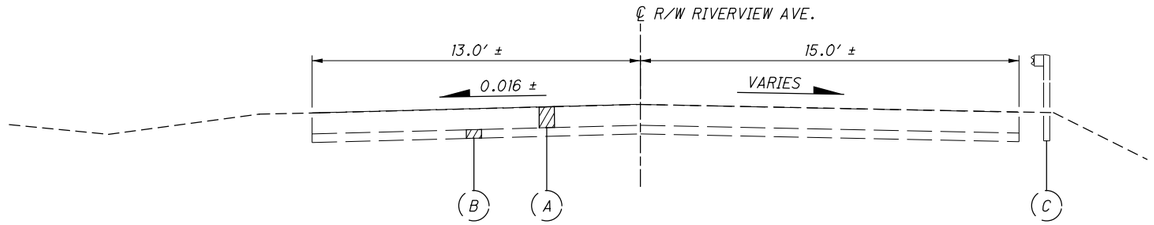
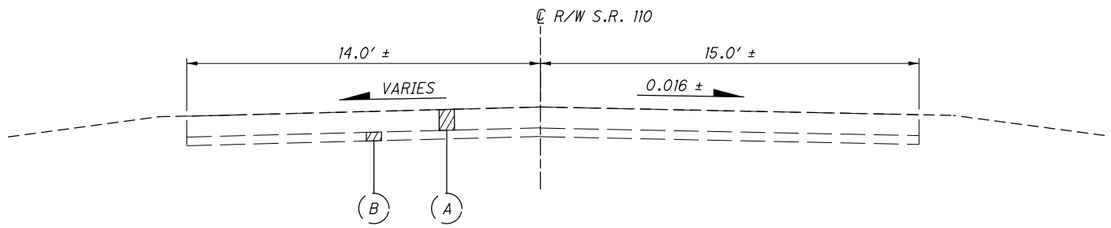


EXISTING SECTION - INDUSTRIAL DR.



EXISTING SECTION - RIVERVIEW AVE.



EXISTING SECTION - S.R. 110

LEGEND

1. ITEM 446 - 1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
2. ITEM 446 - 1¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
3. ITEM 301 - 6″ ASPHALT CONCRETE BASE, PG64-22
4. ITEM 304 - 6″ AGGREGATE BASE
5. ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SY)
6. ITEM 407 - TACK COAT (0.075 GAL/SY)
7. ITEM 203 - SUBGRADE COMPACTION
8. ITEM 605 - 6″ SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP
9. ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2
10. ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 3, AS PER PLAN
11. ITEM 609 - CURB, TYPE 2-A
12. ITEM 609 - CURB, TYPE 6
13. ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: DECORATIVE, 8″ THICK (TRUCK APRON)
14. ITEM 608 WALKWAY MISC.: DECORATIVE CONCRETE, 6″ THICK (SPLITTER ISLAND)
15. ITEM 608 - 4″ CONCRETE WALK
16. ITEM 659 - SEEDING AND MULCHING
17. ITEM 526 - REINFORCED CONCRETE APPROACH SLAB. (T=17″), AS PER PLAN
18. ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS
19. ITEM 204 - EXCAVATION OF SUBGRADE

    ITEM 204 - GRANULAR MATERIAL, TYPE C

    ITME 204 - GEOTEXTILE FABRIC, TYPE D

- A. 10″ ASPHALT (UNLESS OTHERWISE SHOWN)
- B. 4″ AGGREGATE BASE (UNLESS OTHERWISE SHOWN)
- C. GUARDRAIL

TYPICAL SECTIONS - EXISTING ROAD

HEN-NEW MAUMEE RIVER BRIDGE

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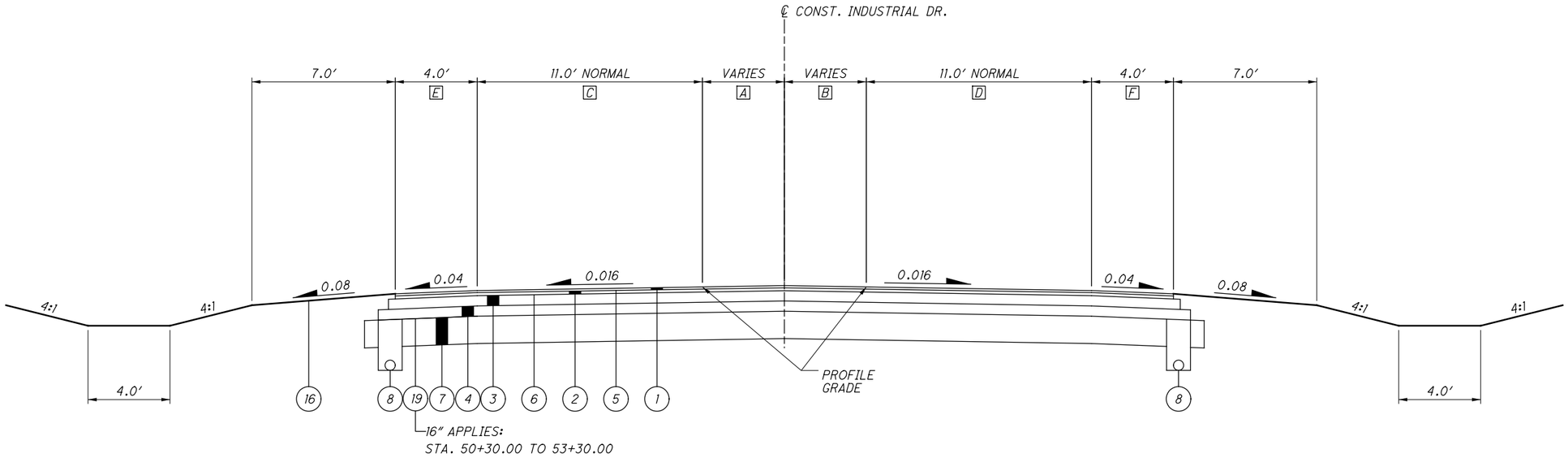


NORMAL SECTION - INDUSTRIAL DR.

APPLIES:
STA. 33+63.77 TO STA. 39+06.32
STA. 49+08.32 TO STA. 49+27.64
STA. 52+14.97 TO STA. 53+53.69

A VARIES: 4.4′ TO 0.0′ STA. 33+63.77 TO STA. 35+06.02
0.0′ FROM STA. 35+06.02 TO STA. 39+06.32
VARIES: 2.3′ TO 8.1′ STA. 49+08.32 TO STA. 49+27.64
0.0′ FROM STA. 52+14.97 TO STA. 53+53.69

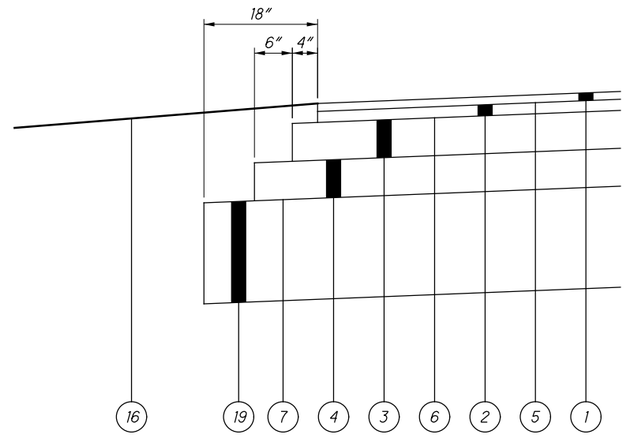
B VARIES: 5.0′ TO 0.0′ STA. 33+63.77 TO STA. 35+06.02
0.0′ FROM STA. 35+06.02 TO STA. 39+06.32
VARIES: 1.7′ TO 0.0′ STA. 49+08.32 TO STA. 49+27.64
VARIES: 8.9′ TO 0.0′ STA. 52+14.97 TO STA. 53+53.69

C 12.0′ FROM STA. 33+63.77 TO STA. 34+78.88
VARIES: 12.0′ AT STA. 34+78.88 TO 11.0′ AT STA. 35+06.02
VARIES: 12.2′ AT STA. 49+08.32 TO 13.1′ STA. 49+27.64
VARIES: 12.0′ FROM STA. 52+14.97 TO STA. 53+53.69

D VARIES: 17.4′ AT STA. 52+14.97 TO 12.0′ AT STA. 53+53.69
VARIES: 11.0′ AT STA. 35+06.05 TO 15.7′ AT STA. 36+78.50
VARIES: 15.7′ AT STA. 36+78.50 TO 11.0′ AT STA. 38+16.09

E CURB AND GUTTER APPLIES FROM STA. 49+08.32 TO 49+27.64
VARIES: 4.0′ AT STA. 53+23.59 TO 0.0′ AT STA. 53+42.92

F CURB AND GUTTER APPLIES FROM STA. 49+08.32 TO 49+27.64
VARIES: 4.0′ AT STA. 52+25.48 TO 0.0′ AT STA. 53+64.45



SHOULDER DETAIL

TYPICAL SECTIONS - INDUSTRIAL DR.

HEN-NEW MAUMEE RIVER BRIDGE

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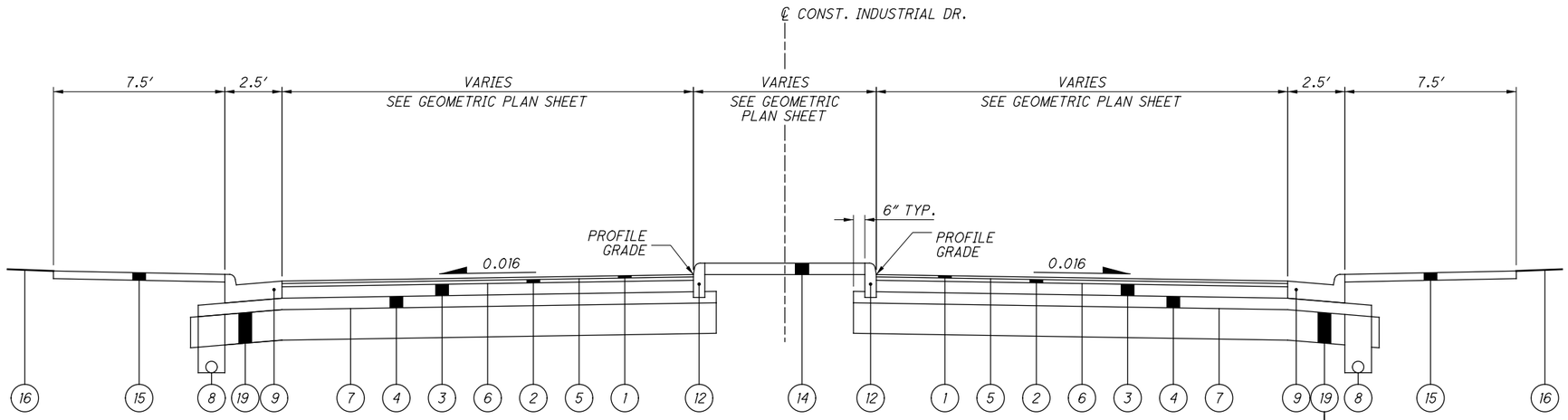


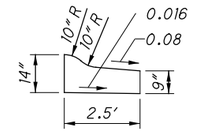
16″ APPLIES INDUSTRIAL DR. :
STA. 50+30.00 TO 53+30.00
12″ APPLIES RIVERVIEW AVE. :
STA. 592+96 TO STA. 596+06
15″ APPLIES S.R. 110 :
STA. 102+05 TO 108+38

NORMAL SECTION - SPLITTER ISLANDS

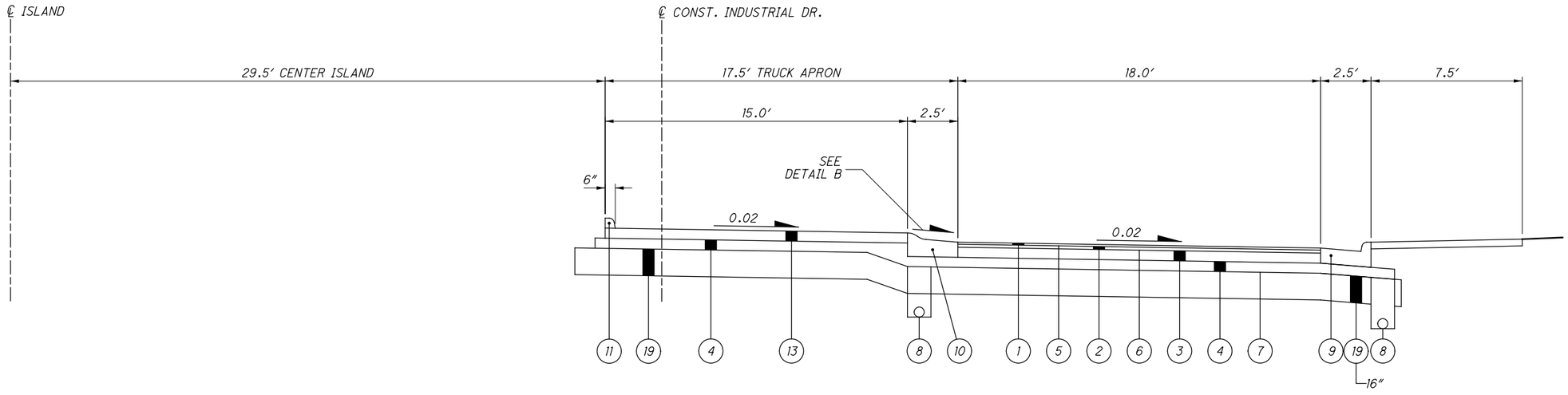
APPLIES ON INDUSTRIAL DR.:
STA. 32+64.11 TO STA. 33+63.77
STA. 49+27.64 TO STA. 49+79.62
STA. 51+12.67 TO STA. 52+14.97

APPLIES ON RIVERVIEW AVE.:
STA. 591+11.11 TO STA. 593+11.11
STA. 594+43.70 TO STA. 596+42.56

APPLIES ON S.R. 110:
STA. 103+78.89 TO STA. 105+78.67
STA. 107+12.59 TO STA. 110+94.51



DETAIL B
COMBINATION CURB AND GUTTER,
TYPE 3, AS PER PLAN



NORMAL SECTION - ROUNDABOUT

FOR LEGEND, SEE SHEET **

TYPICAL SECTIONS - INDUSTRIAL DR.

HEN-NEW MAUMEE RIVER BRIDGE

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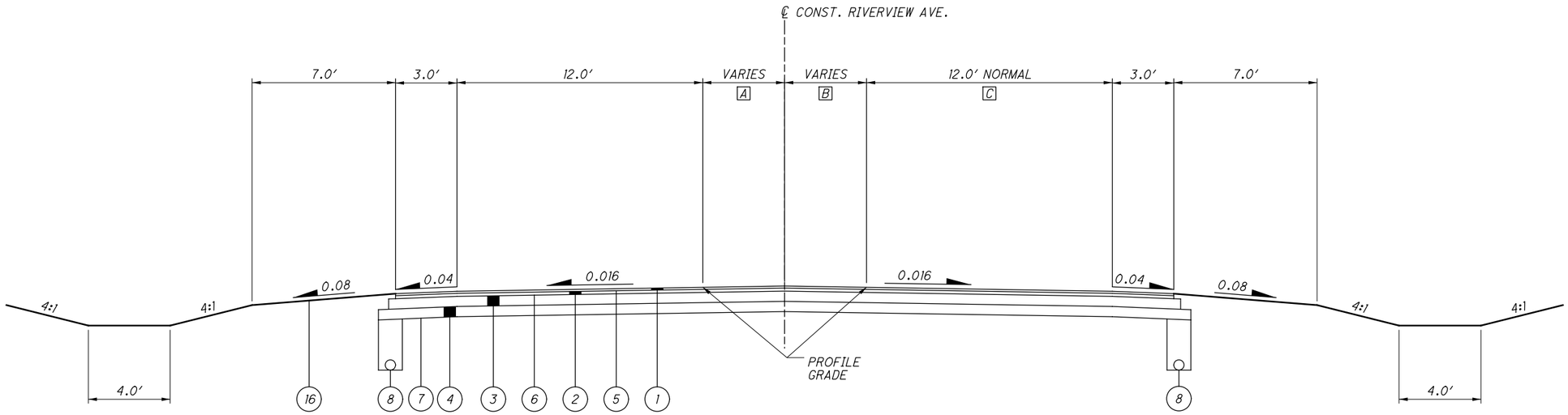
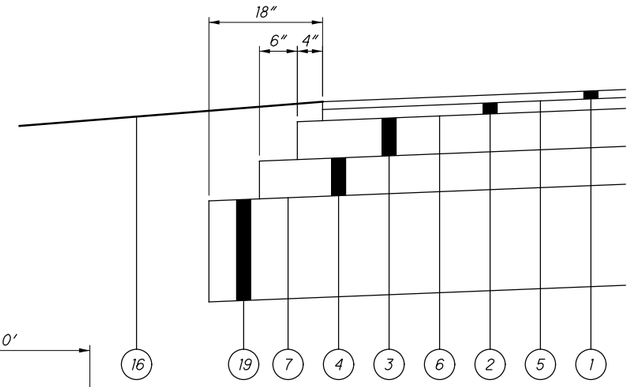


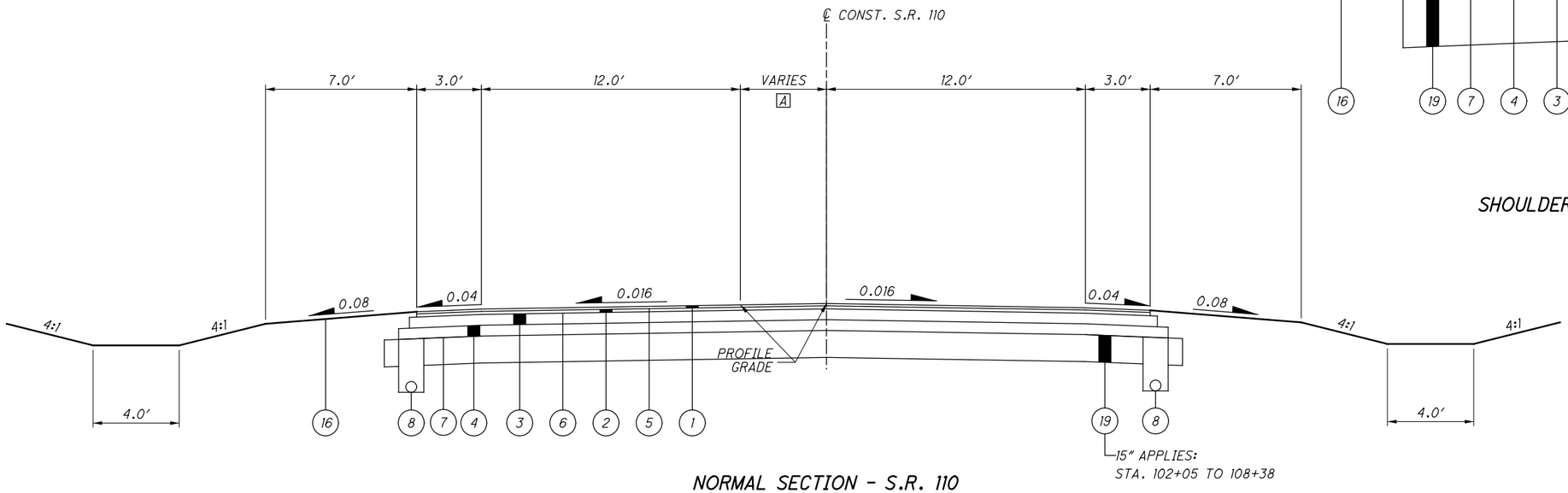
NORMAL SECTION - RIVERVIEW AVE.

APPLIES:
STA. 589+31.35 TO STA. 591+11.11
STA. 596+42.56 TO STA. 598+61.61

A VARIES: 0.0′ TO 2.9′ STA. 589+31.35 TO STA. 591+11.11
VARIES: 7.3′ TO 0.0′ STA. 596+42.56 TO STA. 598+61.61
B VARIES: 0.0′ TO 5.0′ STA. 589+31.35 TO STA. 591+11.11
VARIES: 4.0′ TO 0.0′ STA. 596+42.56 TO STA. 598+61.61
B VARIES: 12.3′ AT 596+42.56 TO 12.0′ AT STA. 596+63.21



SHOULDER DETAIL



NORMAL SECTION - S.R. 110

APPLIES:
STA. 101+50.00 TO STA. 103+78.89
STA. 110+94.51 TO STA. 113+44.83

A VARIES: 0.0′ TO 8.0′ STA. 101+50.00 TO STA. 103+78.89
VARIES: 7.9′ TO 0.0′ STA. 110+94.51 TO STA. 113+44.83

FOR LEGEND, SEE SHEET **

TYPICAL SECTIONS - RIVERVIEW AVE. & S.R. 110

HEN-NEW MAUMEE RIVER BRIDGE

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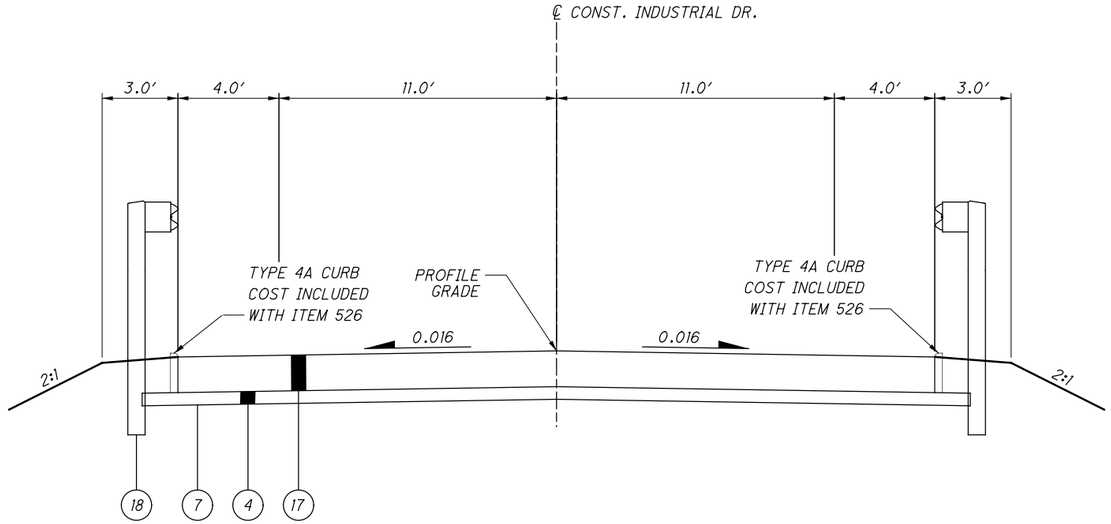
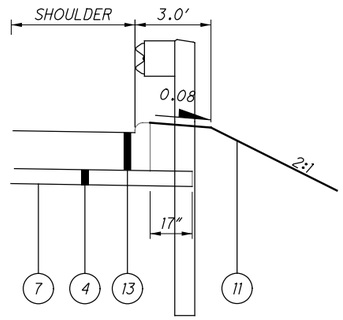


NORMAL SECTION - APPROACH SLAB

APPLIES:
STA. 39+06.32 TO STA. 39+31.32



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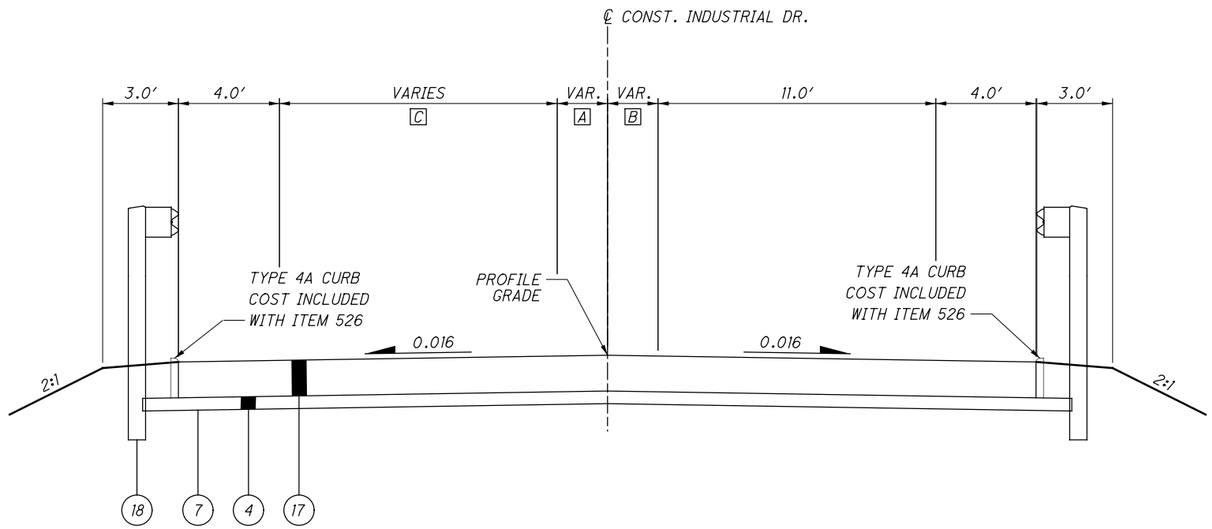

NORMAL SECTION - APPROACH SLAB

APPLIES:
STA. 48+76.82 TO STA. 49+08.32

A VARIES: 2.3′ TO 5.0′ STA. 48+76.82 TO STA. 49+08.32
B VARIES: 2.1′ TO 1.7′ STA. 48+76.82 TO STA. 49+08.32
C VARIES: 11.0′ TO 12.1′ STA. 48+76.82 TO STA. 49+08.32

TYPICAL SECTIONS - APPROACH SLAB

HEN-NEW MAUMEE
RIVER BRIDGE

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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

UTILITY OWNERSHIP

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

TIME WARNER CABLE

CITY OF NAPOLEON
255 WEST RIVERVIEW
NAPOLEON, OH 43545
(419) 592-4010

OHIO GAS
335 E. LEGGETT STREET
WASEON, OH 43567
(419) 825-5368

TOLEDO EDISON
300 MADISON AVENUE
TOLEDO, OH 43652
(419)249-5218

CENTURY LINK
812 DOLAN ST.
DEFIANCE, OH 43512

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET ___ OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: CORS STATIONS

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: GEOID9

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (CORS96)
ELLIPSOID: GRS 80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE - NORTH ZONE
COMBINED SCALE FACTOR: 1.0000675074
ORIGIN OF COORDINATE
SYSTEM: 0.00, 0.00

SURVEYING PARAMETERS (CONT.)

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 823.

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

CALCULATED | CHECKED

GENERAL NOTES

HEN-NEW MAUMEE RIVER BRIDGE

9
59

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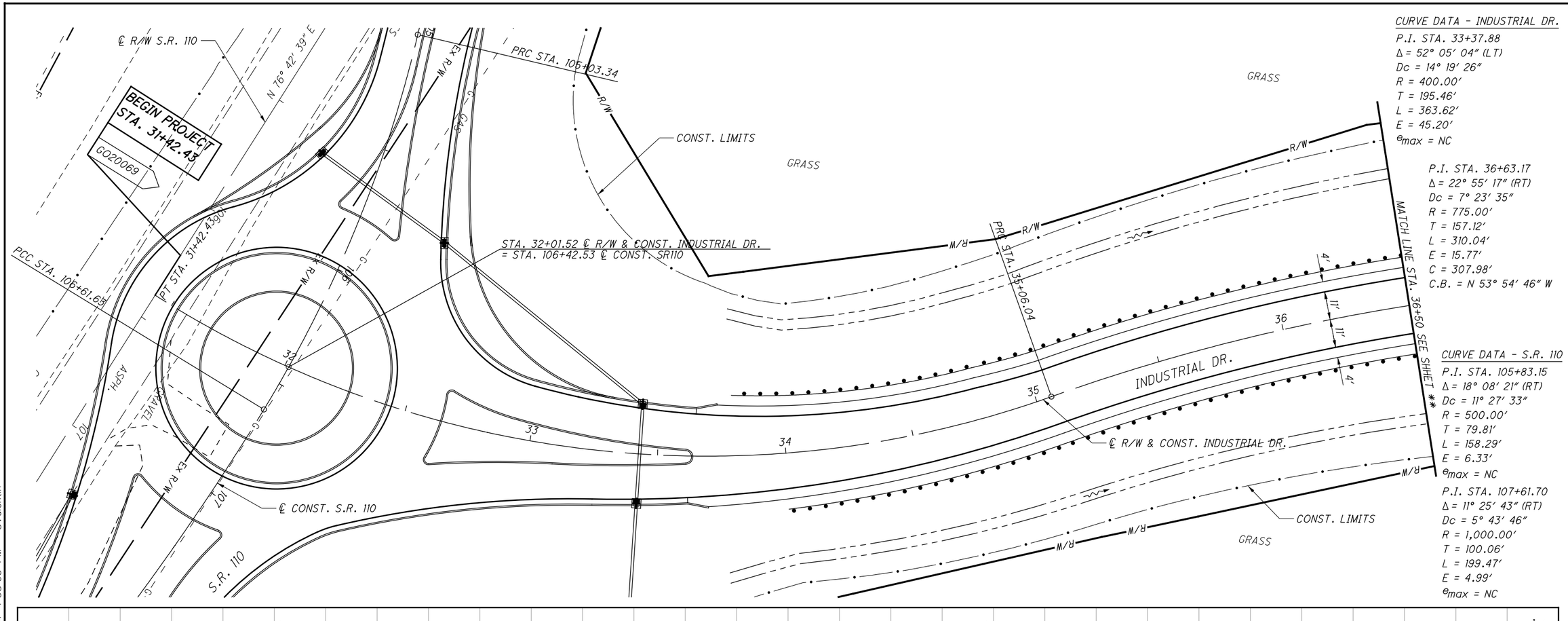

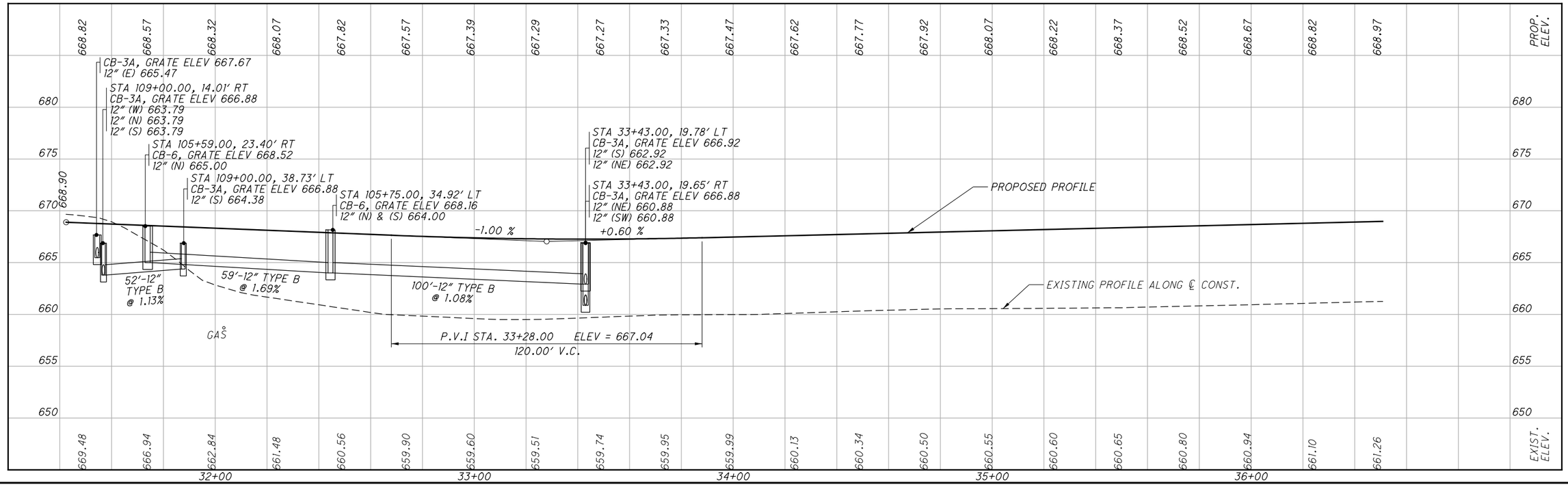

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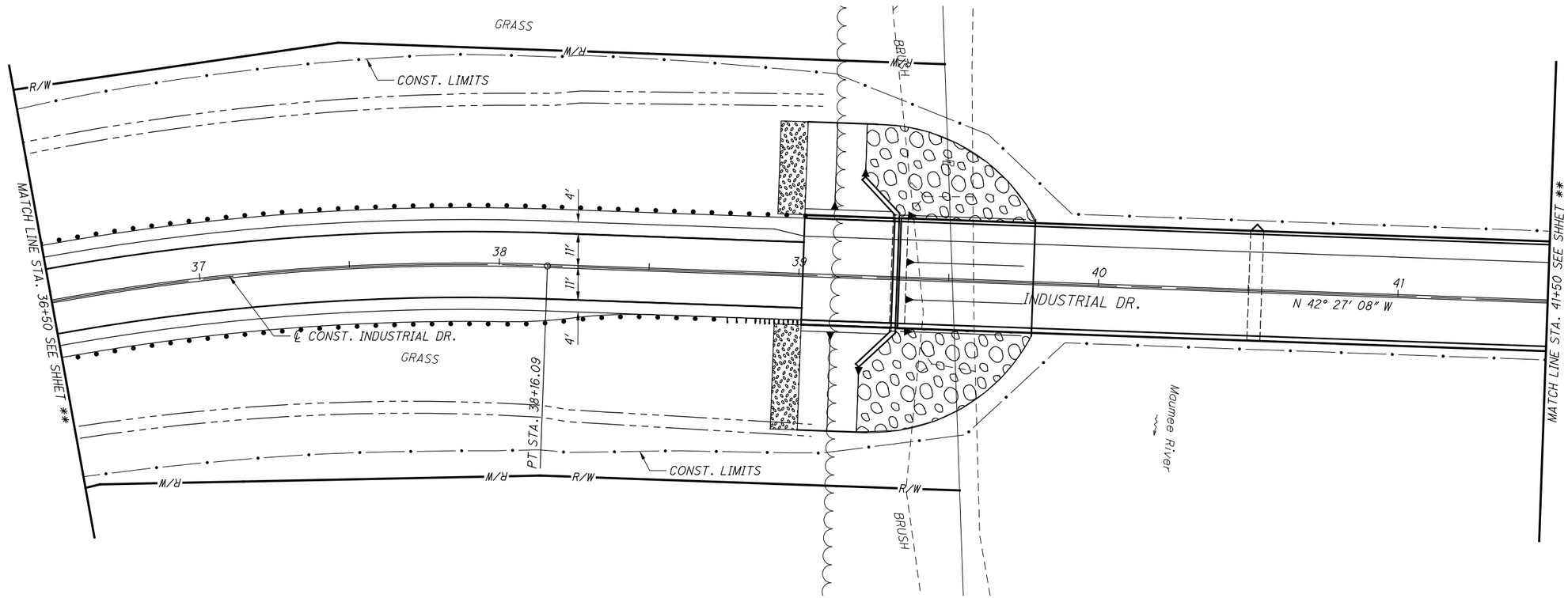
HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED
CHECKED

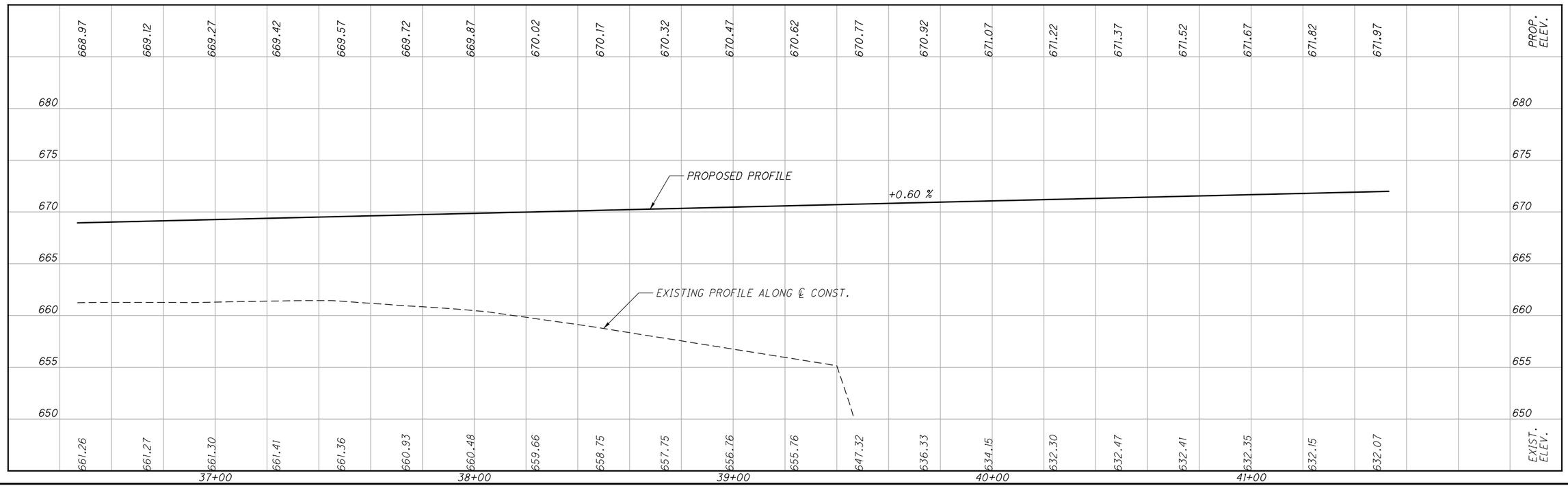
PLAN AND PROFILE - INDUSTRIAL DR, STA. 31+42.43 TO STA. 36+50.00

HEN-NEW MAUMEE RIVER BRIDGE



CURVE DATA - INDUSTRIAL DR.

P.I. STA. 36+63.17
Δ = 22° 55' 17" (RT)
Dc = 7° 23' 35"
R = 775.00'
T = 157.12'
L = 310.04'
E = 15.77'
C = 307.98'
C.B. = N 53° 54' 46" W



HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED
CHECKED

PLAN AND PROFILE - INDUSTRIAL DR. STA. 36+50.00 TO STA. 41+50.00

HEN-NEW MAUMEE RIVER BRIDGE

11
59

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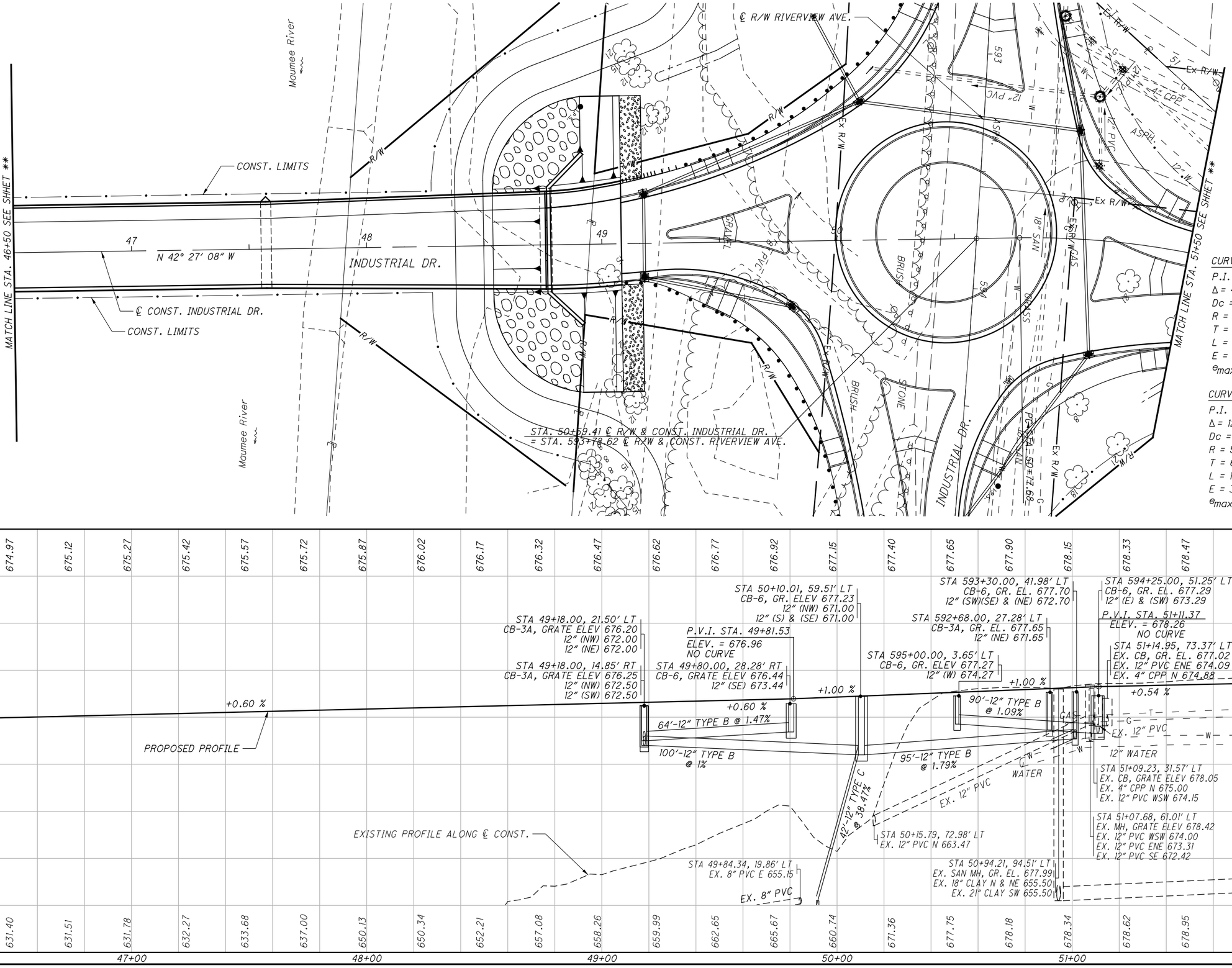

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED | CHECKED

PLAN AND PROFILE - INDUSTRIAL DR.
STA. 46+50.00 TO STA. 51+50.00

HEN-NEW MAUMEE RIVER BRIDGE

12
59

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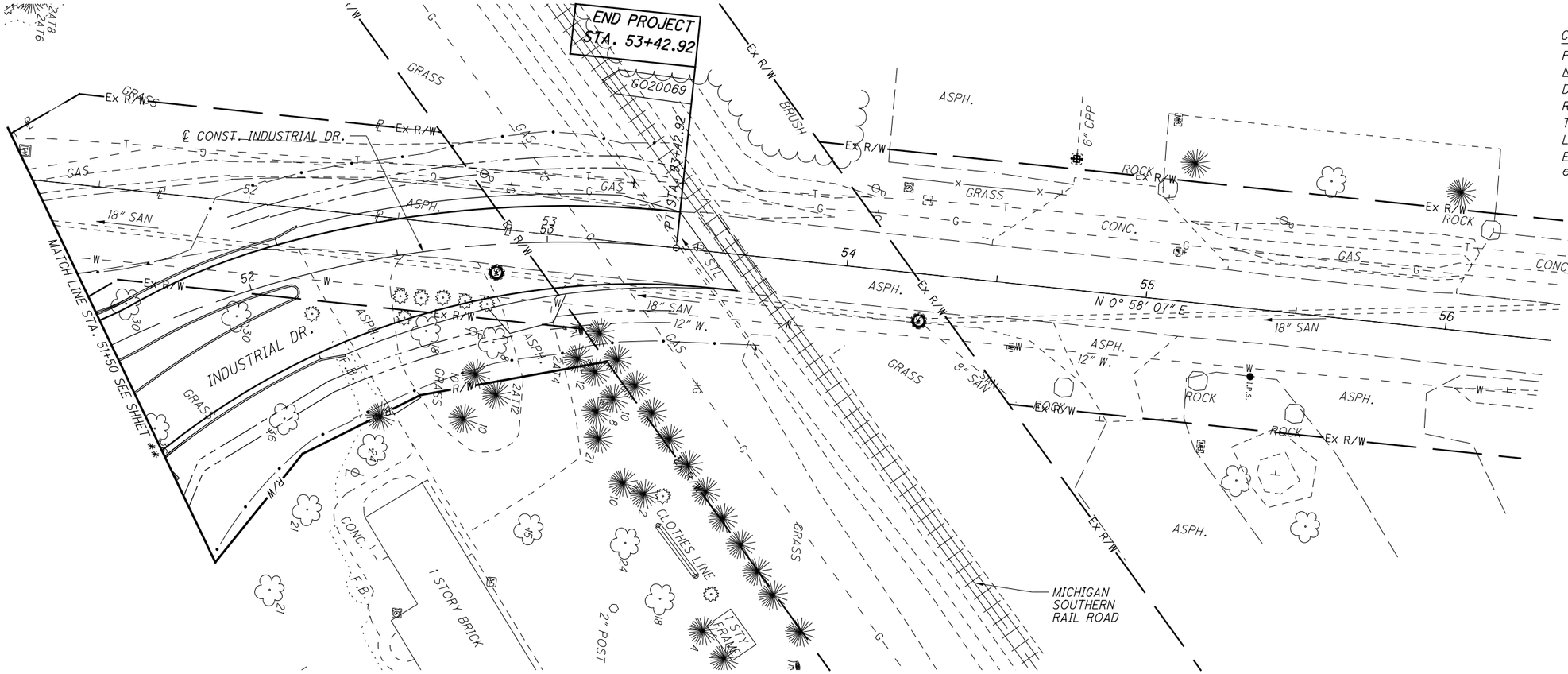
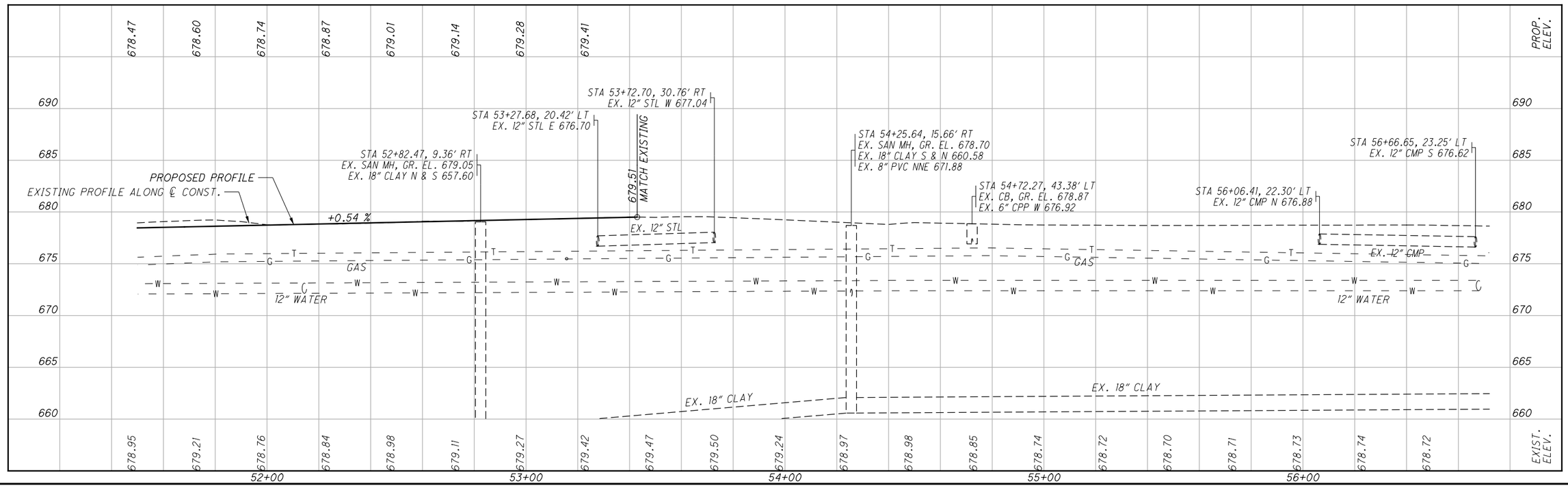


CURVE DATA - INDUSTRIAL DR.

P.I. Sta. 52+17.04
Δ = 43° 25' 15" (RT)
Dc = 16° 22' 13"
R = 350.00'
T = 139.36'
L = 265.24'
E = 26.72'
emax = NC



PLAN AND PROFILE - INDUSTRIAL DR.
STA. 51+50.00 TO STA. 56+50.00

HEN-NEW MAUMEE RIVER BRIDGE

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED
CHECKED

13
59

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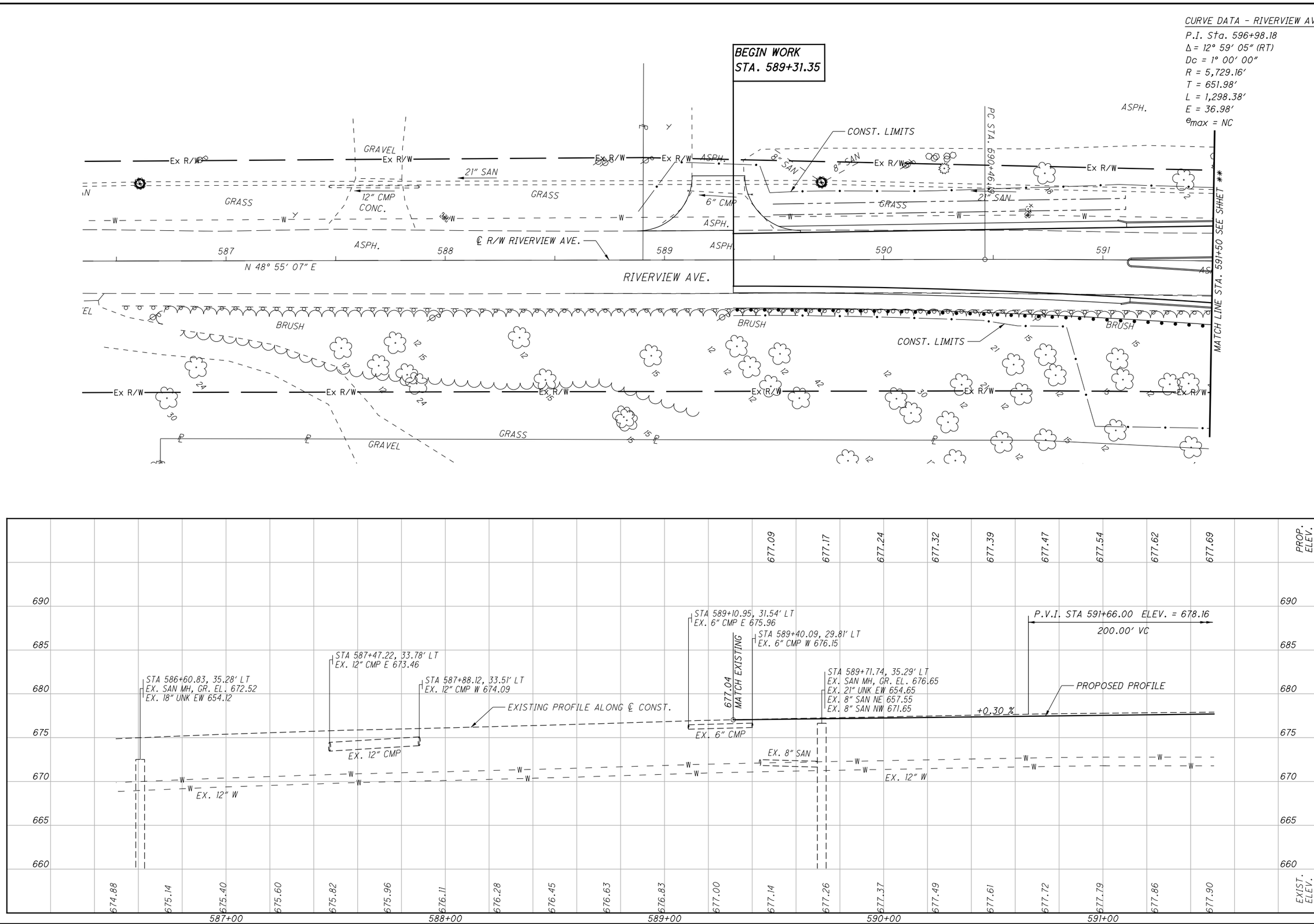

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED
CHECKED

PLAN AND PROFILE - RIVERVIEW AVE.
STA. 586+50.00 TO STA. 591+50.00

HEN-NEW MAUMEE RIVER BRIDGE

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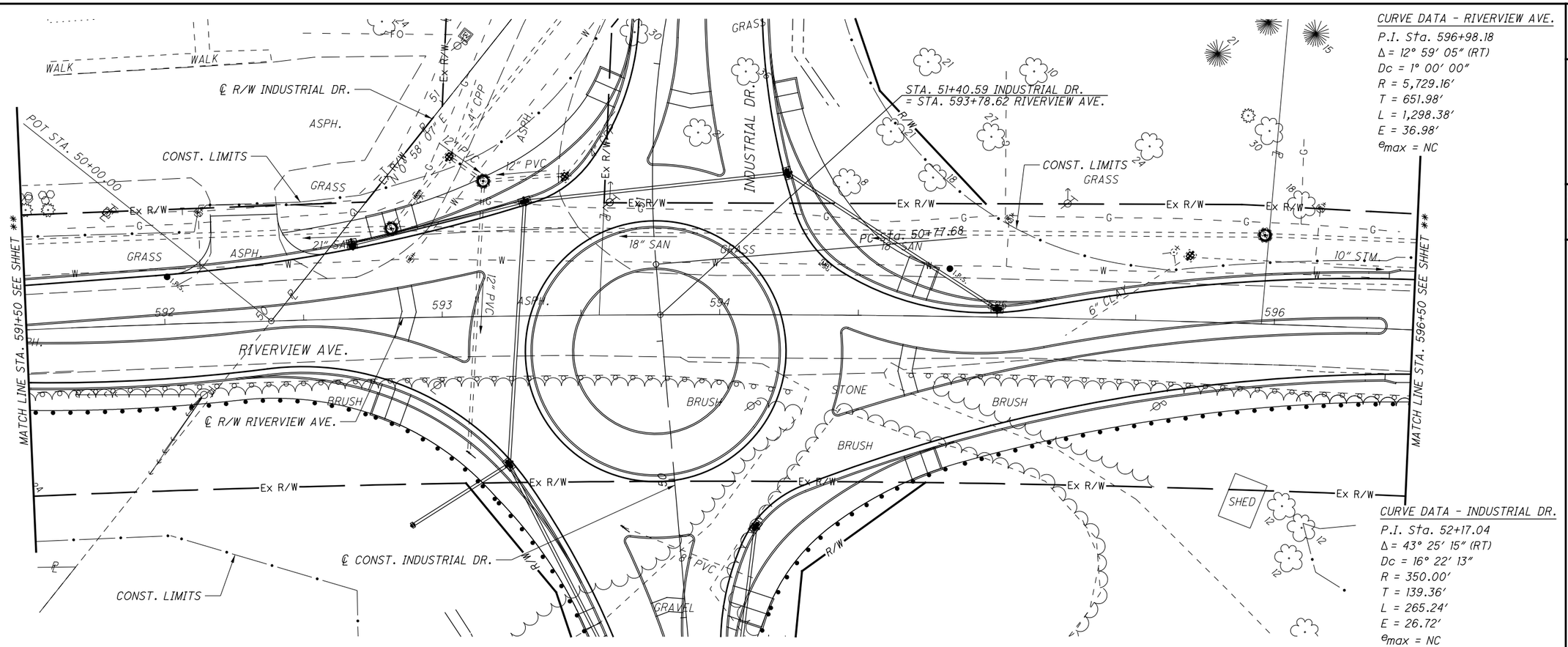

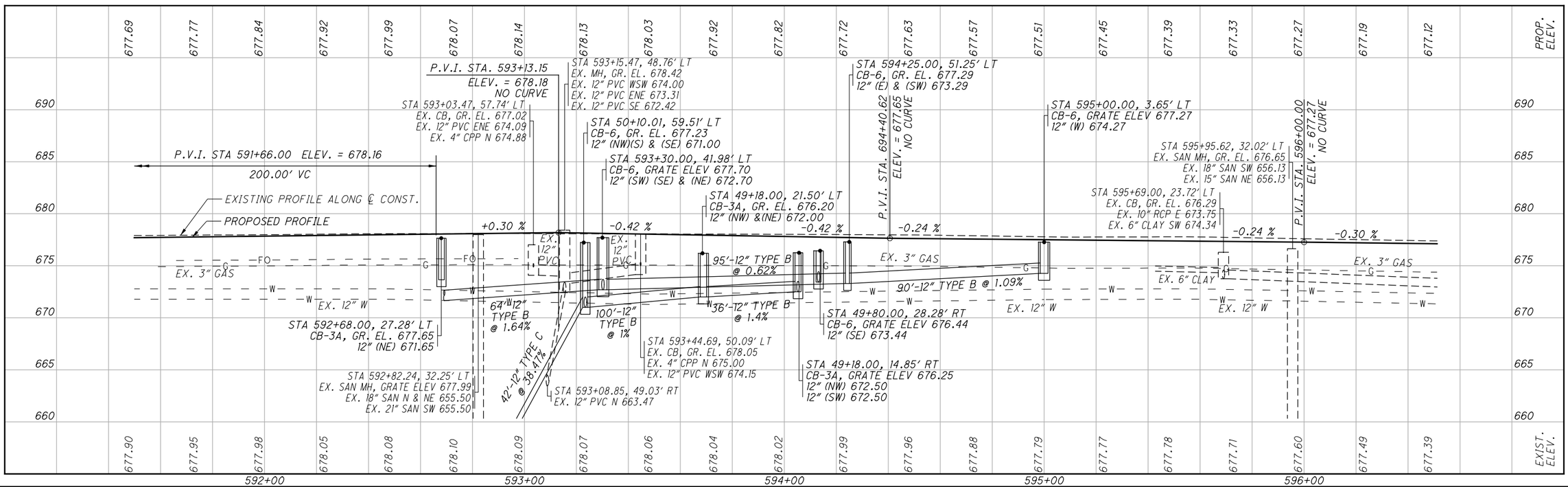

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED
CHECKED

PLAN AND PROFILE - RIVERVIEW AVE. STA. 591+50.00 TO STA. 596+50.00

HEN-NEW MAUMEE RIVER BRIDGE

15
59

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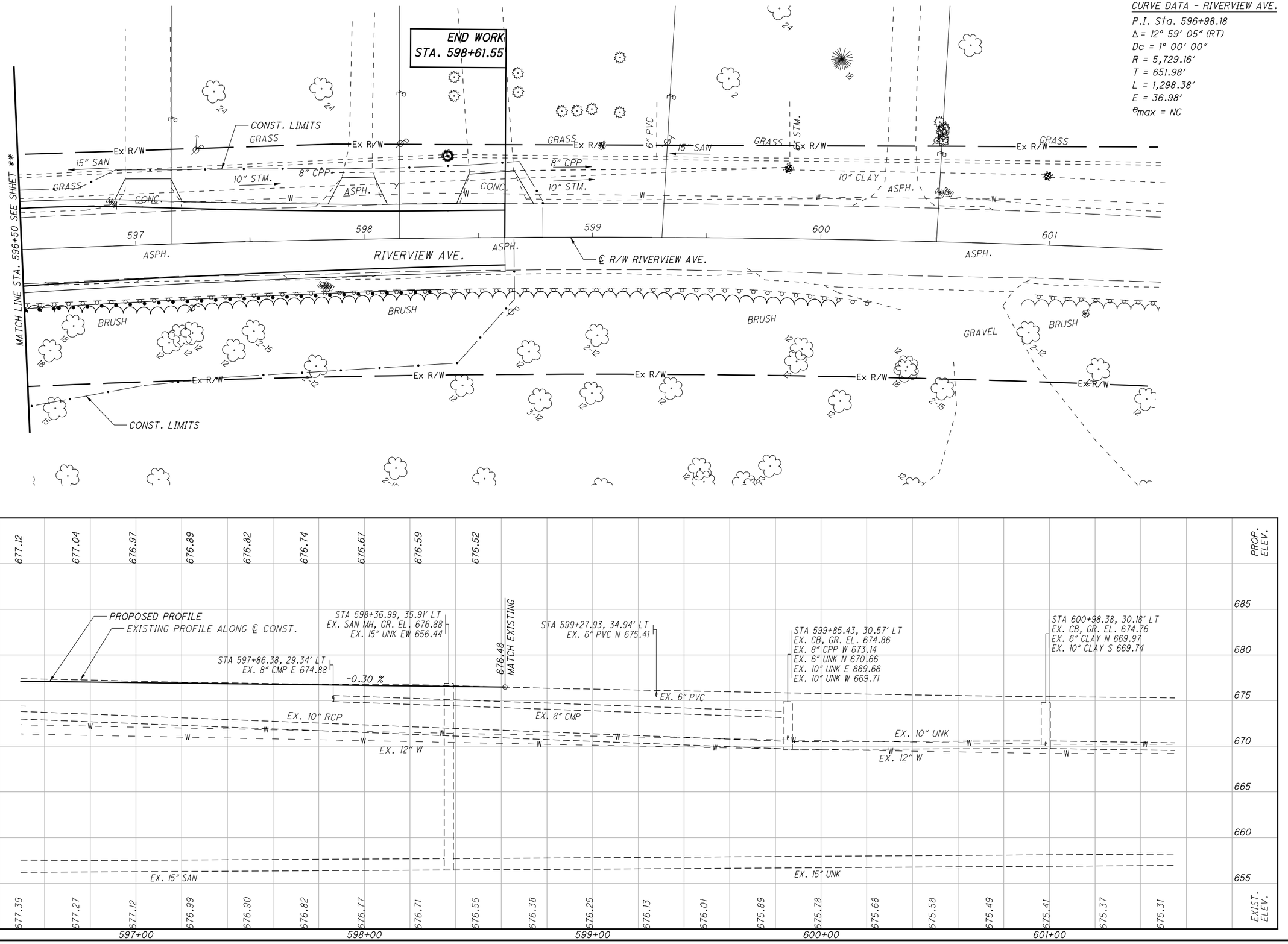

HORIZONTAL SCALE IN FEET

CALCULATED

CHECKED

PLAN AND PROFILE - RIVERVIEW AVE.
STA. 596+50 TO STA. 601+50.00

HEN-NEW MAUMEE RIVER BRIDGE

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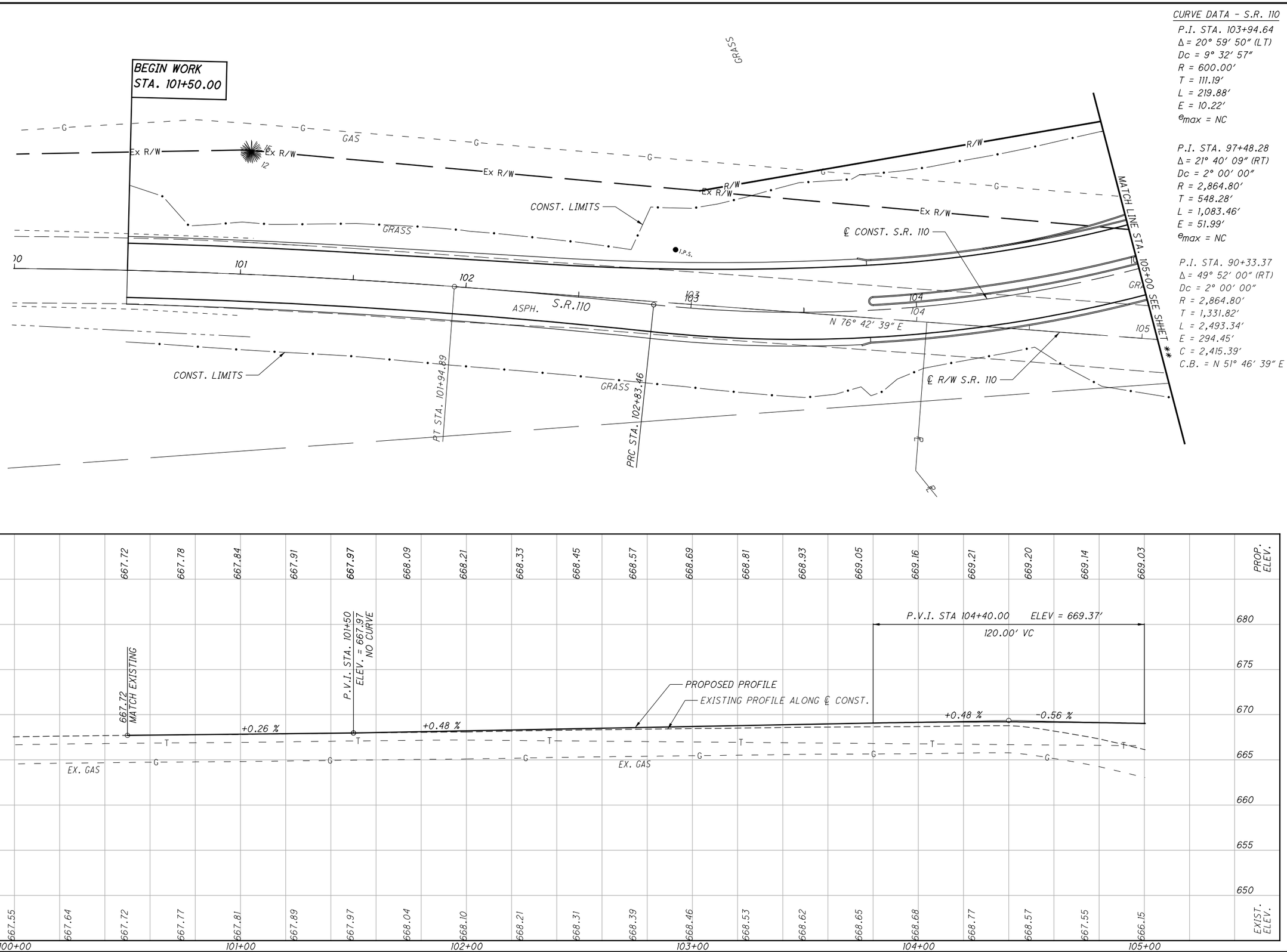

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED | CHECKED

PLAN AND PROFILE - S.R.110
STA. 100+00.00 TO STA. 105+00.00

HEN-NEW MAUMEE RIVER BRIDGE

17
59

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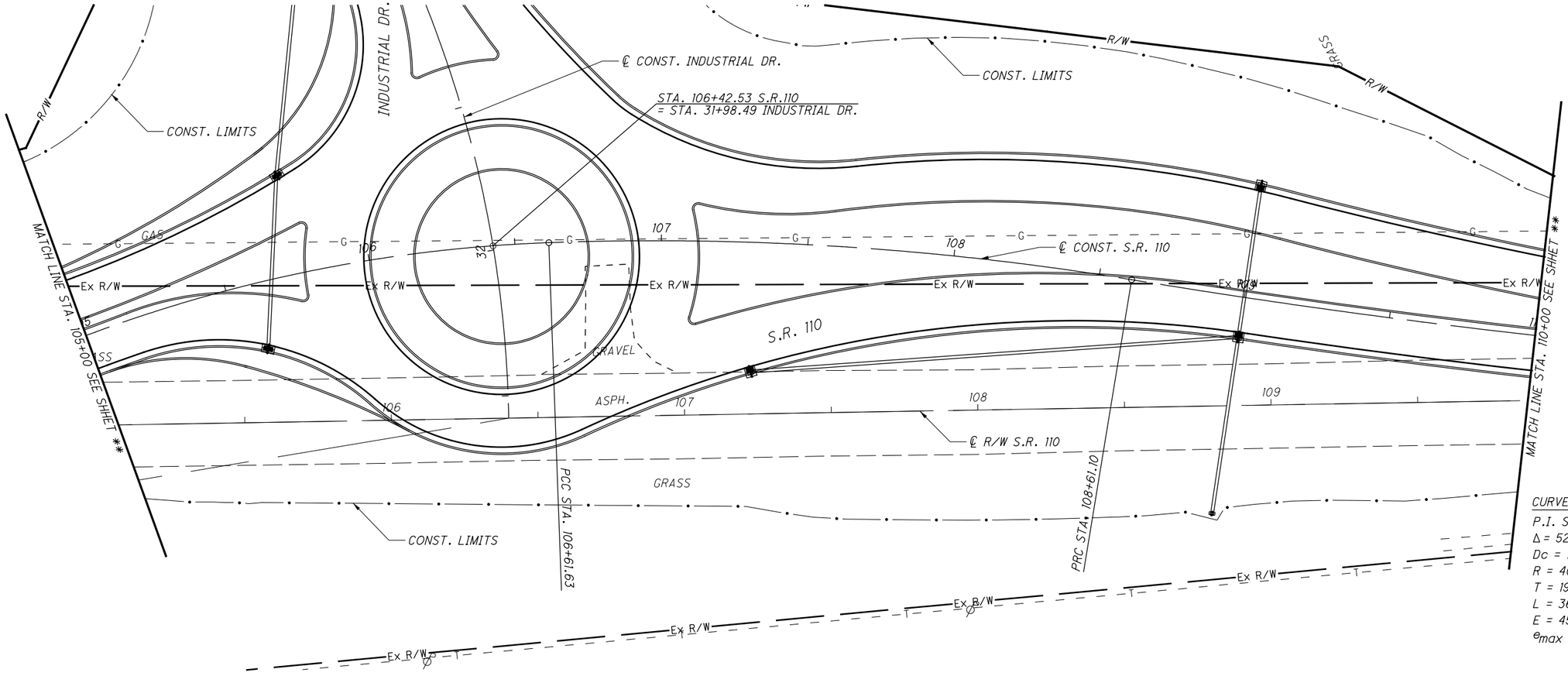

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED | CHECKED

PLAN AND PROFILE - S.R.110
STA. 105+00.00 TO STA. 110+00.00

HEN-NEW MAUMEE RIVER BRIDGE

18
59

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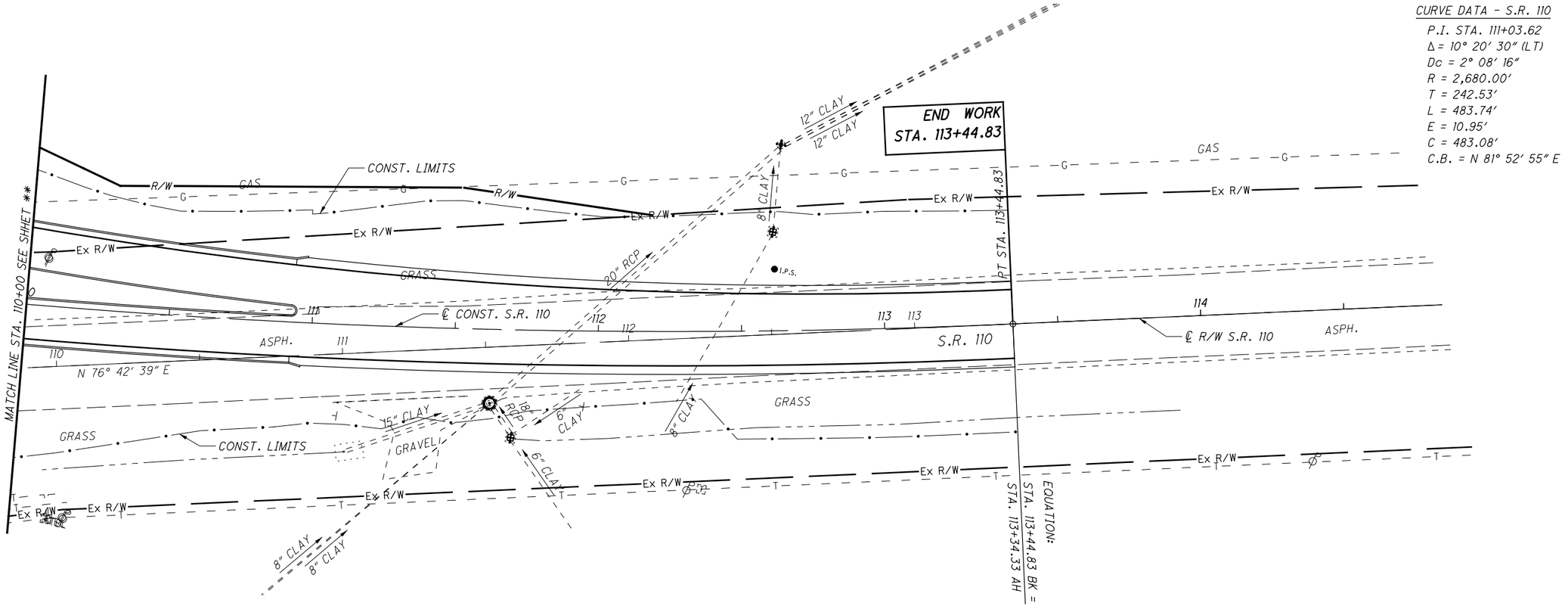
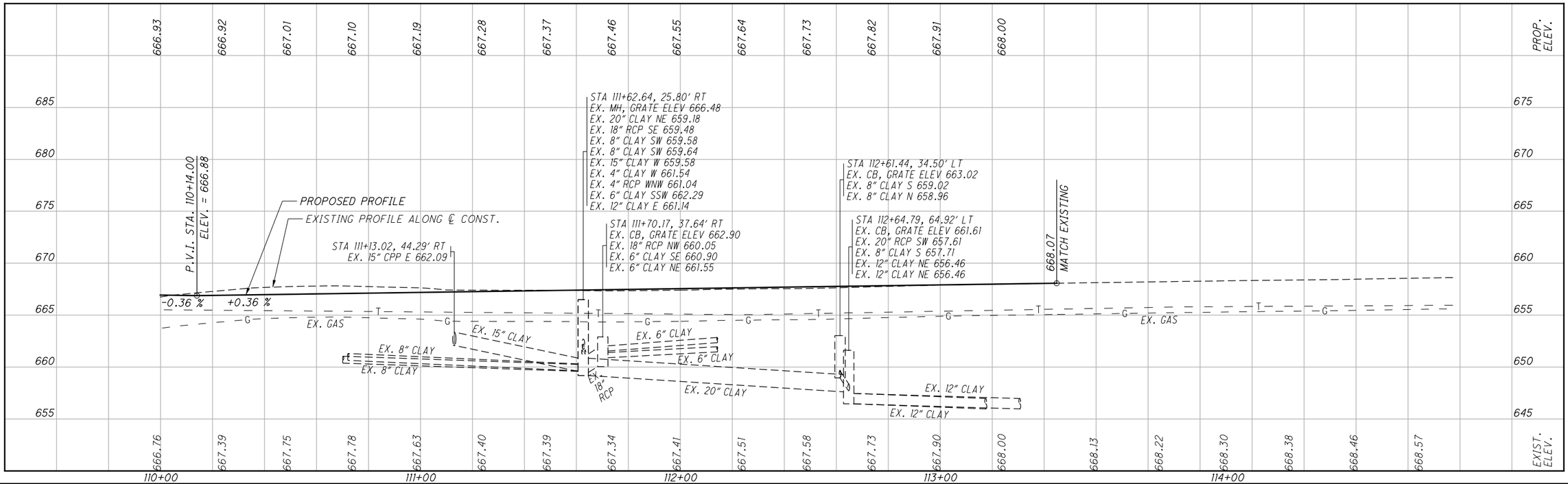


CURVE DATA - S.R. 110

P.I. STA. 111+03.62
Δ = 10° 20′ 30″ (LT)
Dc = 2° 08′ 16″
R = 2,680.00′
T = 242.53′
L = 483.74′
E = 10.95′
C = 483.08′
C.B. = N 81° 52′ 55″ E

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED | CHECKED



PLAN AND PROFILE - S.R.110
STA. 110+00.00 TO STA. 115+00.00

HEN-NEW MAUMEE RIVER BRIDGE

19
59

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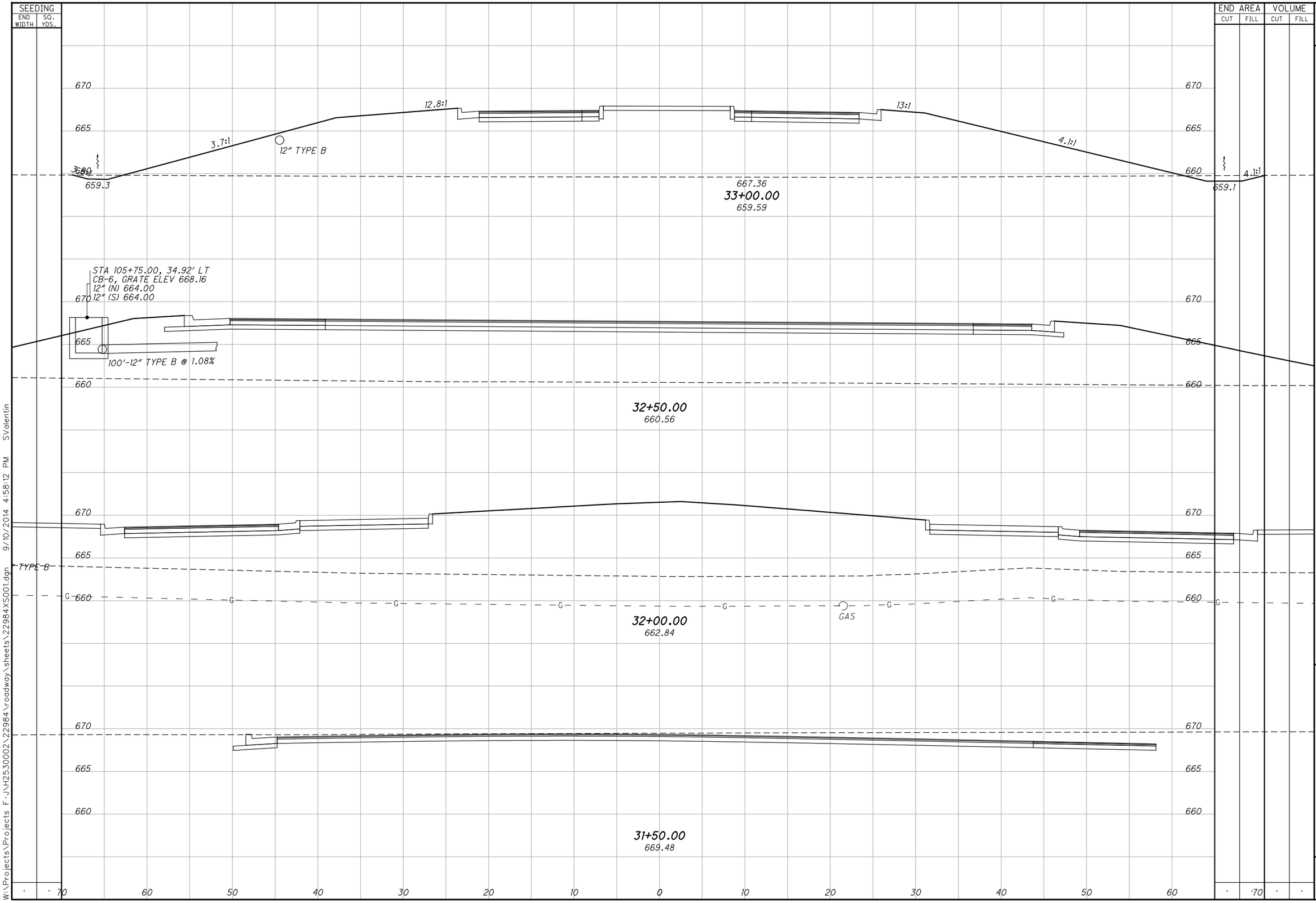
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



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CROSS SECTIONS INDUSTRIAL DR. STA. 31+50.00 TO STA. 33+00.00

HEN-NEW MAUMEE RIVER BRIDGE

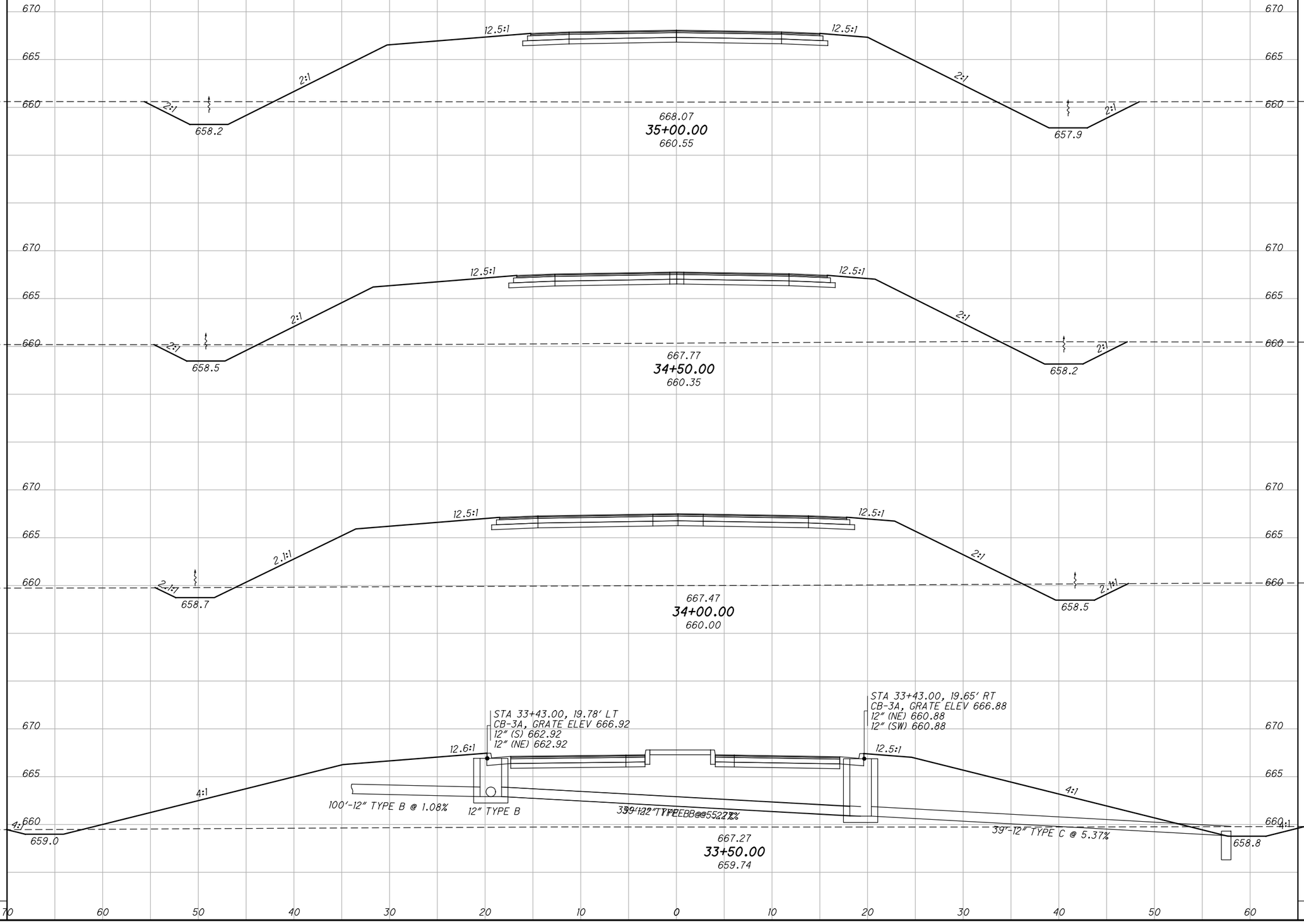
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS INDUSTRIAL DR. STA. 33+50.00 TO STA. 35+00.00

HEN-NEW MAUMEE RIVER BRIDGE

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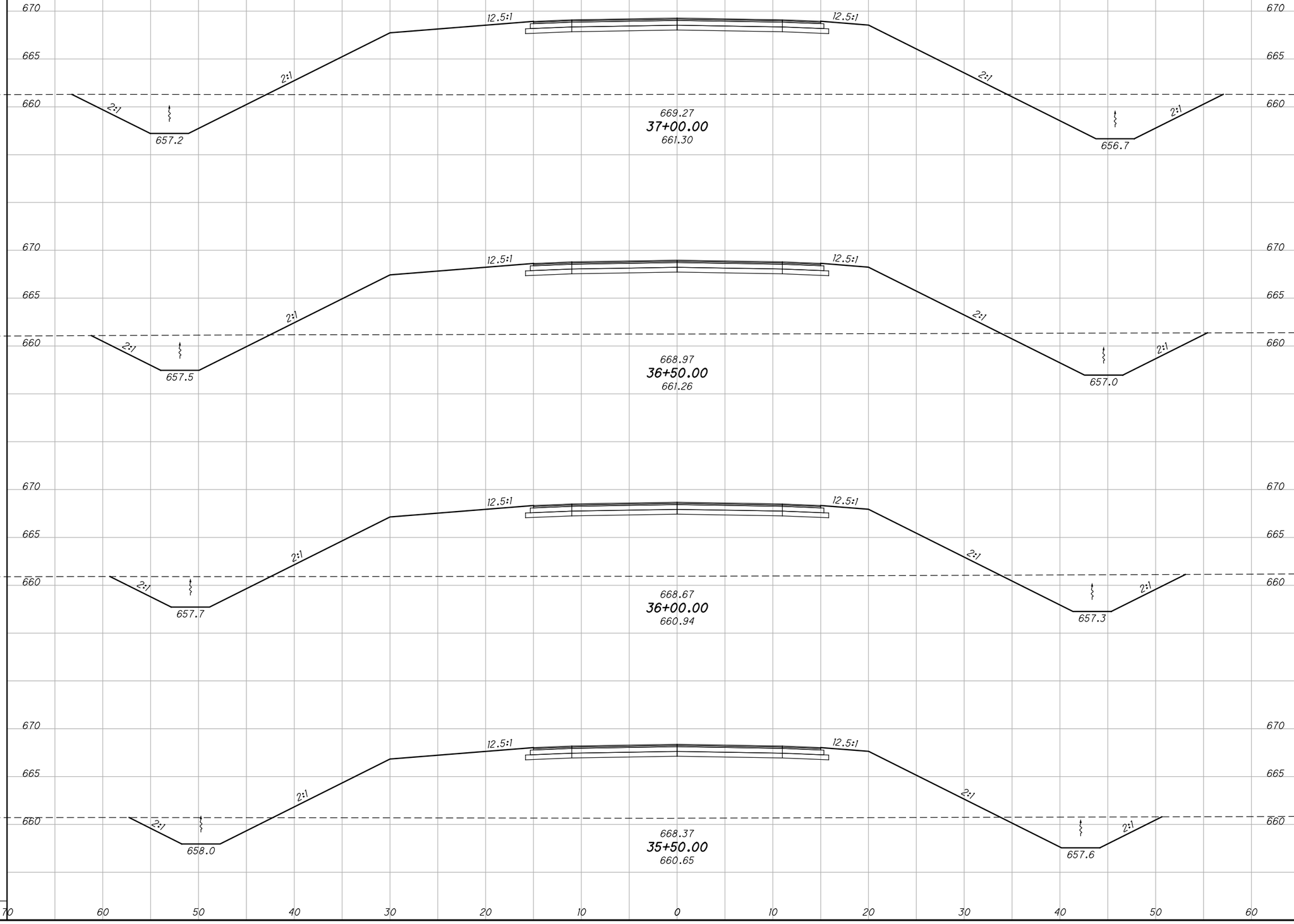
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS INDUSTRIAL DR.
STA. 35+50.00 TO STA. 37+00.00

HEN-NEW MAUMEE RIVER BRIDGE

22
59

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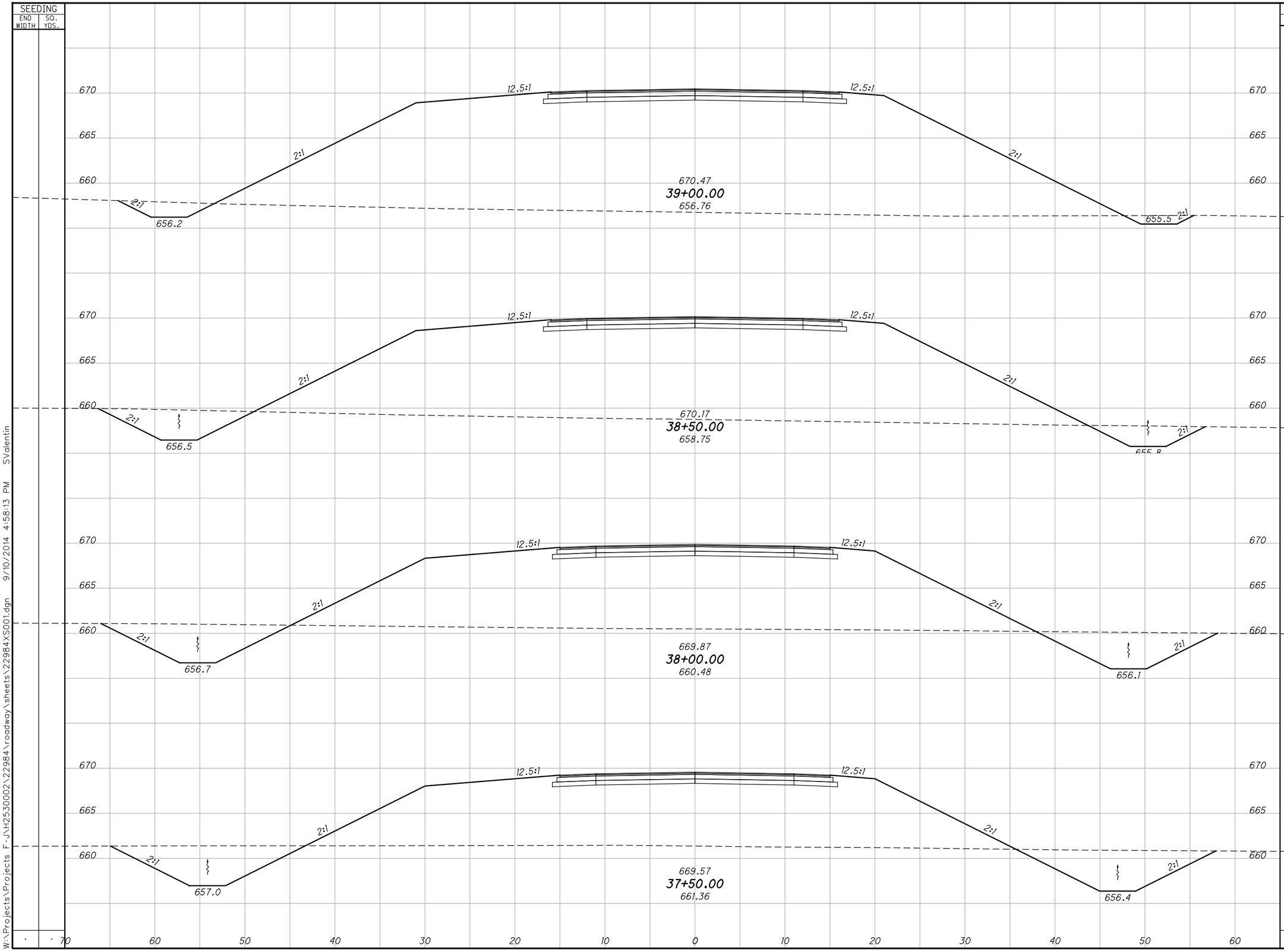
SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

CROSS SECTIONS INDUSTRIAL DR. STA. 37+50.00 TO STA. 39+00.00

HEN-NEW MAUMEE RIVER BRIDGE

23
59

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SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED

680
675
670
665

12" TYPE B

12" WL.

50+75.00
678.18

12" PVC
670

12" TYPE B

50+50.00
677.75

42'-12" TYPE C
38.47%

100'-12" TYPE B @ 1%

STA 50+10.01, 59.51' LT
CB-6, GRATE ELEV 677.23
12" (NW) 671.00
12" (S) 671.00
12" (SE) 671.00

STA 50+15.79, 72.98' LT
EX. PIO, GRATE ELEV 663.47'
12" PVC N 663.47

STA 49+84.34, 19.86' LT
EX. PIO, GRATE ELEV 655.15'
8" PVC E 655.15

50+00.00
660.74

13.7:1

2.2:1

100'-12"
TYPE B
@ 1%

STA 49+18.00, 21.50' LT
CB-3A, GRATE ELEV 676.20
12" (NW) 672.00
12" (NE) 672.00

36'-12" TYPE B @ 1.4%

13:1

64'-12" TYPE B
@ 1.47%

STA 49+18.00, 14.85' RT
CB-3A, GRATE ELEV 676.25
12" (NW) 672.50
12" (SW) 672.50

STA 49+80.00, 28.28' RT
CB-6, GRATE ELEV 676.44
12" (SE) 673.44

2.1:1

676.71
49+50.00
662.66

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

CROSS SECTIONS INDUSTRIAL DR. STA. 49+50.00 TO STA. 50+75.00

HEN-NEW MAUMEE RIVER BRIDGE

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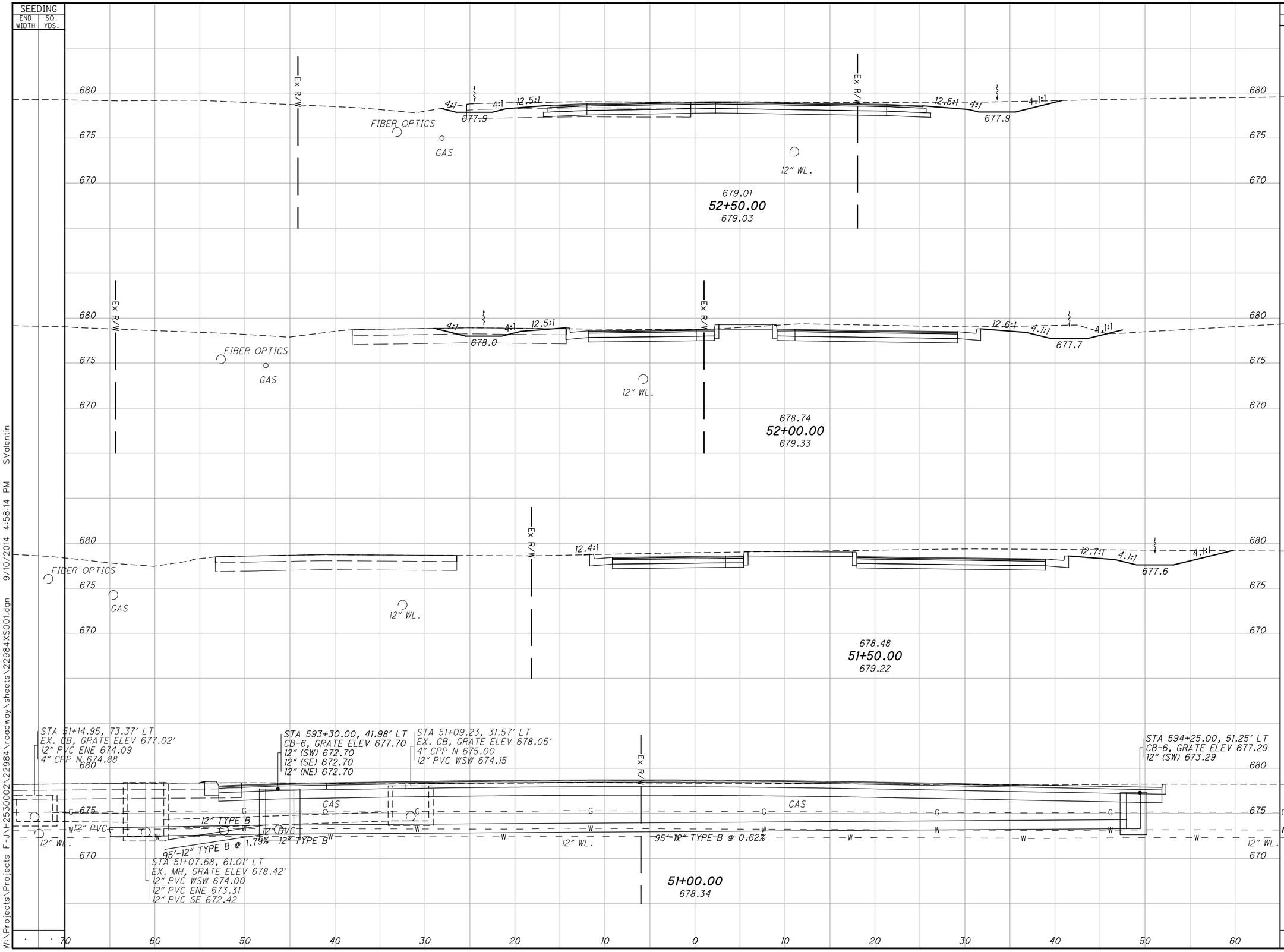
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS INDUSTRIAL DR. STA. 51+00.00 TO STA. 52+50.00

HEN-NEW MAUMEE RIVER BRIDGE

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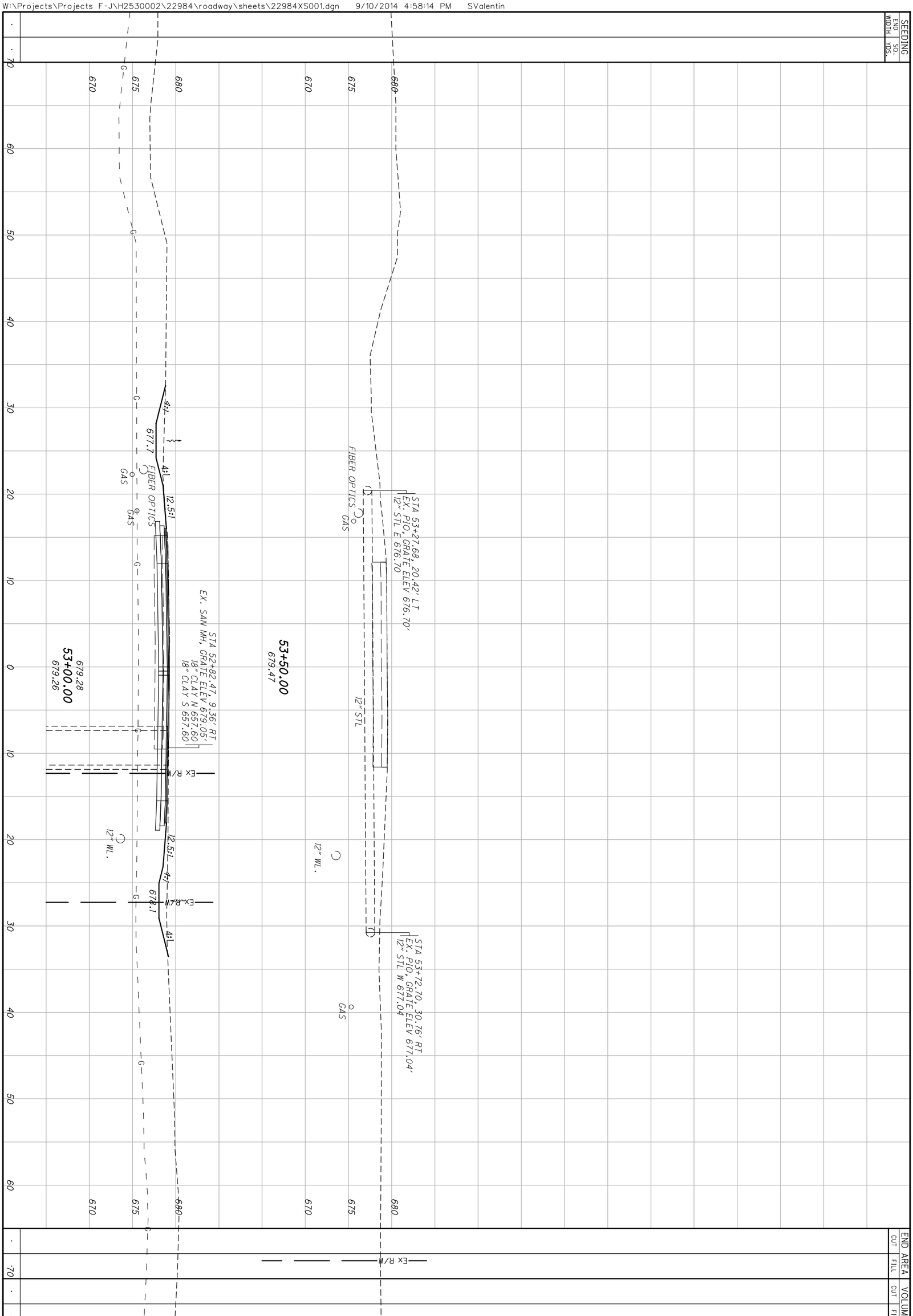

26/59	HEN-NEW MAUMEE RIVER BRIDGE	CROSS SECTIONS INDUSTRIAL DR. STA. 53+00.00 TO STA. 53+50.00	CALCULATED / CHECKED

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

680
675
670
665
660

Ex R/W

4:1 4:1 12.5:1 12.5:1 2:1

676.6

12" WL.

677.39
590+50.00
677.55

21" SAN

676.5

677.24
590+00.00
677.36

STA 589+71.74, 35.29' LT
EX. SAN MH, GRATE ELEV 676.65'
21" UNK EW 654.65
8" CLAY NE 657.55
8" CLAY NW 671.65

676.3

STA 589+40.09, 29.81' LT
EX. PIO, GRATE ELEV 676.15'
6" CMP W 676.15

677.09
589+50.00
677.14

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

CROSS SECTIONS RIVERVIEW AVE.
STA. 589+50.00 TO STA. 590+50.00

HEN-NEW MAUMEE RIVER BRIDGE

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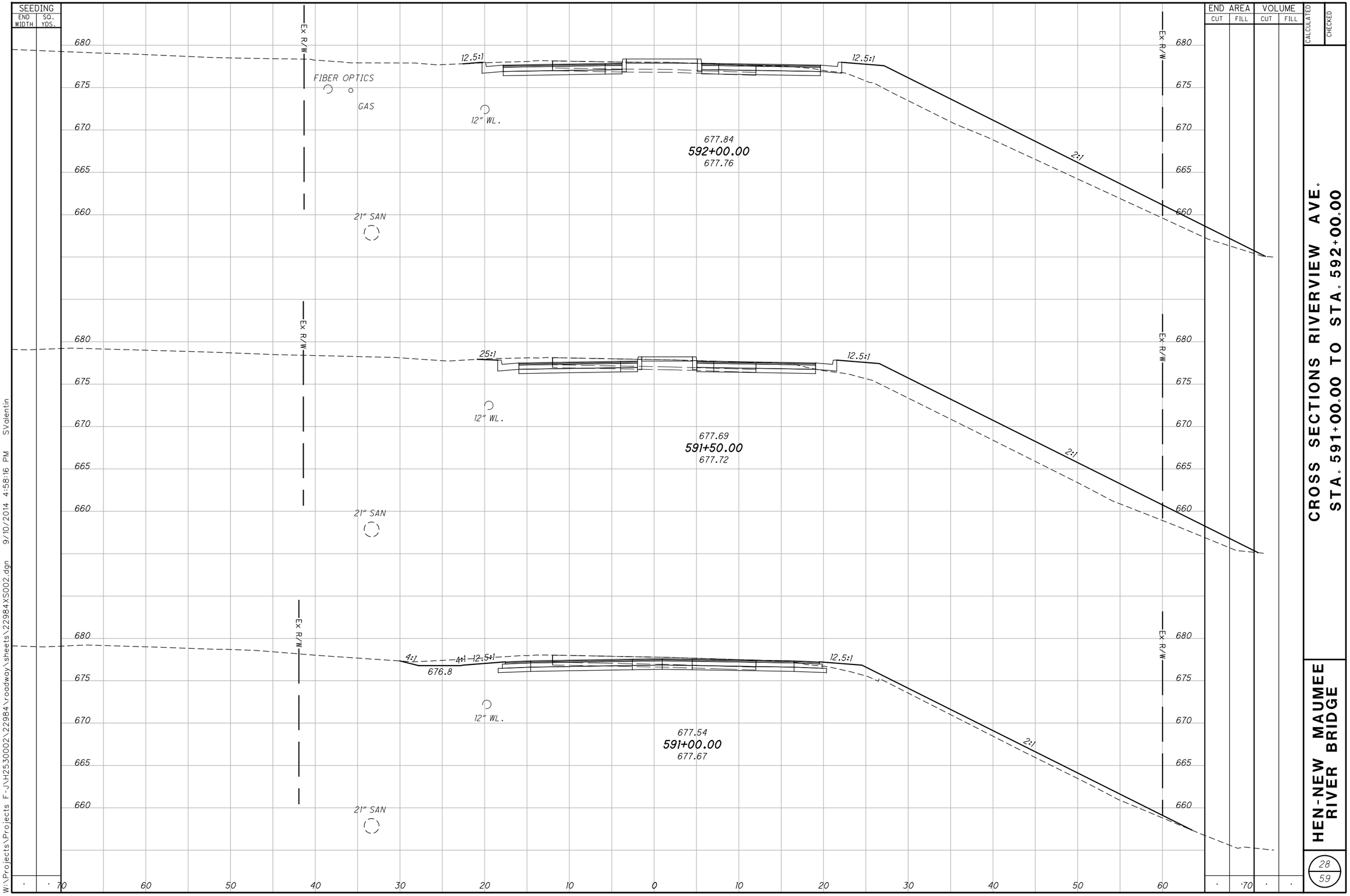
SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



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CROSS SECTIONS RIVERVIEW AVE.
STA. 591+00.00 TO STA. 592+00.00

HEN-NEW MAUMEE RIVER BRIDGE

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

STA 593+44.69, 50.09' LT
EX. CB, GRATE ELEV 678.05'
4" CPP N 675.00
12" PVC WSW 674.15

4" CPP

GAS

12" TYPE B

12" WL.

593+50.00
678.06

18" SAN

Ex R/W

STA 593+03.47, 57.74' LT
EX. CB, GRATE ELEV 677.02'
12" PVC ENE 674.09
4" CPP N 674.88

4" CPP

GAS

12" PVC

STA 592+82.24, 32.25' LT
EX. SAN MH, GRATE ELEV 677.99'
18" CLAY N 655.50
18" CLAY NE 655.50
21" CLAY SW 655.50

13:1

GAS

12" WL.

12" WL.

12" TYPE B

64'-12" TYPE B @ 1.48%

95'-12" TYPE B @ 1.79%

12" PVC

677.80
593+00.00
677.52

STA 50+10.01, 59.51' LT
CB-6, GRATE ELEV 677.23
12" (NW) 671.00
12" (S) 671.00
12" (SE) 671.00

13:1

12" TYPE B

STA 593+15.47, 48.76' LT
EX. MH, GRATE ELEV 678.42'
12" PVC WSW 674.00
12" PVC ENE 673.31
12" PVC SE 672.42

STA 593+30.00, 41.98' LT
CB-6, GRATE ELEV 677.70
12" (SW) 672.70
12" (SE) 672.70
12" (NE) 672.70

18" CLAY

STA 593+08.85, 49.03' RT
EX. PIO, GRATE ELEV 663.47'
12" PVC N 663.47

12" TYPE C

STA 592+68.00, 27.28' LT
CB-3A, GRATE ELEV 677.65
12" (NE) 673.65

12.7:1

12.5:1

FIBER OPTICS

GAS

64'-12" TYPE B @ 1.48%

12" TYPE B

12" WL.

677.85
592+50.00
677.97

2:1

21" SAN

680
675
670
665
660

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

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CROSS SECTIONS RIVERVIEW AVE.
STA. 592+50.00 TO STA. 593+50.00

HEN-NEW MAUMEE RIVER BRIDGE

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

STA 595+00.00, 3.65' LT
CB-6, GRATE ELEV 677.27
12" (W) 674.27

25.3:1

12.9:1

90'-12" TYPE B @ 1.09%

12" TYPE B

12" WL.

GAS

Ex R/W

18" SAN

677.33
595+00.00
676.04

2.1:1

26.9:1

13.2:1

GAS

12" TYPE B

12" WL.

677.30
594+50.00
675.17

STA 594+25.00, 51.25' LT
CB-6, GRATE ELEV 677.29
12" (E) 673.29
12" (SW) 673.29

GAS

12" TYPE B TYPE B 95'-12" @ 0.62%

90'-12" TYPE B @ 1.09%

12" WL.

594+00.00
678.02

680
675
670
665
660

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

CROSS SECTIONS RIVERVIEW AVE.
STA. 594+00.00 TO STA. 595+00.00

HEN-NEW MAUMEE RIVER BRIDGE

30
59

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

Ex R/W

680
675
670
665
660

GAS

10" STM.

12" WL.

677.12
596+50.00
677.27

12.5:1

2:1

15" SAN

STA 595+95.62, 32.02' LT
EX. SAN MH, GRATE ELEV 676.65'
18" CLAY SW 656.13
15" CLAY NE 656.13

4:1

12.5:1

12.6:1

677.27
596+00.00
677.38

STA 595+69.00, 23.72' LT
EX. CB, GRATE ELEV 676.29'
10" RCP E 673.75
6" CLAY SW 674.34

32.6:1

12.8:1

G

6" CLAY

677.32
595+50.00
677.36

18" SAN

R/W

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

CROSS SECTIONS RIVERVIEW AVE. STA. 595+50.00 TO STA. 596+50.00

HEN-NEW MAUMEE RIVER BRIDGE

31
59

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

STA 597+86.38, 29.34' LT
EX. PIO, GRATE ELEV 674.88'
8" CMP E 674.88

10" STM.

12" WL.

15" SAN

Ex R/W

12.5:1

2:1

676.67
598+00.00
676.73

676.82
597+50.00
676.84

676.97
597+00.00
677.04

680
675
670
665
660

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

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CROSS SECTIONS RIVERVIEW AVE.
STA. 597+00.00 TO STA. 598+00.00

HEN-NEW MAUMEE RIVER BRIDGE

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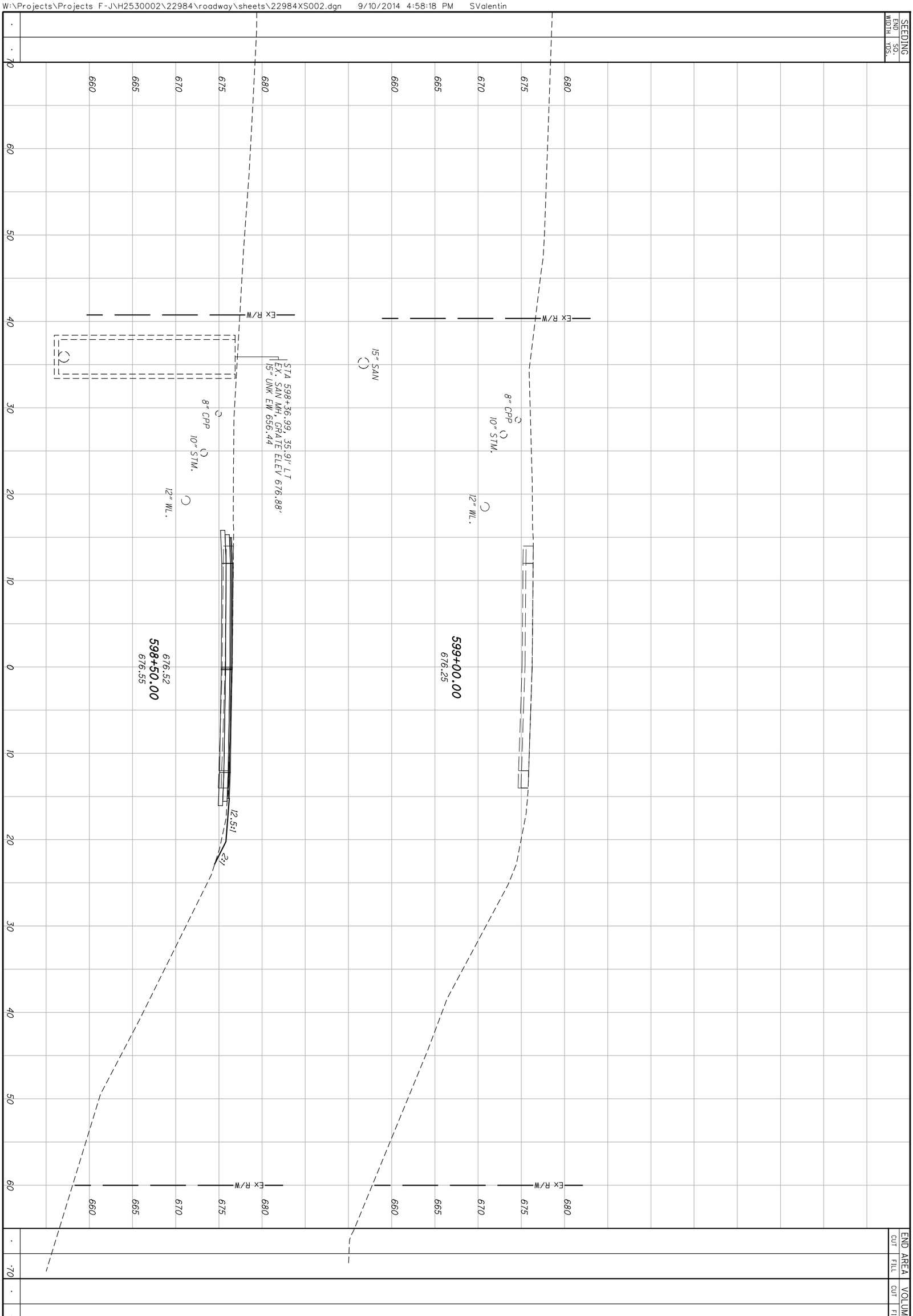


33 / 59	**HEN-NEW MAUMEE RIVER BRIDGE**	**CROSS SECTIONS RIVERVIEW AVE.** **STA. 598+50.00 TO STA. 599+00.00**
		CALCULATED CHECKED

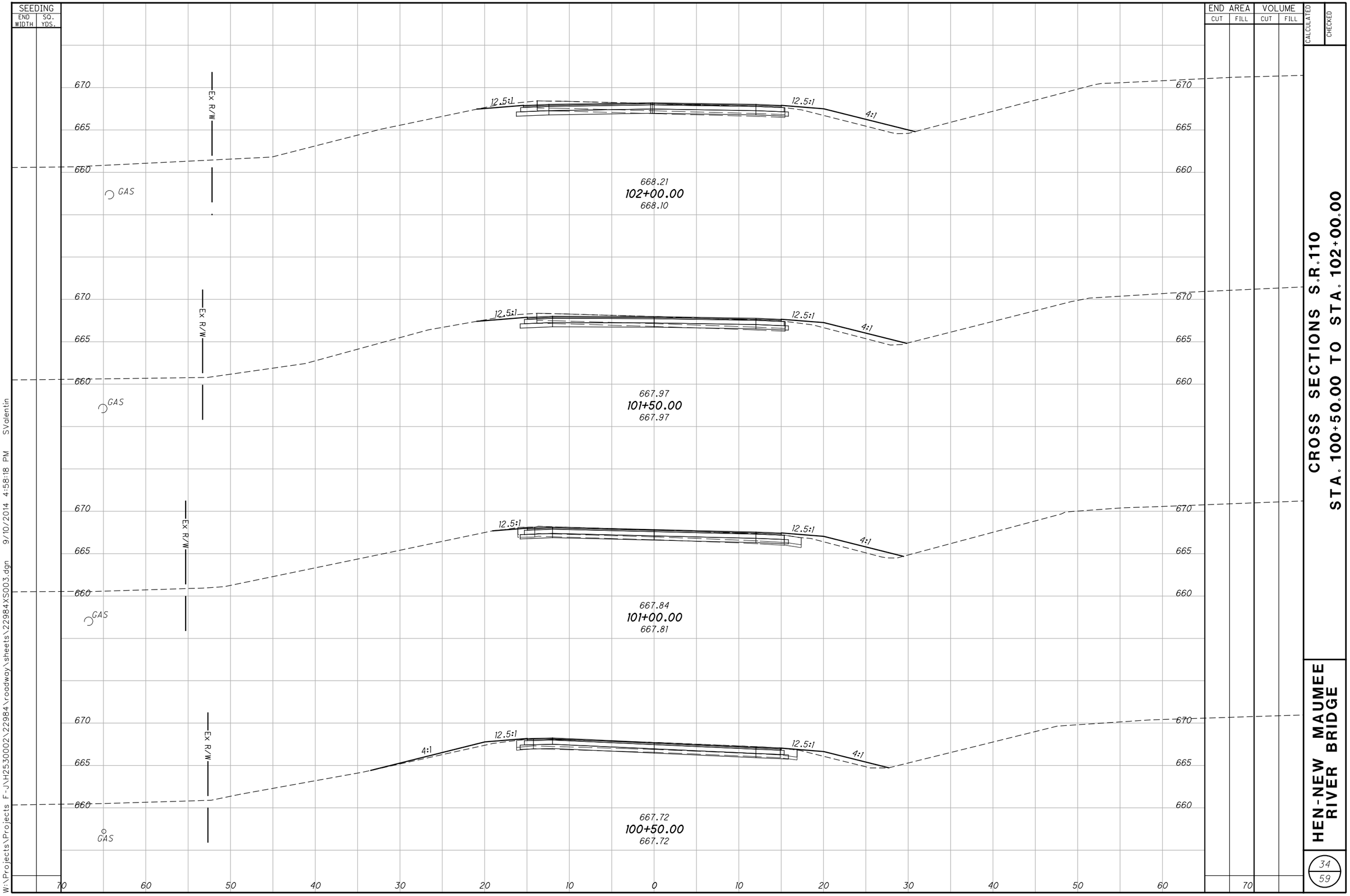
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



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CROSS SECTIONS S.R.110
STA. 100+50.00 TO STA. 102+00.00

HEN-NEW MAUMEE RIVER BRIDGE

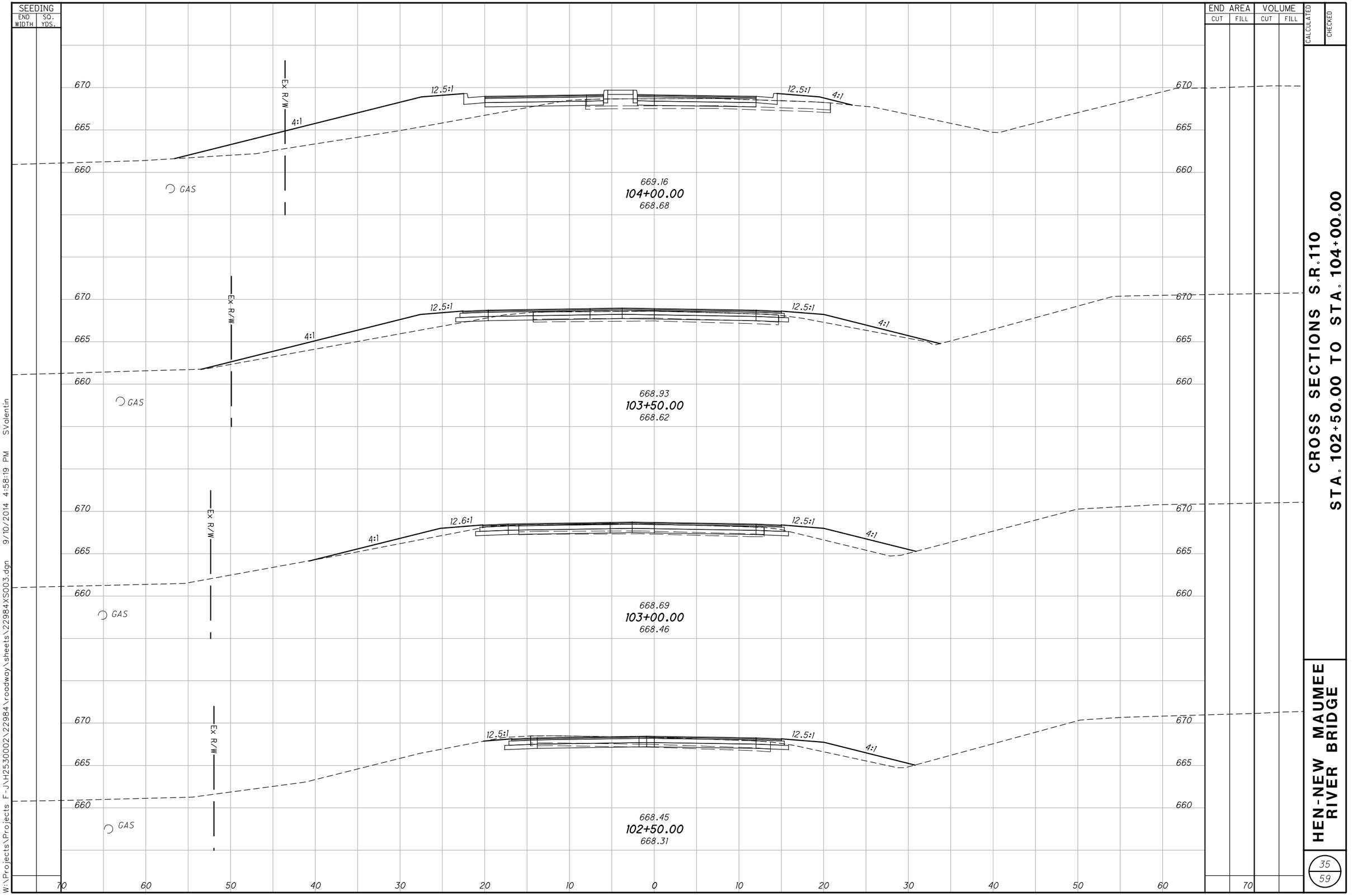
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



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CROSS SECTIONS S.R.110
STA. 102+50.00 TO STA. 104+00.00

HEN-NEW MAUMEE RIVER BRIDGE

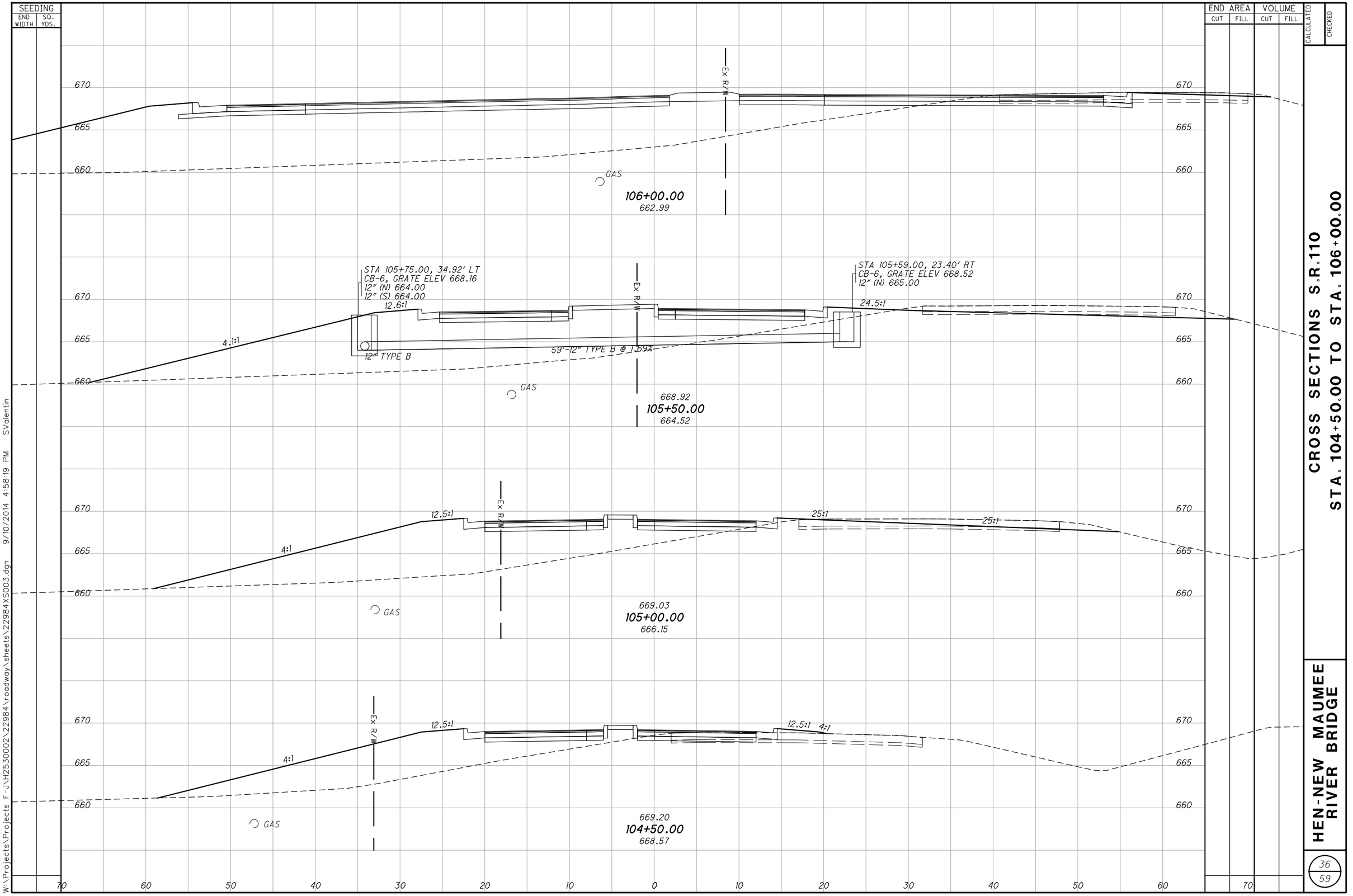
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS S.R.110
STA. 104+50.00 TO STA. 106+00.00

HEN-NEW MAUMEE RIVER BRIDGE

36
59

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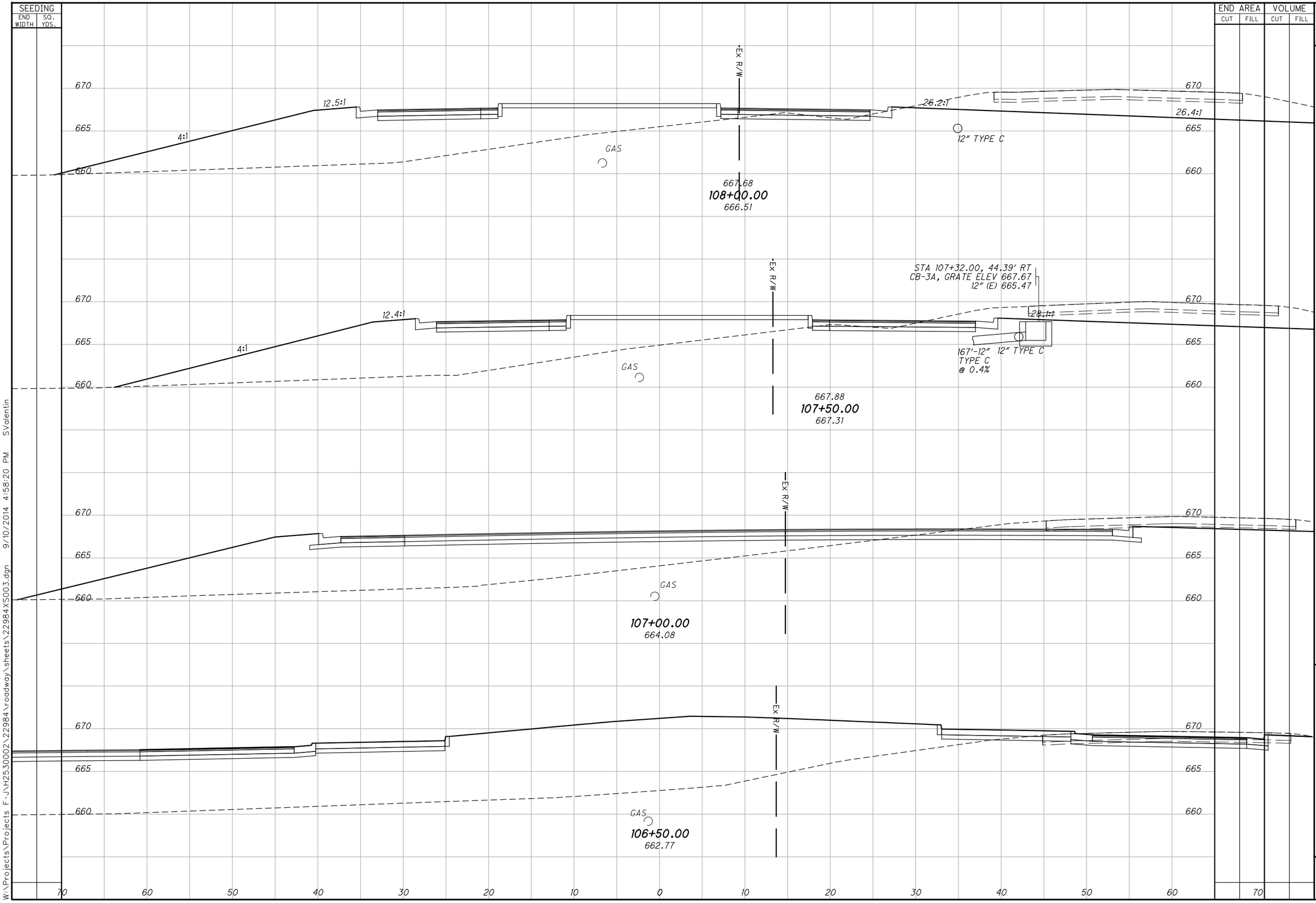
SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS S.R.110
STA. 106+50.00 TO STA. 108+00.00

HEN-NEW MAUMEE RIVER BRIDGE

37
59

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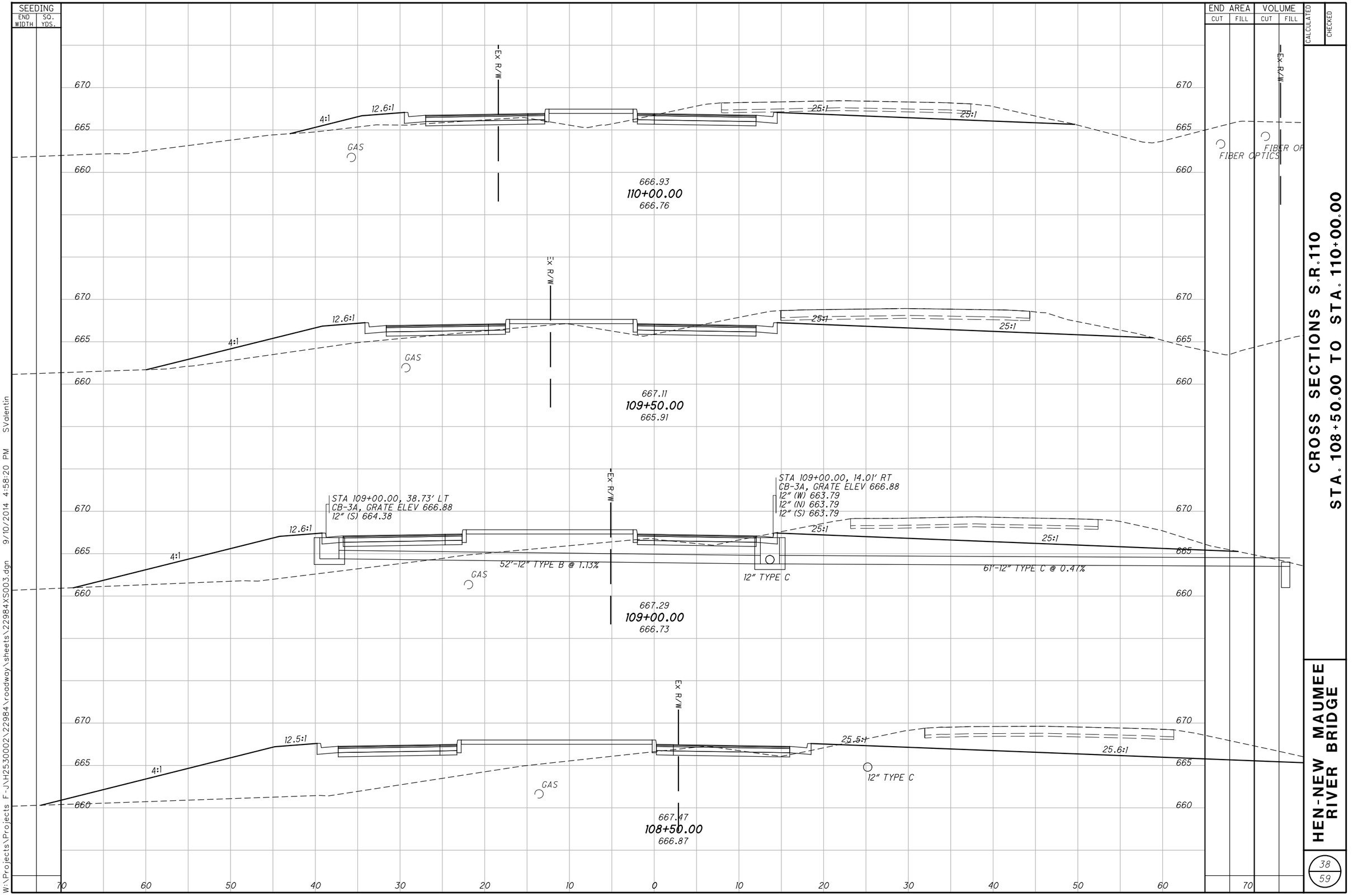
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



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CROSS SECTIONS S.R.110
STA. 108+50.00 TO STA. 110+00.00

HEN-NEW MAUMEE RIVER BRIDGE

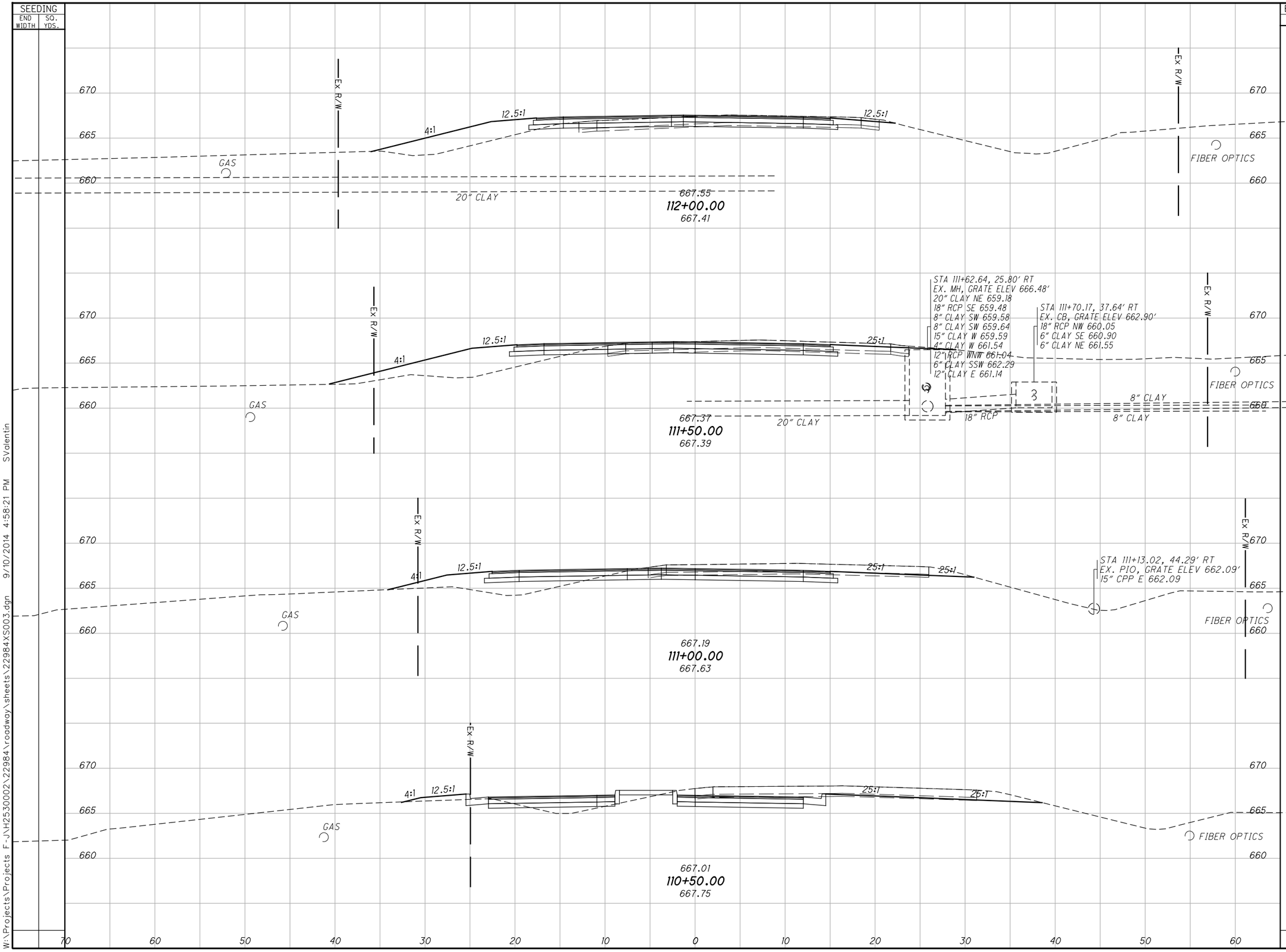
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED



CROSS SECTIONS S.R.110
STA. 110+50.00 TO STA. 112+00.00

HEN-NEW MAUMEE RIVER BRIDGE

39
59

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SEEDING	
END WIDTH	SQ. YDS.

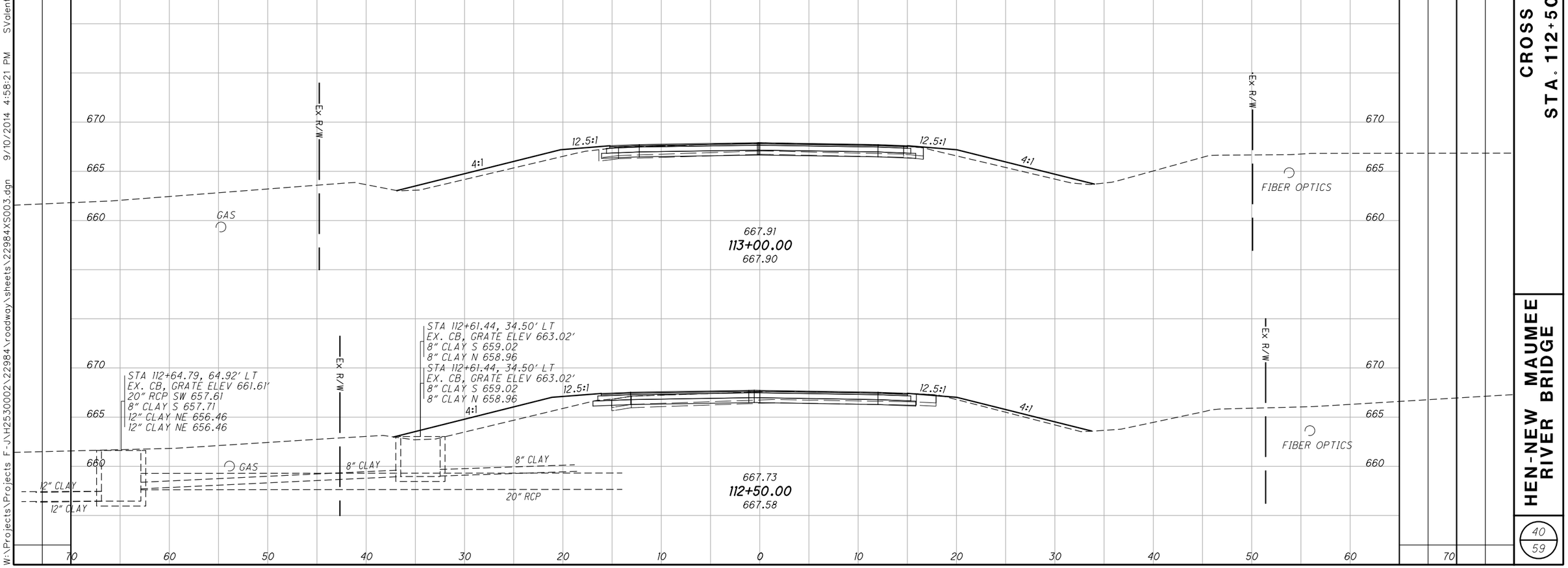
END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED

CHECKED

CROSS SECTIONS S.R.110
STA. 112+50.00 TO STA. 113+00.00



HEN-NEW MAUMEE RIVER BRIDGE

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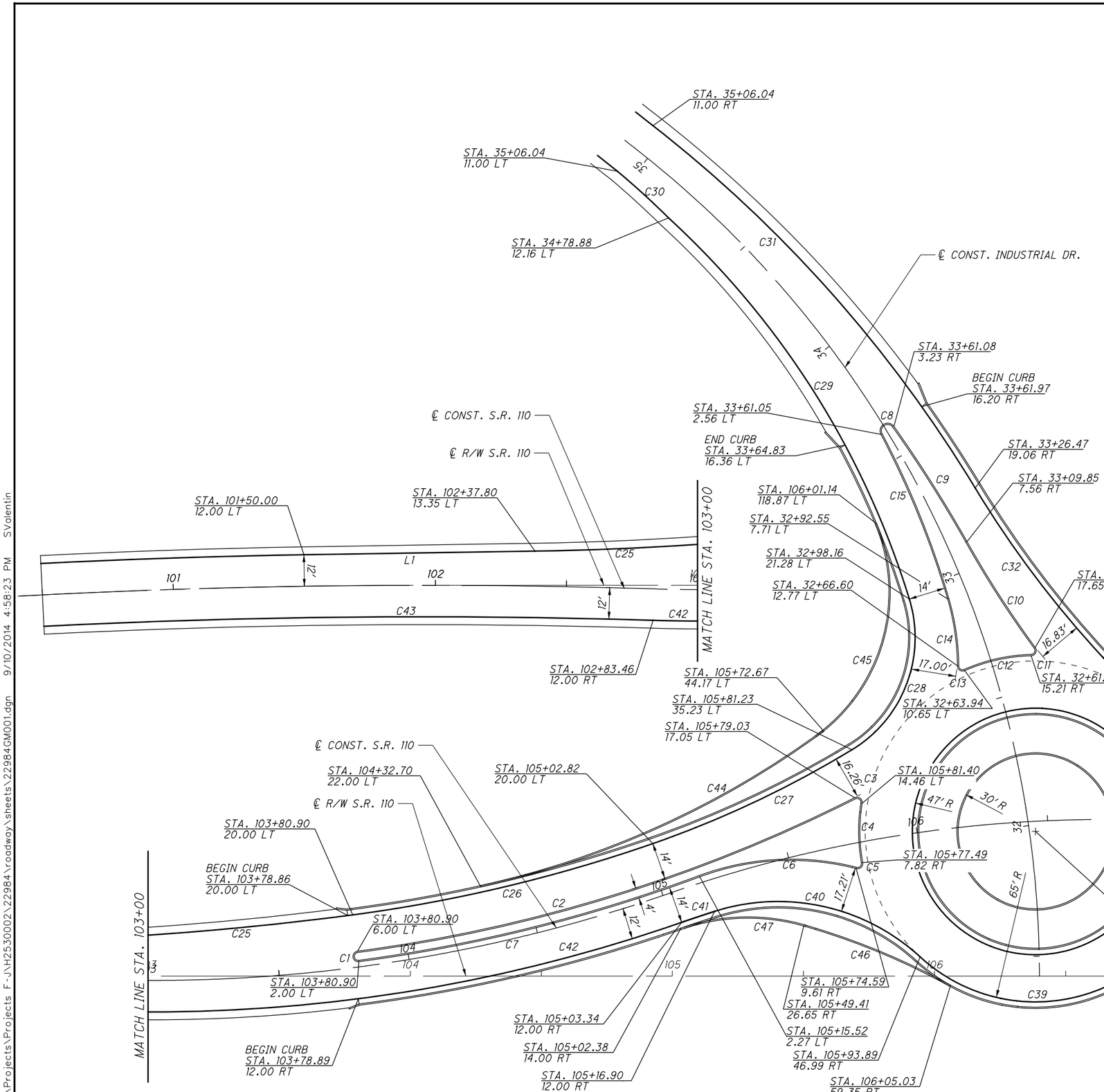

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD BRG
C1	4.71	2.00	180°0'00"	N/A	6.28	S 20°49'23" E
C2	199.41	594.00	19°14'05"	100.65	199.41	S 59°33'34" W
C3	4.40	2.00	126°00'00"	3.93	3.56	S 67°03'28" E
C4	22.74	67.00	19°26'36"	11.48	22.63	S 13°46'47" E
C5	4.00	2.00	114°36'07"	3.12	3.37	S 33°47'58" W
C6	60.72	100.00	34°47'16"	31.33	59.79	S 73°42'24" W
C7	134.27	598.00	12°51'51"	67.42	133.98	S 62°44'41" W
C8	8.73	2.90	172°20'50"	43.41	5.79	S 45°08'07" W
C9	52.08	498.00	5°59'31"	26.06	52.06	N 45°41'42" W
C10	48.04	402.00	6°50'51"	24.05	48.02	N 46°07'22" W
C11	4.36	2.00	124°49'01"	3.83	3.54	N 12°51'43" E
C12	26.11	67.00	22°19'41"	13.22	25.94	S 64°06'23" W
C13	3.96	2.00	113°29'50"	3.05	3.35	S 70°18'32" E
C14	25.87	92.00	16°06'43"	13.02	25.79	N 21°36'59" W
C15	67.84	342.00	11°21'57"	34.03	67.73	N 35°21'19" W
C16	6.16	2.00	176°22'15"	63.13	4.00	N 6°04'48" W
C17	202.10	2678.00	4°19'26"	101.10	202.06	N 84°16'03" E
C18	179.67	402.00	25°36'26"	91.36	178.18	S 73°37'33" W
C19	4.36	2.00	124°49'01"	3.83	3.55	N 56°46'10" W
C20	37.01	67.00	31°39'03"	18.99	36.54	S 10°11'11" E
C21	4.10	2.00	117°21'43"	3.29	3.42	S 32°40'09" W
C22	46.71	127.00	21°04'18"	23.62	46.44	S 80°48'52" W
C23	152.89	398.00	22°00'35"	77.40	151.95	N 81°17'00" E
C24	183.24	1602.00	6°33'13"	91.72	183.14	S 89°00'41" W
C25	140.49	1213.00	6°38'10"	70.33	140.41	S 72°29'42" W
C26	117.85	580.00	11°38'31"	59.13	117.65	S 63°21'21" W
C27	84.16	400.00	12°03'20"	42.24	84.01	S 51°30'26" W
C28	66.20	50.00	75°51'48"	38.97	61.47	S 7°32'52" W
C29	173.96	328.00	30°23'13"	89.08	171.92	S 45°34'39" E
C30	26.41	328.27	4°36'33"	13.21	26.40	S 60°54'12" E
C31	185.96	511.00	20°51'02"	94.02	184.93	S 54°56'54" E
C32	100.27	400.00	14°21'45"	50.40	100.01	N 51°42'16" W
C33	7.88	40.00	11°16'51"	3.95	7.86	N 64°31'34" W
C34	80.20	120.00	38°17'28"	41.66	78.71	N 89°18'43" W
C35	149.18	412.00	20°44'45"	75.41	148.36	N 81°54'55" E
C36	431.74	1588.00	15°34'38"	217.21	430.41	S 84°29'58" W
C37	443.92	2692.00	9°26'54"	222.47	443.42	S 81°26'06" W
C38	232.66	400.00	33°19'33"	119.72	229.39	S 69°29'47" W
C39	75.43	65.00	66°29'33"	42.61	71.27	S 86°04'47" W
C40	84.18	80.00	60°17'14"	46.46	80.35	S 89°10'56" W
C41	13.23	488.00	1°33'13"	6.62	13.23	N 58°15'43" E
C42	224.28	612.00	20°59'50"	113.41	223.03	S 67°59'01" W
C43	132.90	2852.80	2°30'09"	66.46	132.89	N 77°08'52" E
C44	144.73	348.00	23°49'46"	73.43	143.69	S 52°18'57" W
C45	91.24	68.00	76°52'42"	53.97	84.55	N 2°34'11" E
C46	60.58	268.00	12°57'06"	30.42	60.45	N 80°51'14" W
C47	48.71	78.00	35°46'39"	25.18	47.92	S 75°27'56" W

LINE TABLE		
LINE	LENGTH	BEARING
L1	88.20	N 75°48'47" E

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED | CHECKED

ROUNDABOUT GEOMETRIC DETAIL
INDUSTRIAL DR. & S.R. 110
HEN-NEW MAUMEE RIVER BRIDGE

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NOTE: SEE SHEET XX FOR CURVE AND LINE DATA.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED | CHECKED

ROUNDABOUT GEOMETRIC DETAIL
INDUSTRIAL DR. & S.R. 110

HEN-NEW MAUMEE RIVER BRIDGE

42
59

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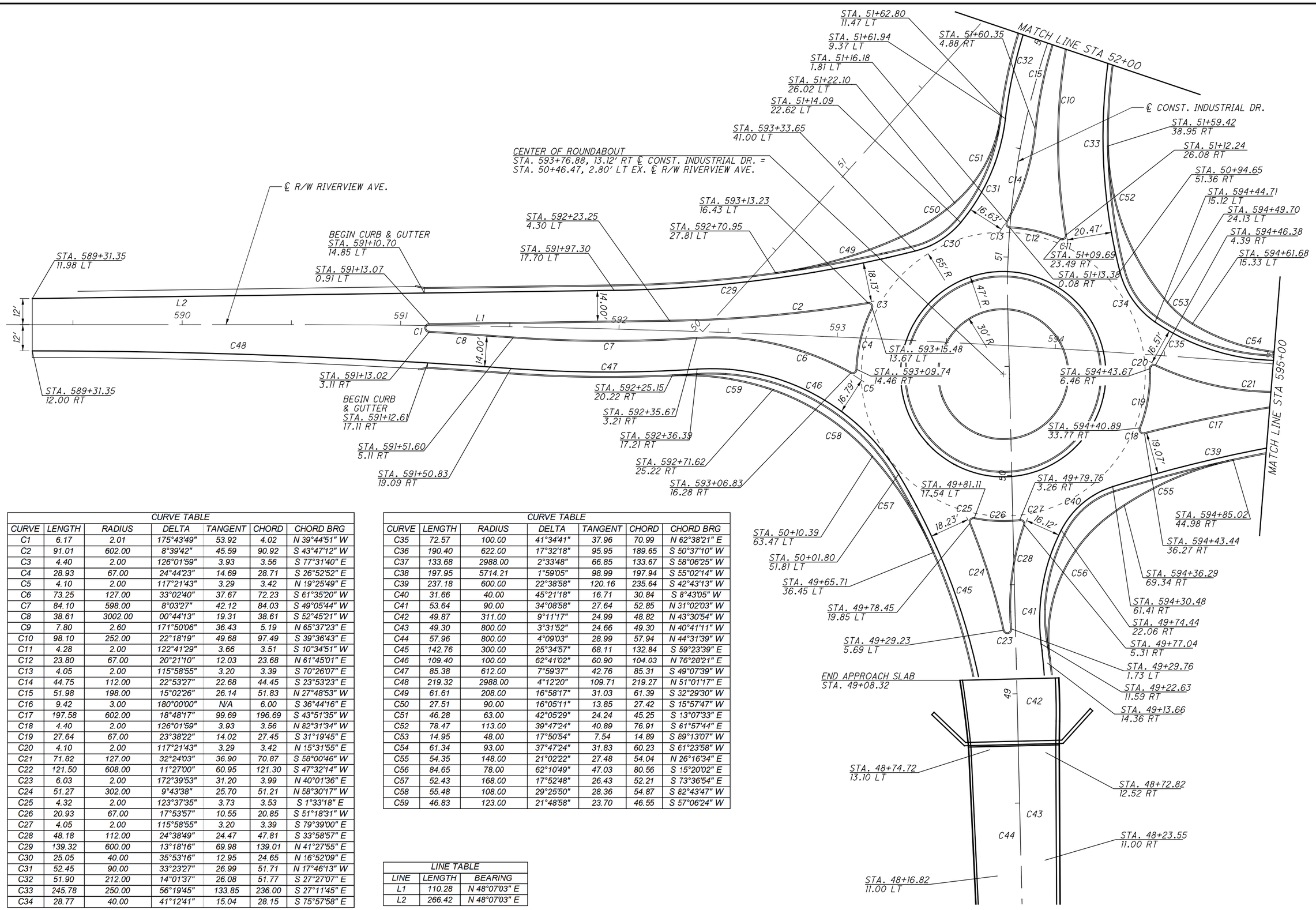

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD BRG
C1	6.17	2.01	175°43'49"	53.92	4.02	N 39°44'51" W
C2	91.01	602.00	8°39'42"	45.59	90.92	S 43°47'12" W
C3	4.40	2.00	126°01'59"	3.93	3.56	S 77°31'40" E
C4	28.93	67.00	24°44'23"	14.69	28.71	S 26°52'52" E
C5	4.10	2.00	117°21'43"	3.29	3.42	N 19°25'49" E
C6	73.25	127.00	33°02'40"	37.67	72.23	S 61°35'20" W
C7	84.10	598.00	8°03'27"	42.12	84.03	S 49°05'44" W
C8	38.61	3002.00	00°44'13"	19.31	38.61	S 52°45'21" W
C9	7.80	2.60	171°50'06"	36.43	5.19	N 65°37'23" E
C10	98.10	252.00	22°18'19"	49.68	97.49	S 39°36'43" E
C11	4.28	2.00	122°41'29"	3.66	3.51	S 10°34'51" W
C12	23.80	67.00	20°21'10"	12.03	23.68	N 61°45'01" E
C13	4.05	2.00	115°58'55"	3.20	3.39	S 70°26'07" E
C14	44.75	112.00	22°53'27"	22.68	44.45	S 23°53'23" E
C15	51.98	198.00	15°02'26"	26.14	51.83	N 27°48'53" W
C16	9.42	3.00	180°00'00"	N/A	6.00	S 36°44'16" E
C17	197.58	602.00	18°48'17"	99.69	196.69	S 43°51'35" W
C18	4.40	2.00	126°01'59"	3.93	3.56	N 82°31'34" W
C19	27.64	67.00	23°38'22"	14.02	27.45	S 31°19'45" E
C20	4.10	2.00	117°21'43"	3.29	3.42	N 15°31'55" E
C21	71.82	127.00	32°24'03"	36.90	70.87	S 58°00'46" W
C22	121.50	608.00	11°27'00"	60.95	121.30	S 47°32'14" W
C23	6.03	2.00	172°39'53"	31.20	3.99	N 40°01'36" E
C24	51.27	302.00	9°43'38"	25.70	51.21	N 58°30'17" W
C25	4.32	2.00	123°37'35"	3.73	3.53	S 1°33'18" E
C26	20.93	67.00	17°53'57"	10.55	20.85	S 51°18'31" W
C27	4.05	2.00	115°58'55"	3.20	3.39	S 79°39'00" E
C28	48.18	112.00	24°38'49"	24.47	47.81	S 33°58'57" E
C29	139.32	600.00	13°18'16"	69.98	139.01	N 41°27'55" E
C30	25.05	40.00	35°53'16"	12.95	24.65	N 16°52'09" E
C31	52.45	90.00	33°23'27"	26.99	51.71	N 17°46'13" W
C32	51.90	212.00	14°01'37"	26.08	51.77	S 27°27'07" E
C33	245.78	250.00	56°19'45"	133.85	236.00	S 27°11'45" E
C34	28.77	40.00	41°12'41"	15.04	28.15	S 75°57'58" E

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD BRG
C35	72.57	100.00	41°34'41"	37.96	70.99	N 62°38'21" E
C36	190.40	622.00	17°32'18"	95.95	189.65	S 50°37'10" W
C37	133.68	2988.00	2°33'48"	66.85	133.67	S 58°06'25" W
C38	197.95	5714.21	1°59'05"	98.99	197.94	S 55°02'14" W
C39	237.18	600.00	22°38'58"	120.16	235.64	S 42°43'13" W
C40	31.66	40.00	45°21'18"	16.71	30.84	S 8°43'05" W
C41	53.64	90.00	34°08'58"	27.64	52.85	N 31°02'03" W
C42	49.87	311.00	9°11'17"	24.99	48.82	N 43°30'54" W
C43	49.30	800.00	3°31'52"	24.66	49.30	N 40°41'11" W
C44	57.96	800.00	4°09'03"	28.99	57.94	N 44°31'39" W
C45	142.76	300.00	25°34'57"	68.11	132.84	S 59°23'39" E
C46	109.40	100.00	62°41'02"	60.90	104.03	N 76°28'21" E
C47	85.38	612.00	7°59'37"	42.76	85.31	S 49°07'39" W
C48	219.32	2988.00	4°12'20"	109.71	219.27	N 51°01'17" E
C49	61.61	208.00	16°58'17"	31.03	61.39	S 32°29'30" W
C50	27.51	90.00	16°05'11"	13.85	27.42	S 15°57'47" W
C51	46.28	63.00	42°05'29"	24.24	45.25	S 13°07'33" E
C52	78.47	113.00	39°47'24"	40.89	76.91	S 61°57'44" E
C53	14.95	48.00	17°50'54"	7.54	14.89	S 89°13'07" W
C54	61.34	93.00	37°47'24"	31.83	60.23	S 61°23'58" W
C55	54.35	148.00	21°02'22"	27.48	54.04	N 26°16'34" E
C56	84.65	78.00	62°10'49"	47.03	80.56	S 15°20'02" E
C57	52.43	168.00	17°52'48"	26.43	52.21	S 73°36'54" E
C58	55.48	108.00	29°25'50"	28.36	54.87	S 62°43'47" W
C59	46.83	123.00	21°48'58"	23.70	46.55	S 57°06'24" W

LINE TABLE		
LINE	LENGTH	BEARING
L1	110.28	N 48°07'03" E
L2	266.42	N 48°07'03" E

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED
CHECKED

ROUNDABOUT GEOMETRIC DETAIL
INDUSTRIAL DR. & RIVERVIEW AVE.

HEN-NEW MAUMEE RIVER BRIDGE

43
59

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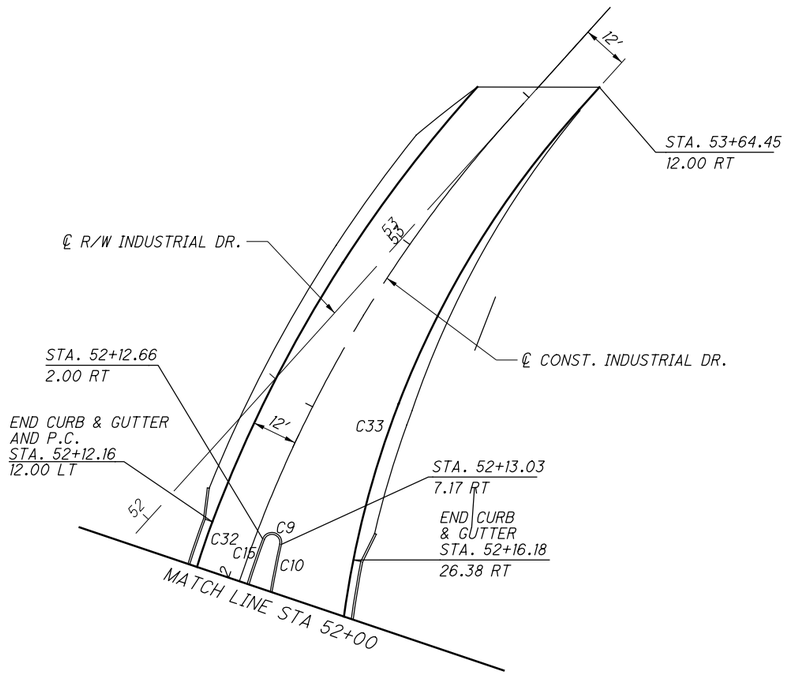

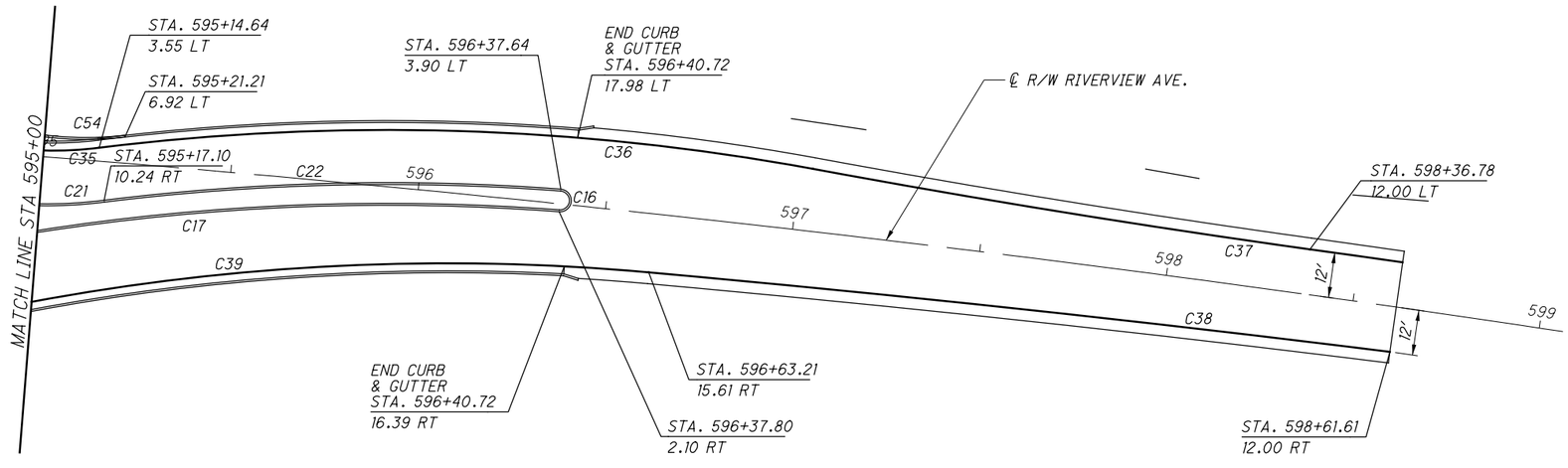

NOTE: SEE SHEET XX FOR CURB AND LINE DATA

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED | CHECKED

ROUNDABOUT GEOMETRIC DETAIL
INDUSTRIAL DR. & RIVERVIEW AVE.

HEN-NEW MAUMEE RIVER BRIDGE

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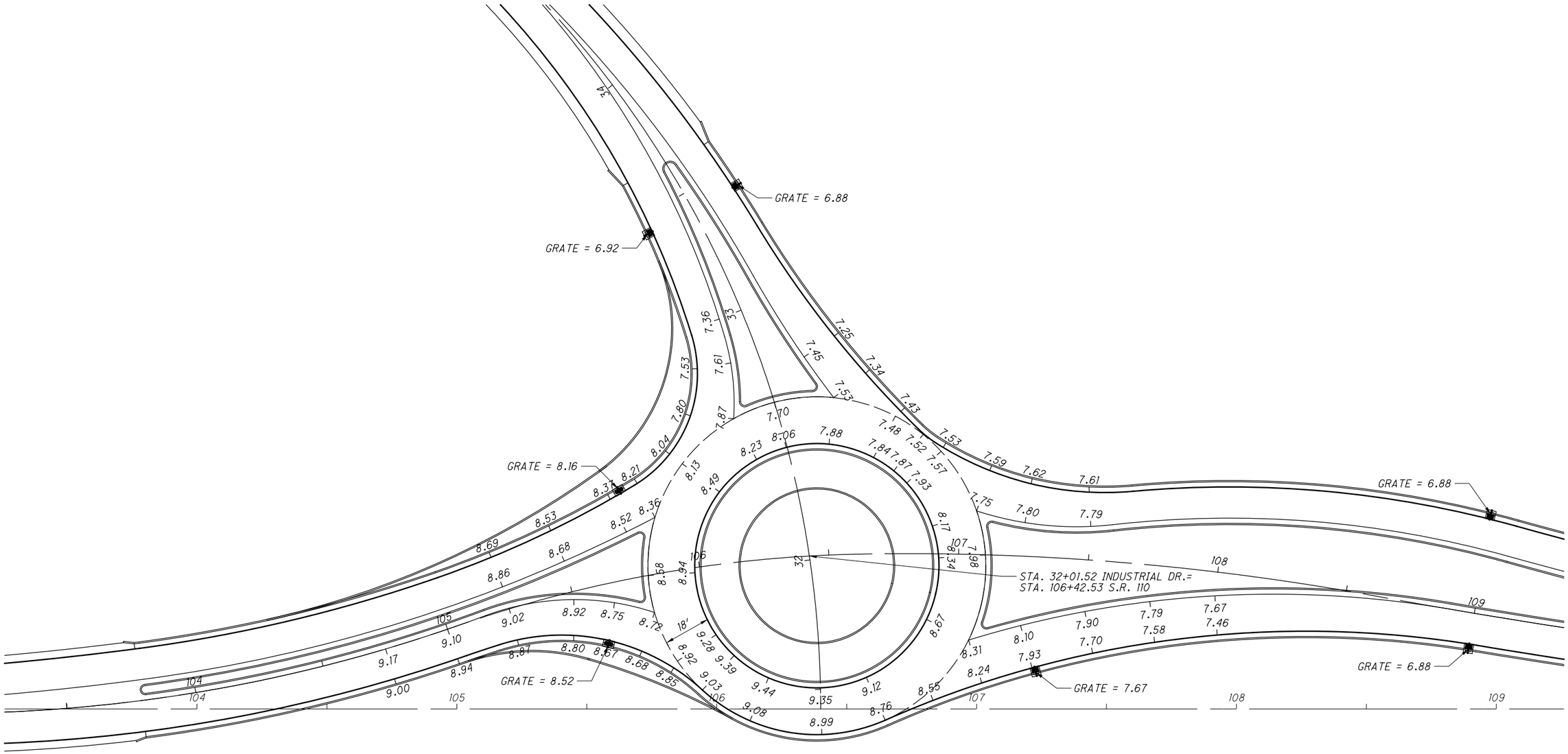

NOTES:

ADD 660 TO ALL ELEVATIONS
FOR TYPICAL SECTIONS, SEE SHEET **
SEE ROUNDABOUT GEOMETRIC PLAN FOR CURVE DATA

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED | CHECKED

ROUNDABOUT GRADING DETAIL
INDUSTRIAL DR. & S.R. 110

HEN-NEW MAUMEE RIVER BRIDGE

45
59

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GRATE ELEVATION = 7.70

GRATE ELEVATION = 7.65

GRATE ELEVATION = 7.29

STA. 50+59.41 INDUSTRIAL DR. =
STA. 593+78.62 RIVERVIEW AVE.

GRATE ELEVATION = 7.27

GRATE ELEVATION = 7.23

GRATE ELEVATION = 6.44

GRATE ELEVATION = 6.20

GRATE ELEVATION = 6.25

NOTES:

ADD 670 TO ALL ELEVATIONS
FOR TYPICAL SECTIONS, SEE SHEET **
SEE ROUNDABOUT GEOMETRIC PLAN FOR CURVE DATA

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED | CHECKED

ROUNDABOUT GRADING DETAIL
INDUSTRIAL DR. & RIVERVIEW AVE.

HEN-NEW MAUMEE RIVER BRIDGE

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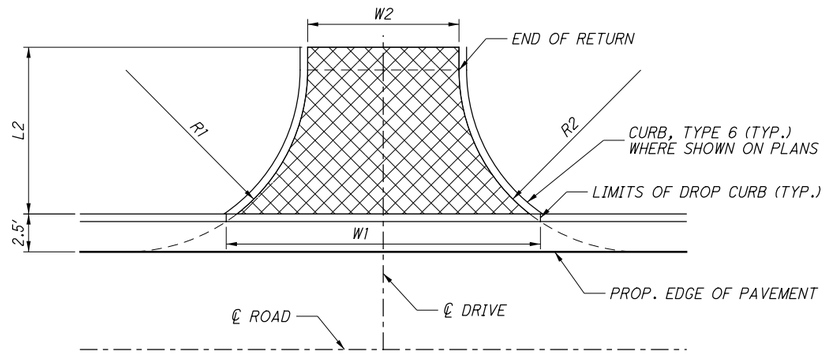
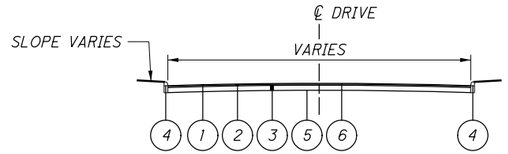
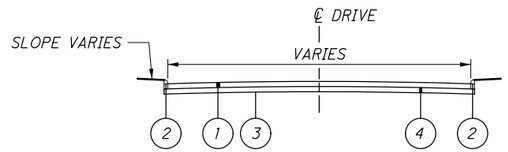
MATCH EXISTING DRIVE MATERIAL



DRIVE PLAN DETAIL WITHOUT WALK



(1) ITEM 441 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) (DRIVEWAYS)
(2) ITEM 441 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (DRIVEWAYS)
(3) ITEM 304 8" AGGREGATE BASE
(4) ITEM 609 CURB, TYPE 6
(5) ITEM 204, SUBGRADE COMPACTION
(6) ITEM 690, SPECIAL-MISC.: TRACKLESS TACK COAT (0.04 GAL./SY. YD.)



(1) ITEM 452 8" NON-REINFORCED CONCRETE PAVEMENT
(2) ITEM 609 CURB, TYPE 6
(3) ITEM 204 SUBGRADE COMPACTION
(4) ITEM 304 6" AGGREGATE BASE

CALCULATED | CHECKED

DRIVE DETAILS

HEN-NEW MAUMEE RIVER BRIDGE

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

680
675

28.50' LT.
1.78%
15.00' LT.
12" WL.
676.49
598+57.80
676.50

680
675

26.96' LT.
5.44%
15.38' LT.
12" WL.
676.67
597+97.51
676.78

680
675

28.84' LT.
6.84%
19.38' LT.
12" WL.
676.95
597+05.35
677.15

680
675

38.47' LT.
2.94%
22.49' LT.
FIBER OPTICS
GAS
12" WL.
677.93
592+29.53
678.10

680
675

38.42' LT.
2.25%
13.42' LT.
12" WL.
589+24.72
677.00

685
680
675

18.59' RT.
1.68%
28.89' RT.
GAS
G
679.21
52+87.48
679.19
12" WL.

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

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DRIVEWAY PROFILES
INDUSTRIAL DR.

HEN-NEW MAUMEE RIVER BRIDGE

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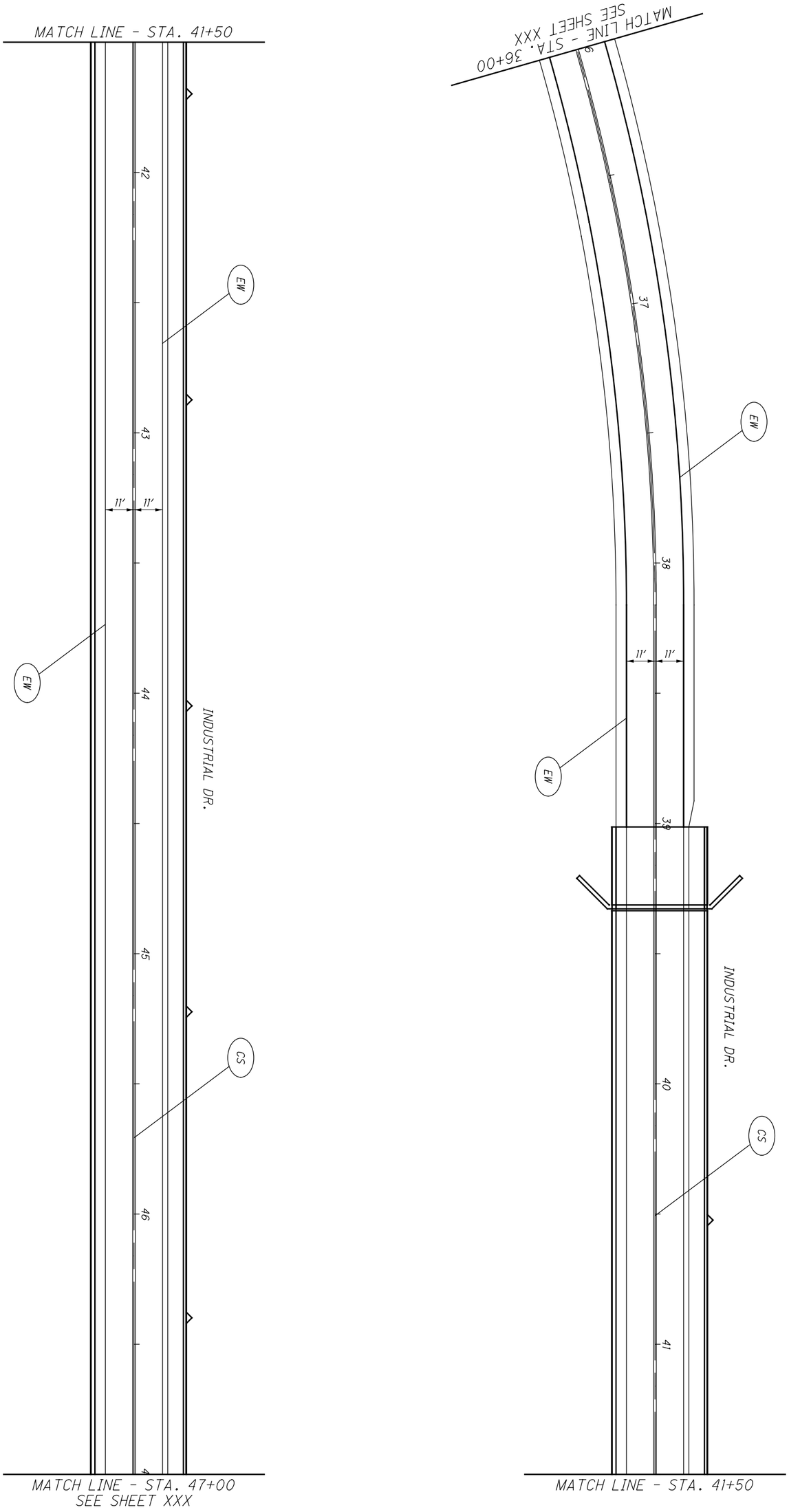
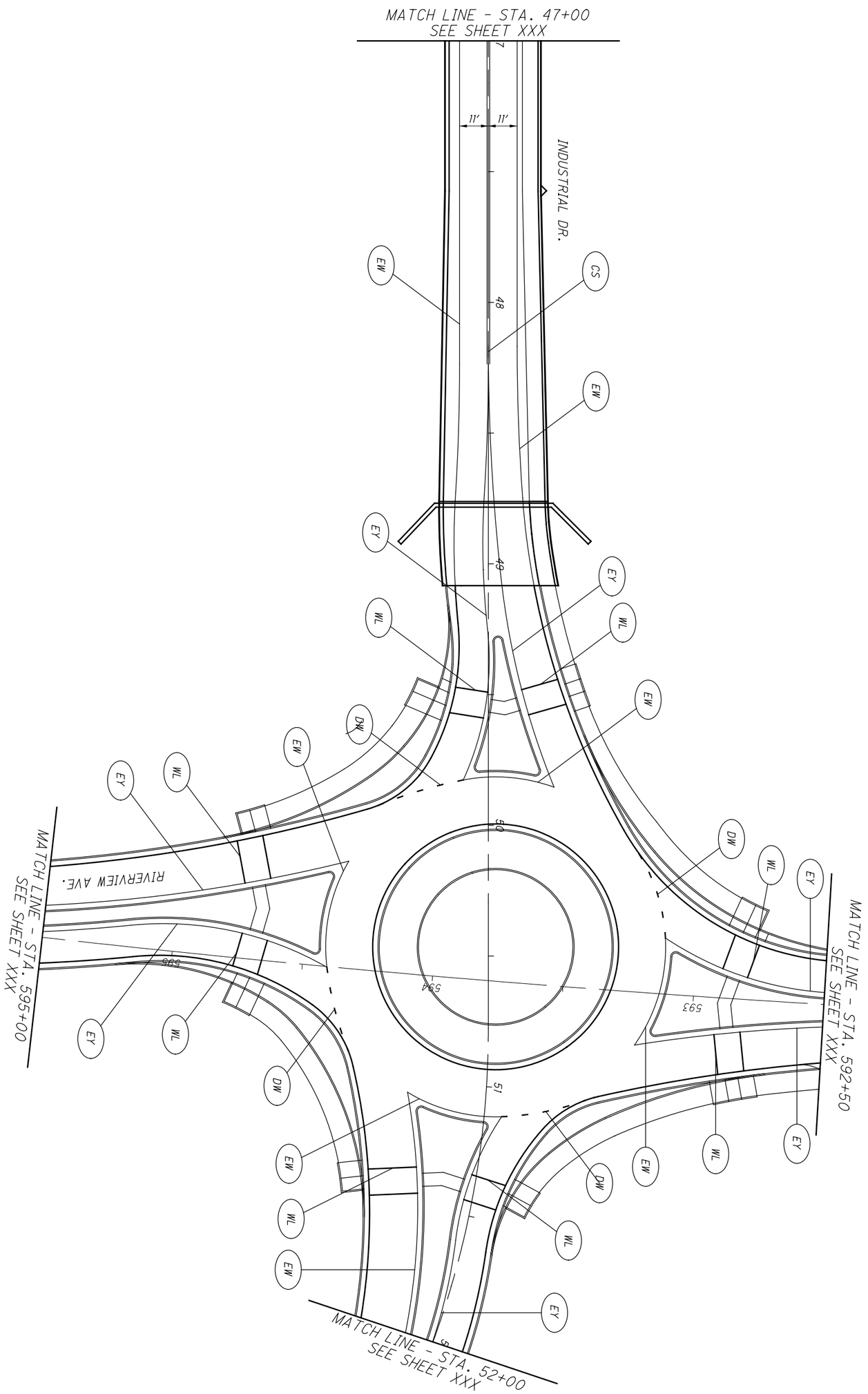
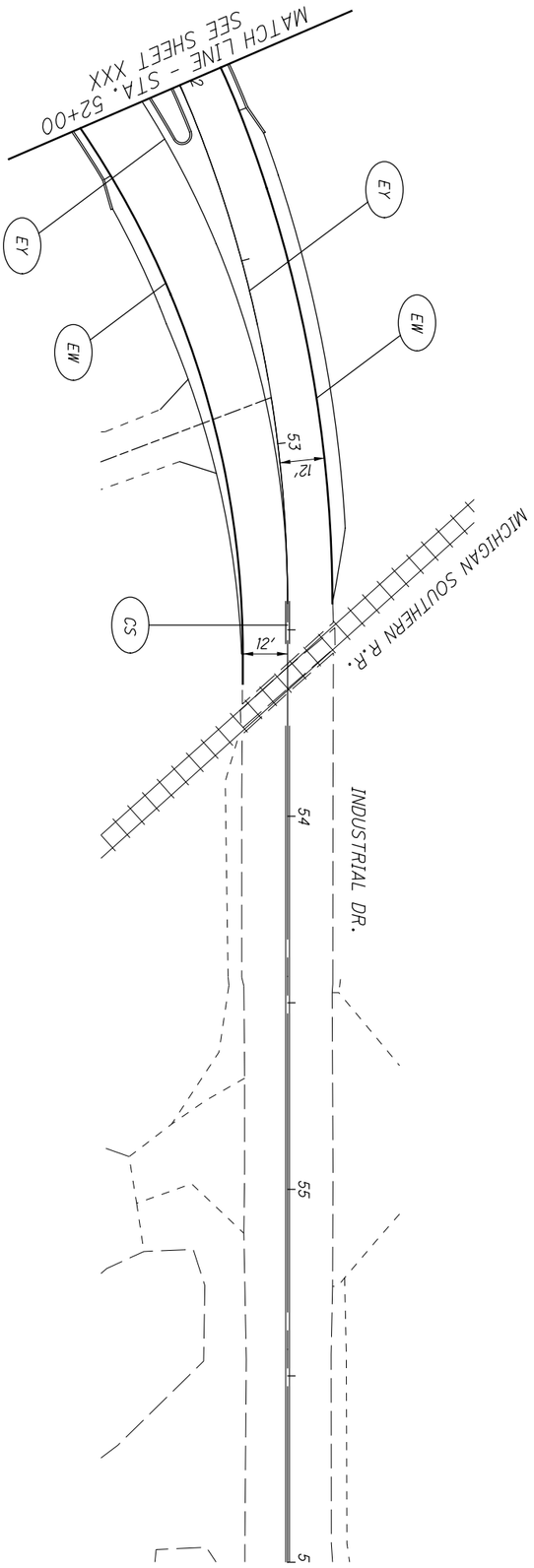


49 / 59	HEN-INDUSTRIAL DR.	PAVEMENT MARKING PLAN INDUSTRIAL DR.	CALCULATED CHECKED	0 20 10 40 HORIZONTAL SCALE IN FEET



59 / 59	HEN-INDUSTRIAL DR.	PAVEMENT MARKING PLAN INDUSTRIAL DR.	CALCULATED CHECKED	0 HORIZONTAL SCALE IN FEET



53 / 57	HEN-INDUSTRIAL DR.	**PAVEMENT MARKING PLAN** **INDUSTRIAL DR.**	CALCULATED CHECKED	0 20 10 40 HORIZONTAL SCALE IN FEET

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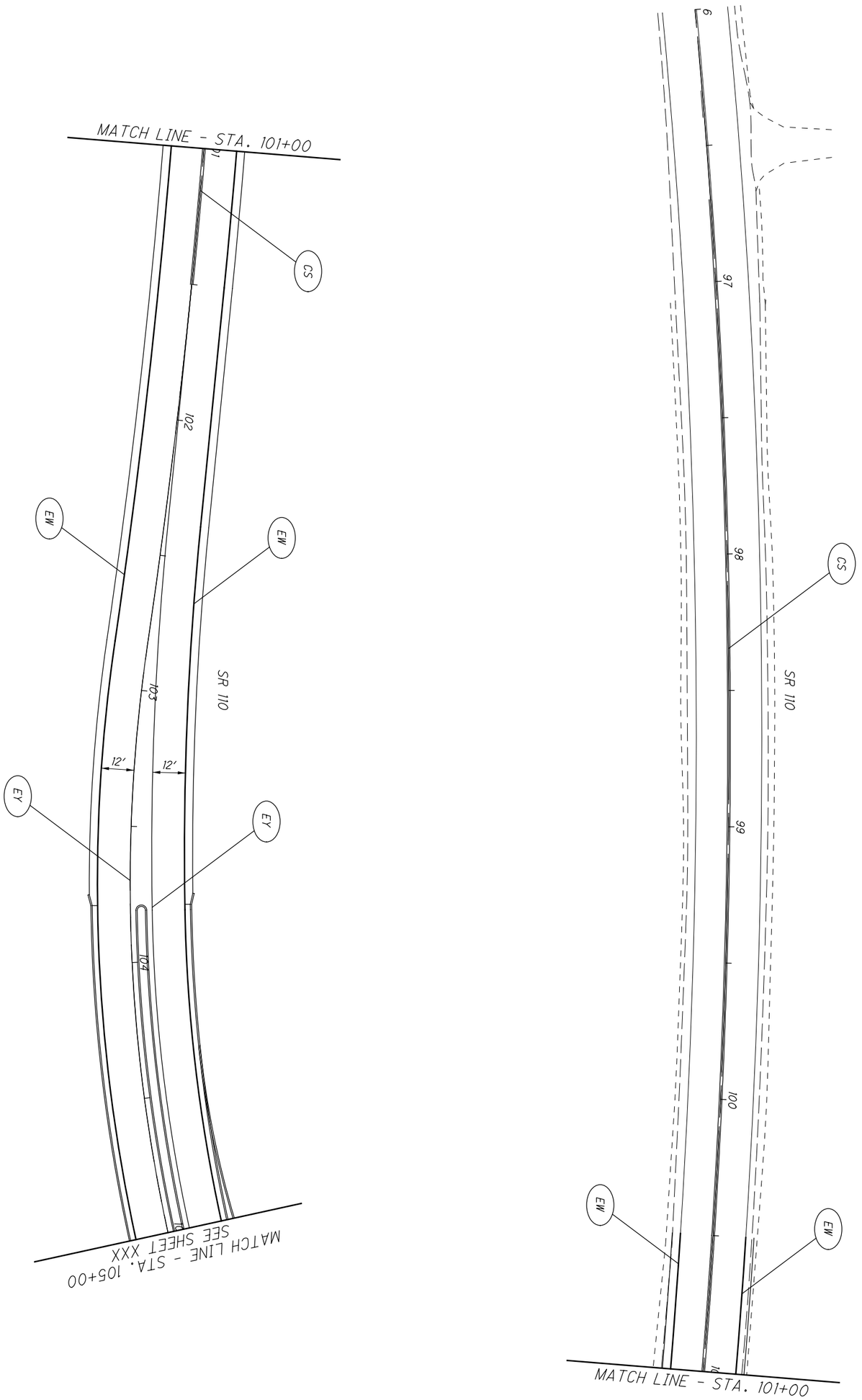

52 / 59	HEN-INDUSTRIAL DR.	PAVEMENT MARKING PLAN SR 110	CALCULATED CHECKED	0 10 20 40 HORIZONTAL SCALE IN FEET

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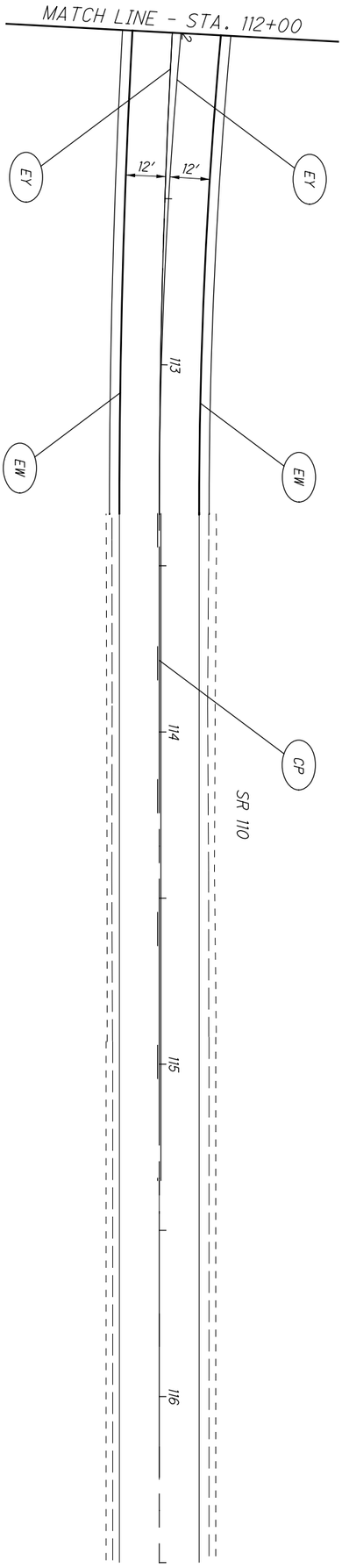
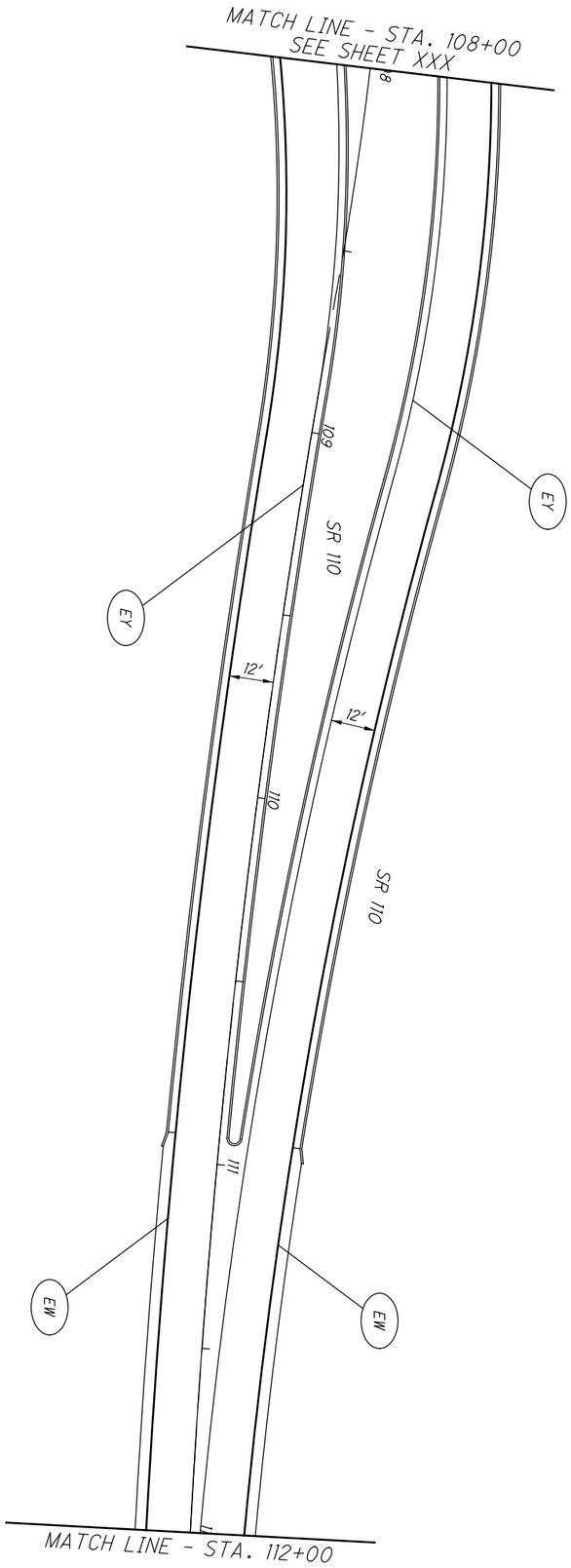
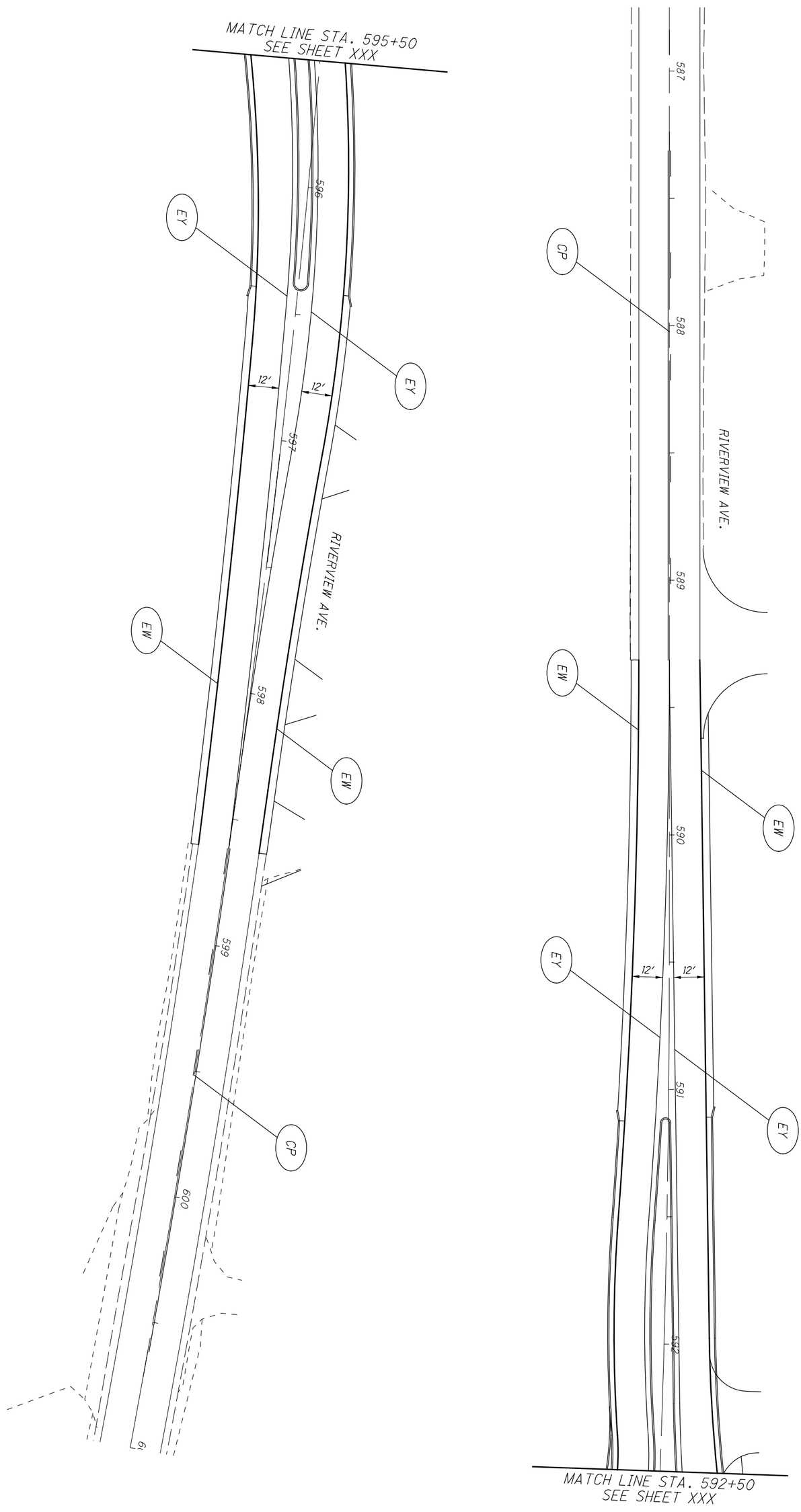
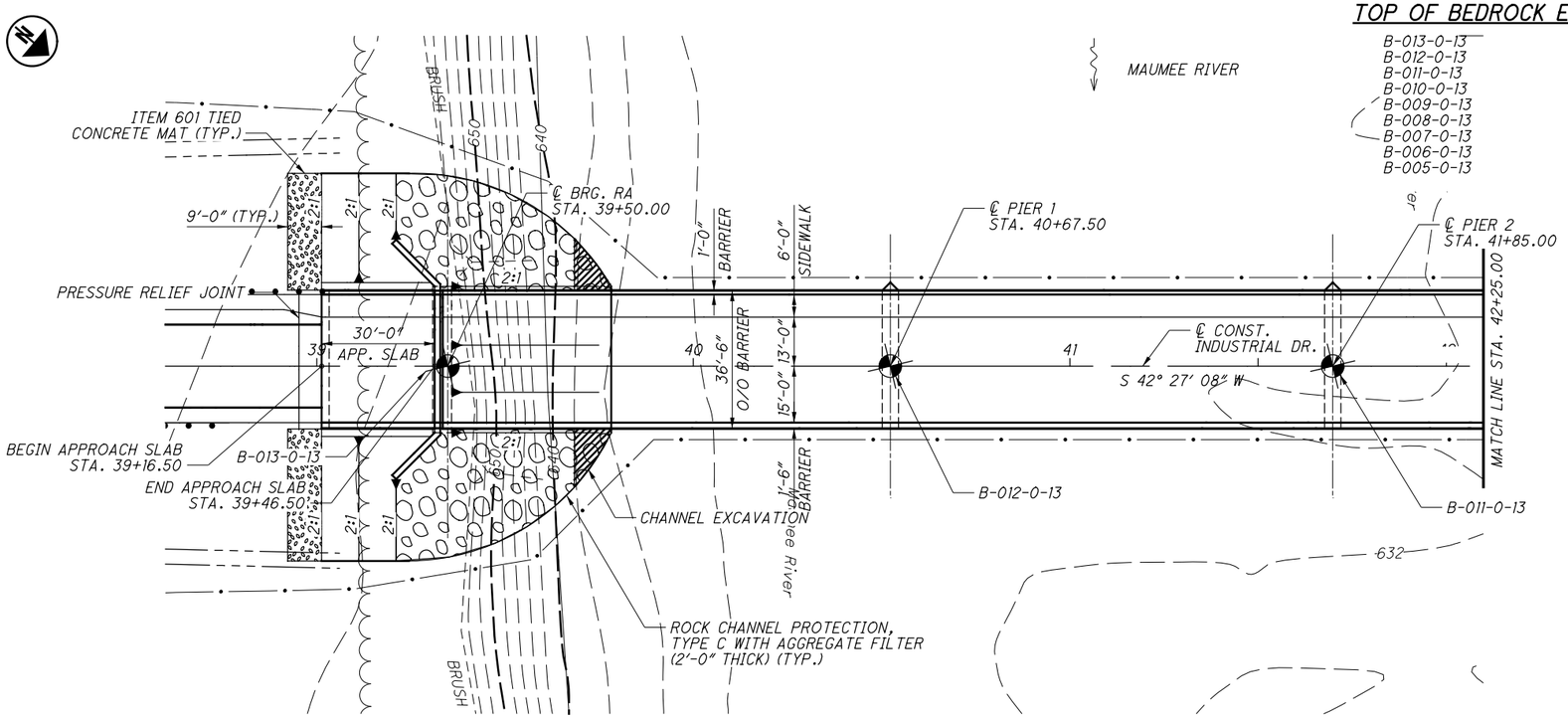




53 / 59	HEN-INDUSTRIAL DR.	PAVEMENT MARKING PLAN SR 110	CALCULATED CHECKED	0 20 10 40 HORIZONTAL SCALE IN FEET



53 / 54	HEN-INDUSTRIAL DR.	PAVEMENT MARKING PLAN RIVERVIEW AVE.	CALCULATED CHECKED	0 20 10 40 HORIZONTAL SCALE IN FEET



PART PLAN

TOP OF BEDROCK ELEVATIONS

BENCHMARK DATA				
BM #1 STA.	,	ELEV.	, OFFSET	,
BM #2 STA.	,	ELEV.	, OFFSET	,
BM #3 STA.	,	ELEV.	, OFFSET	,
BM #4 STA.	,	ELEV.	, OFFSET	,

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. FOR BENCHMARK DESCRIPTIONS SEE ROADWAY PLANS

DESIGN TRAFFIC:
2015 ADT = 7660 2015 ADTT = 690
2015 ADT = 9860 2035 ADTT = 890
DIRECTIONAL DISTRIBUTION = 0.55

LEGEND

BORING LOCATION
- CHANNEL EXCAVATION

HYDRAULIC DATA

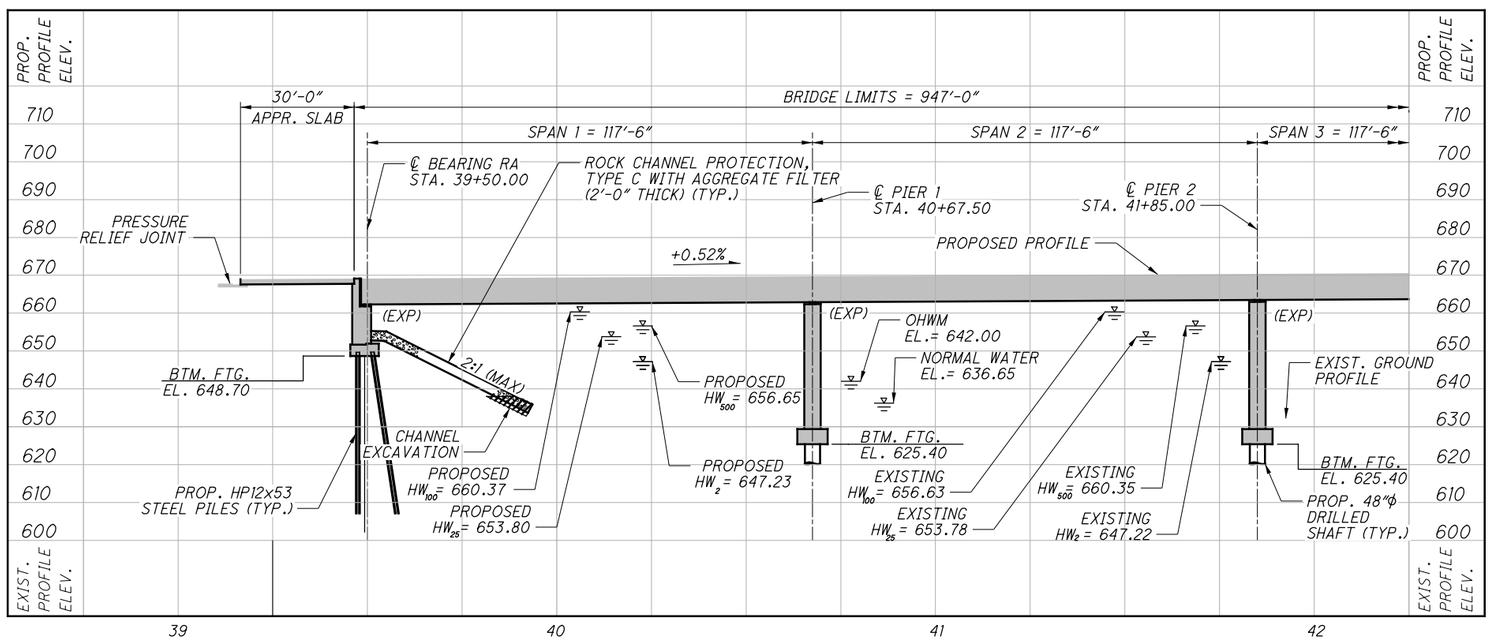
DRAINAGE AREA = 5650 SQ. MILES
Q (25) = 87780 CFS V (25) = 5.00 FT/S
Q (100) = 110100 CFS V (100) = 5.49 FT/S
STRUCTURE CLEARS THE 25 YEAR
DESIGN HW BY 8.48 FEET.

ESTIMATED PILE PAY LENGTH

REAR ABUTMENT (HP12X53) =
FORWARD ABUTMENT (HP12X53) =

ESTIMATED DRILLED SHAFT PAY LENGTH

48"ϕ =



PART PROFILE ALONG ℄ CONST. INDUSTRIAL DRIVE

PROPOSED STRUCTURE

TYPE: EIGHT SPAN COMPOSITE PRESTRESSED I-BEAM SUPERSTRUCTURE WITH REINFORCED CONCRETE DECK SUPPORTED BY REINFORCED CONCRETE ABUTMENTS AND PIERS WITH SLOPED EMBANKMENTS

SPANS: 117'-6", 117'-6", 117'-6", 117'-6", 117'-6", 117'-6", 117'-6", 117'-6"

ROADWAY: VARIABLE WIDTH 34'-0" MIN. TO 38'-10" MAX. TOE/TOE BARRIER WITH 6'-0" SIDEWALK (LEFT SIDE)

LOADING: HL-93 W/60 PSF FUTURE WEARING SURFACE

SKEW: NONE

APPROACH SLABS: 30'-0" LONG (AS-1-81)

ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT

COORDINATES: LATITUDE N 41° 24' 16"
LONGITUDE W 84° 06' 11"

Mannik Smith GROUP
1800 INDIAN WOOD CIRCLE
MAUMEE, OHIO 43537

DESIGNED KRH | DRAWN AMK | REVIEWED BWP | DATE 04/2014
CHECKED SCT | REVISED | STRUCTURE FILE NUMBER

HENRY COUNTY
STA. 39+46.50
STA. 48+93.50

SITE PLAN (ALT. C)
HEN-IND-0000
INDUSTRIAL DRIVE OVER MAUMEE RIVER

HEN-IND-0000
PID No. 22984

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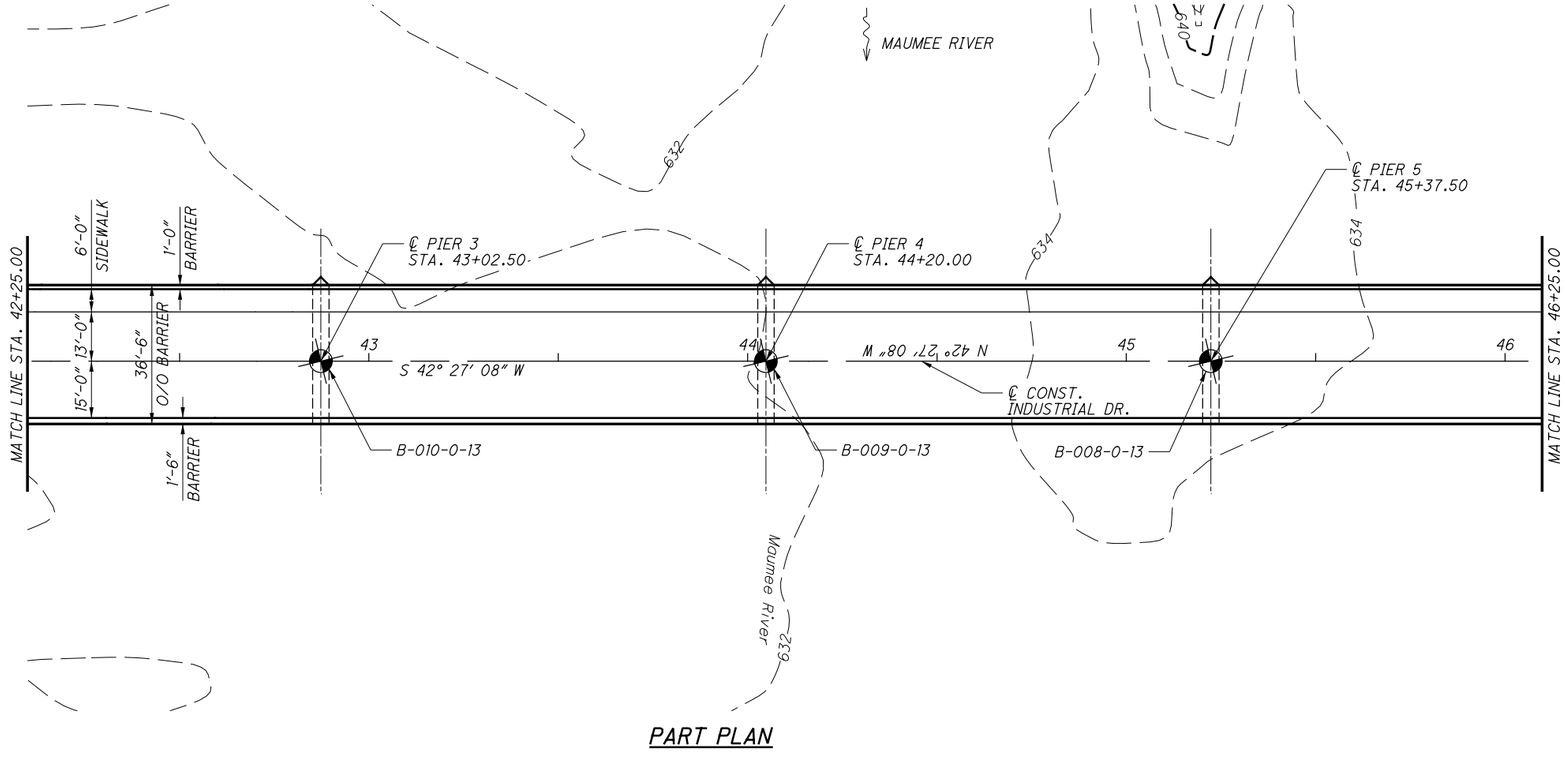
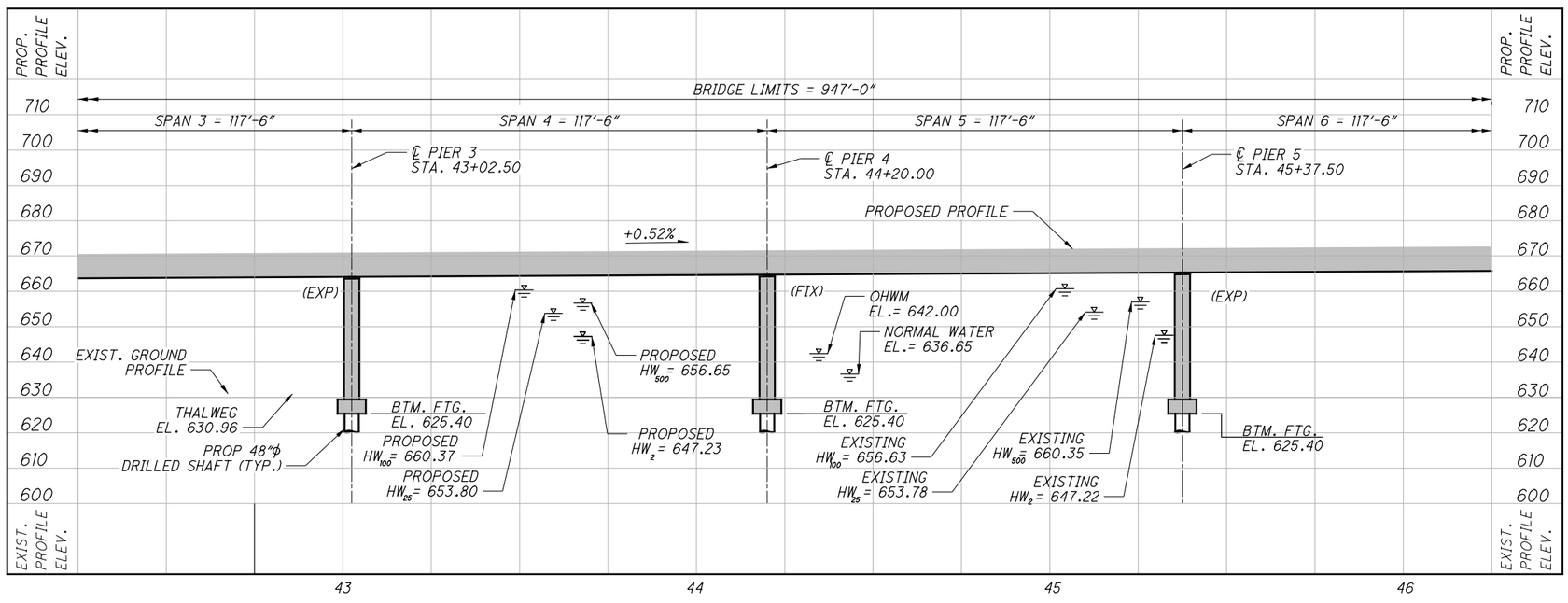


PART PLAN

NOTES

1. FOR PLAN NOTES AND LEGEND SEE SHEET XX/XX



PART PROFILE ALONG ℄ CONST. INDUSTRIAL DRIVE

Mannik Smith GROUP
1800 INDIAN WOOD CIRCLE
MAUMEE, OHIO 43537

DESIGNED	DRAWN	REVIEWED	DATE
KRH	AMK		
CHECKED	REVISED		STRUCTURE FILE NUMBER
SCT			

HENRY COUNTY
STA. 39+46.50
STA. 48+93.50

SITE PLAN (ALT. C)
HEN-IND-0000
INDUSTRIAL DRIVE OVER MAUMEE RIVER

HEN-IND-0000
PID No. 22984

56
59

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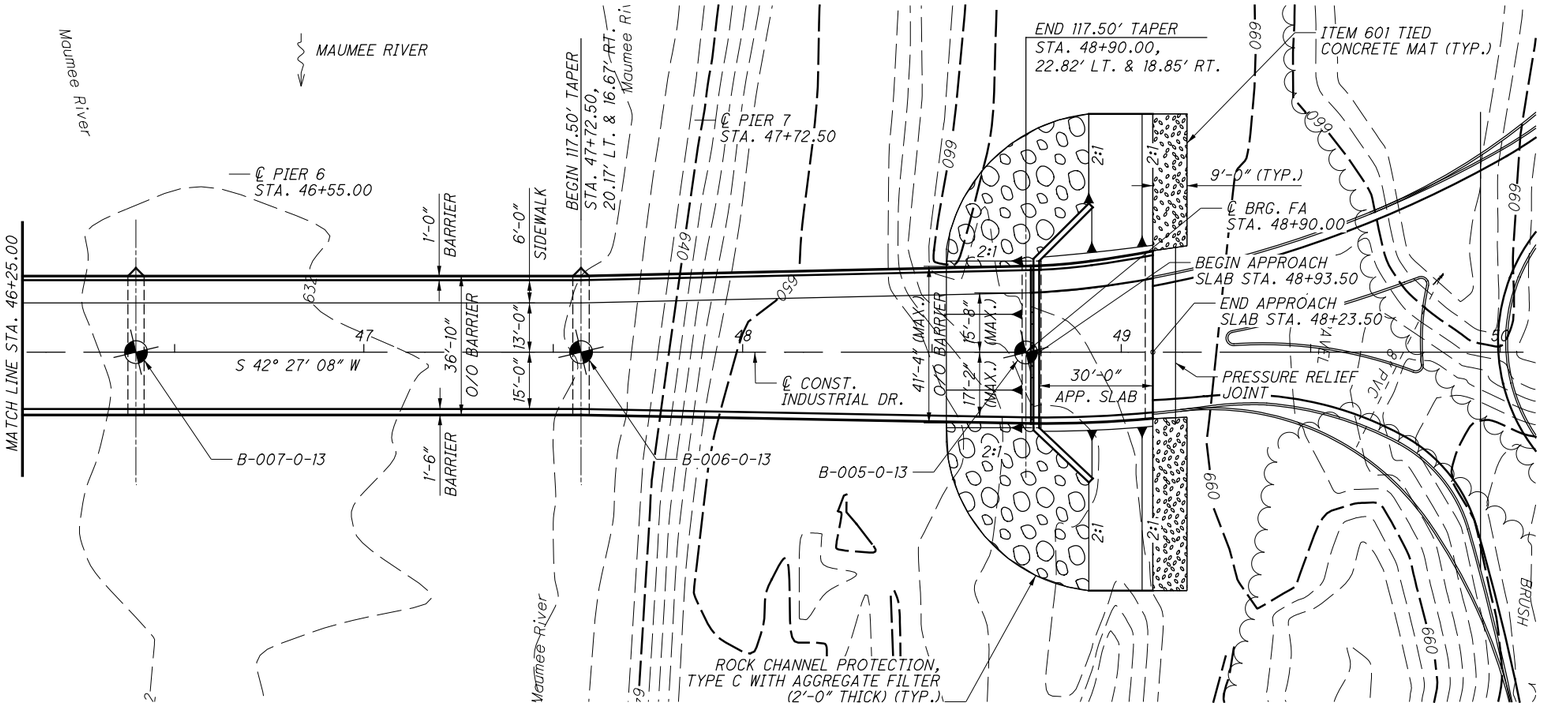
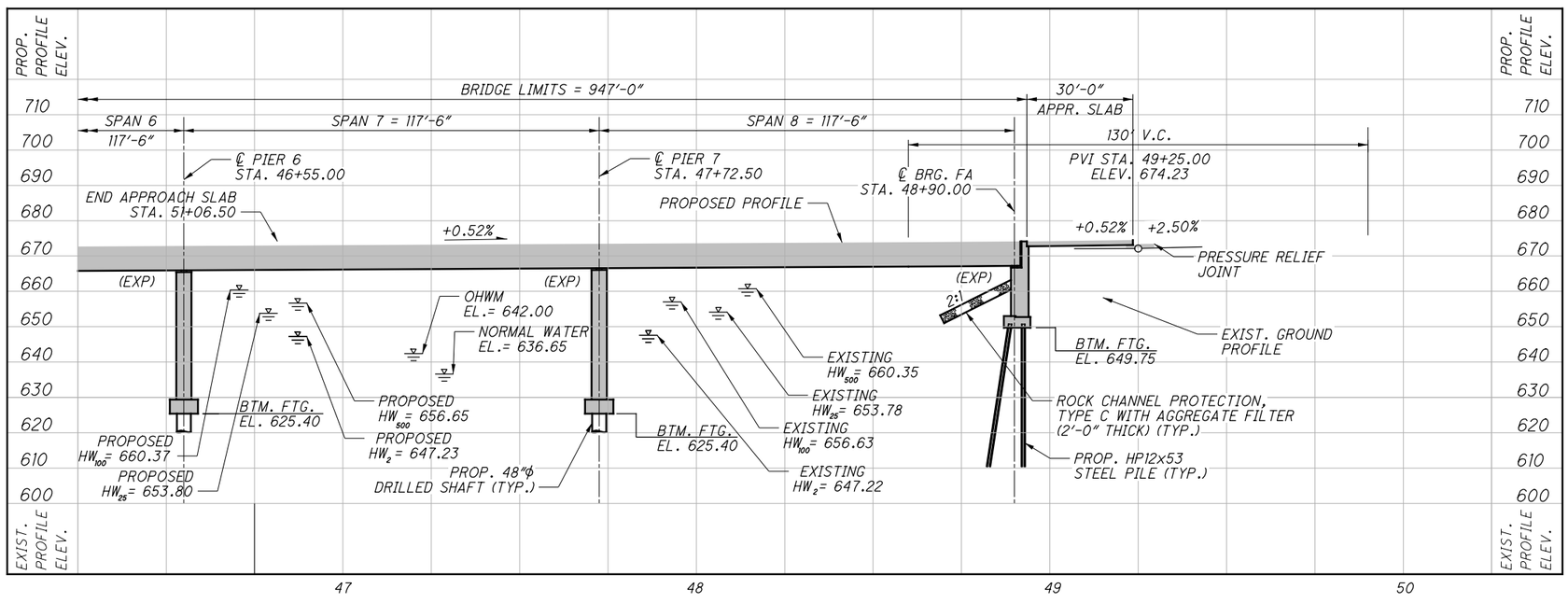


PART PLAN



PART PROFILE ALONG ℄ CONST. INDUSTRIAL DRIVE

NOTES

1. FOR PLAN NOTES AND LEGEND SEE SHEET XX/XX

Mannik Smith GROUP
1800 INDIAN WOOD CIRCLE
MAUMEE, OHIO 43537

DESIGNED	DRAWN	REVIEWED	DATE
KRH	AMK	BWP	04/2014
CHECKED	REVISED	STRUCTURE FILE NUMBER	
SCT			

HENRY COUNTY
STA. 39+46.50
STA. 48+93.50

SITE PLAN (ALT. C)
HEN-IND-0000
INDUSTRIAL DRIVE OVER MAUMEE RIVER

HEN-IND-0000
PID No. 22984

57
59

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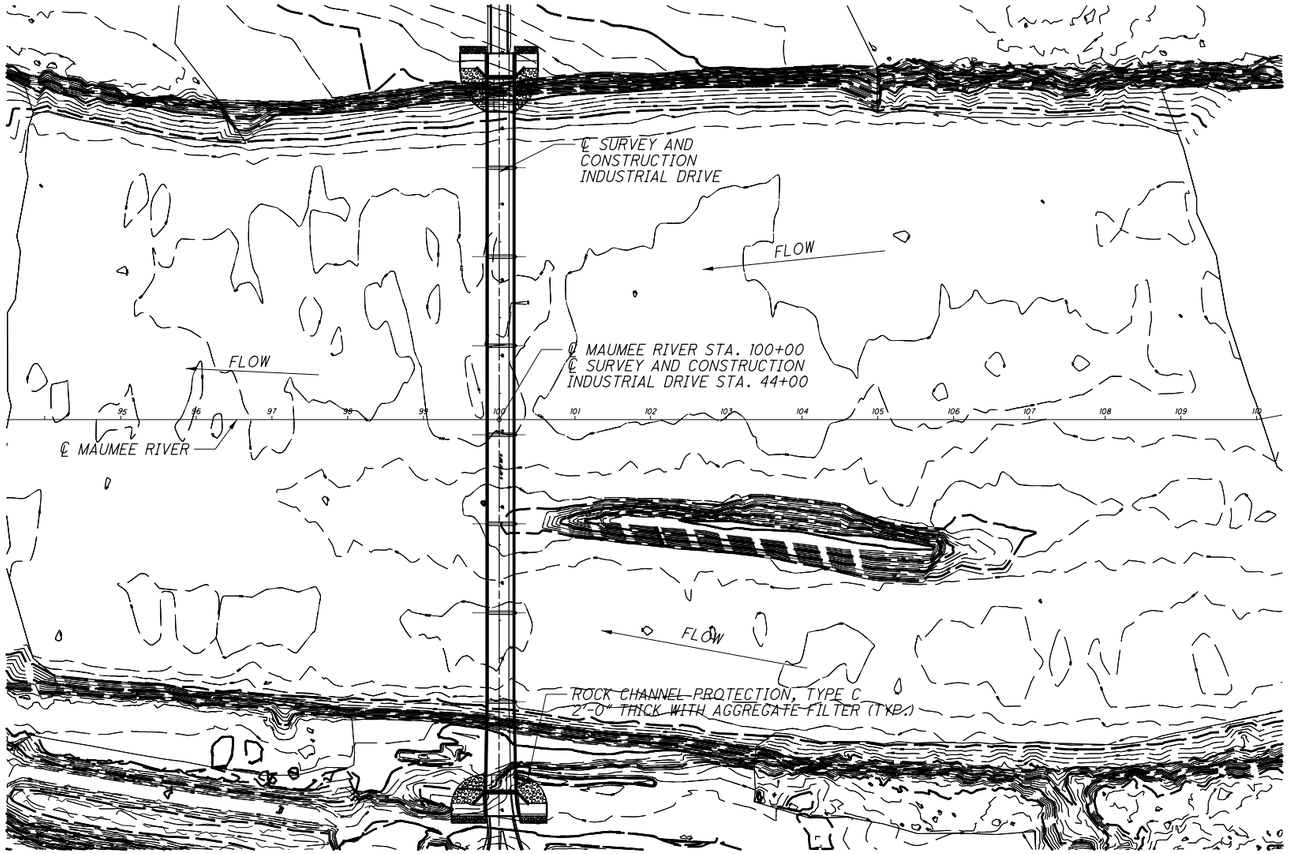

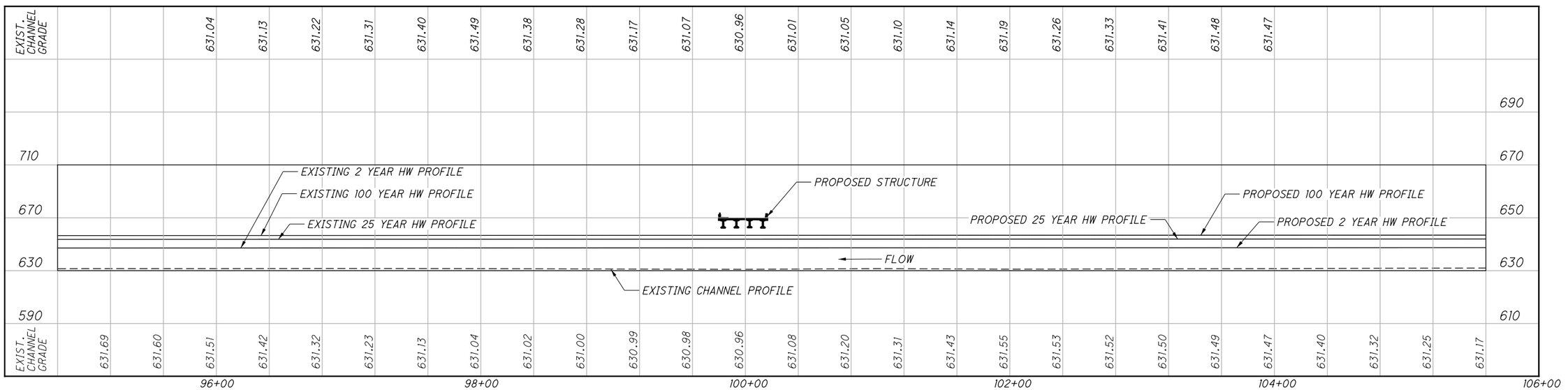

HYDRAULIC PROFILE ALONG ℄ OF CHANNEL

Mannik Smith GROUP
1800 INDIAN WOOD CIRCLE
MAUMEE, OHIO 43537

DESIGNED	DRAWN	REVIEWED	DATE
KRH	KRH	BWP	04/2014
CHECKED	REVISED	STRUCTURE FILE NUMBER	
SCT			

SUPPLEMENTAL SITE PLAN
HEN-INDUSTRIAL DRIVE-0000
INDUSTRIAL DRIVE OVER MAUMEE RIVER

HEN-IND-00.00
PID No. 22984

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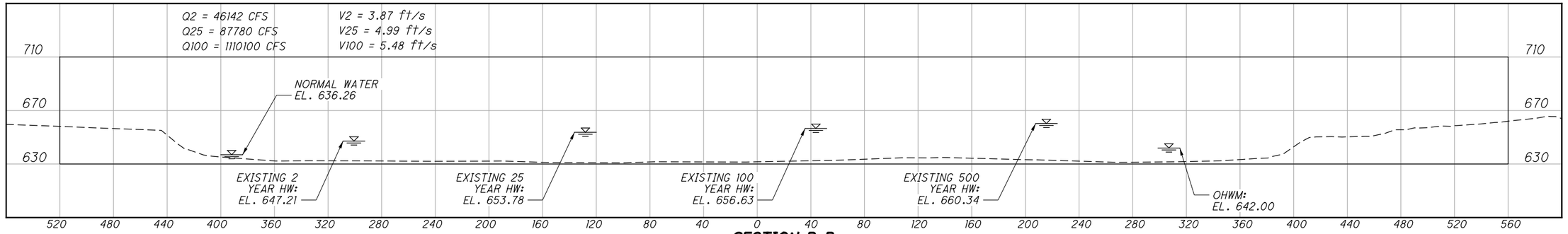
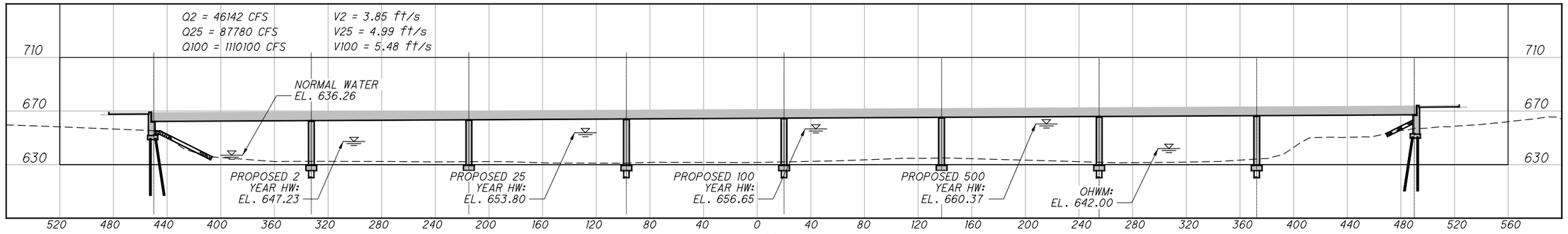


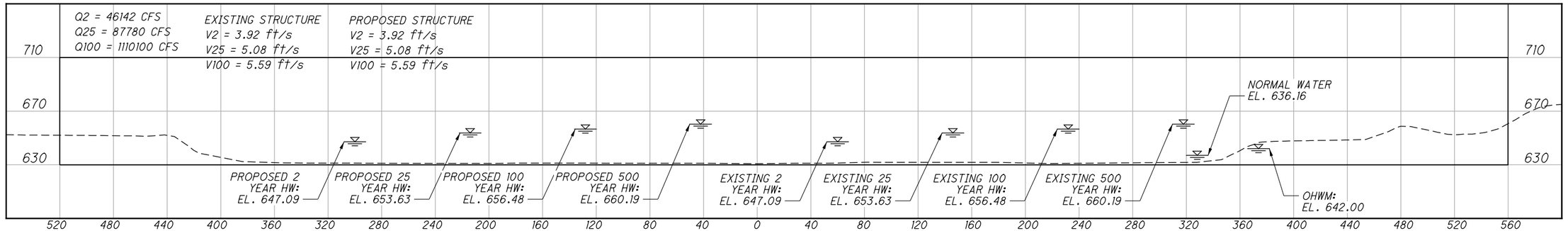
SECTION B-B

(STA. 100+00.00 EXISTING STRUCTURE)



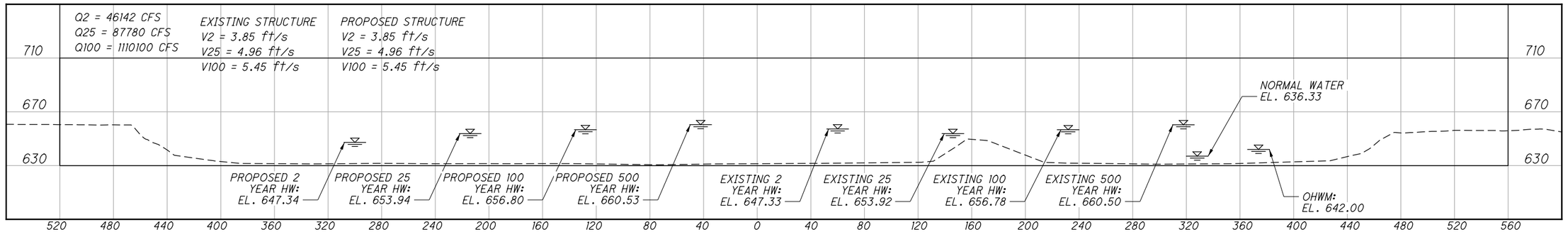
SECTION B-B

(STA. 100+00.00 PROPOSED STRUCTURE)



SECTION A-A

(STA. 95+00.00 DOWNSTREAM PROPOSED STRUCTURE)



SECTION C-C

(STA. 105+00.00 UPSTREAM PROPOSED STRUCTURE)

NOTE

500 YEAR FLOOD ELEVATION EVALUATED IN LIEU OF HISTORIC HIGH WATER MARK

Mannik Smith GROUP
1800 INDIAN WOOD CIRCLE
MAUMEE, OHIO 43537

DESIGNED	DRAWN	REVIEWED	DATE
KRH	KRH	BWP	04/2014
CHECKED	REVISED	STRUCTURE FILE NUMBER	
SCT			

SUPPLEMENTAL SITE PLAN

HEN-INDUSTRIAL DRIVE-0000
INDUSTRIAL DRIVE OVER MAUMEE RIVER

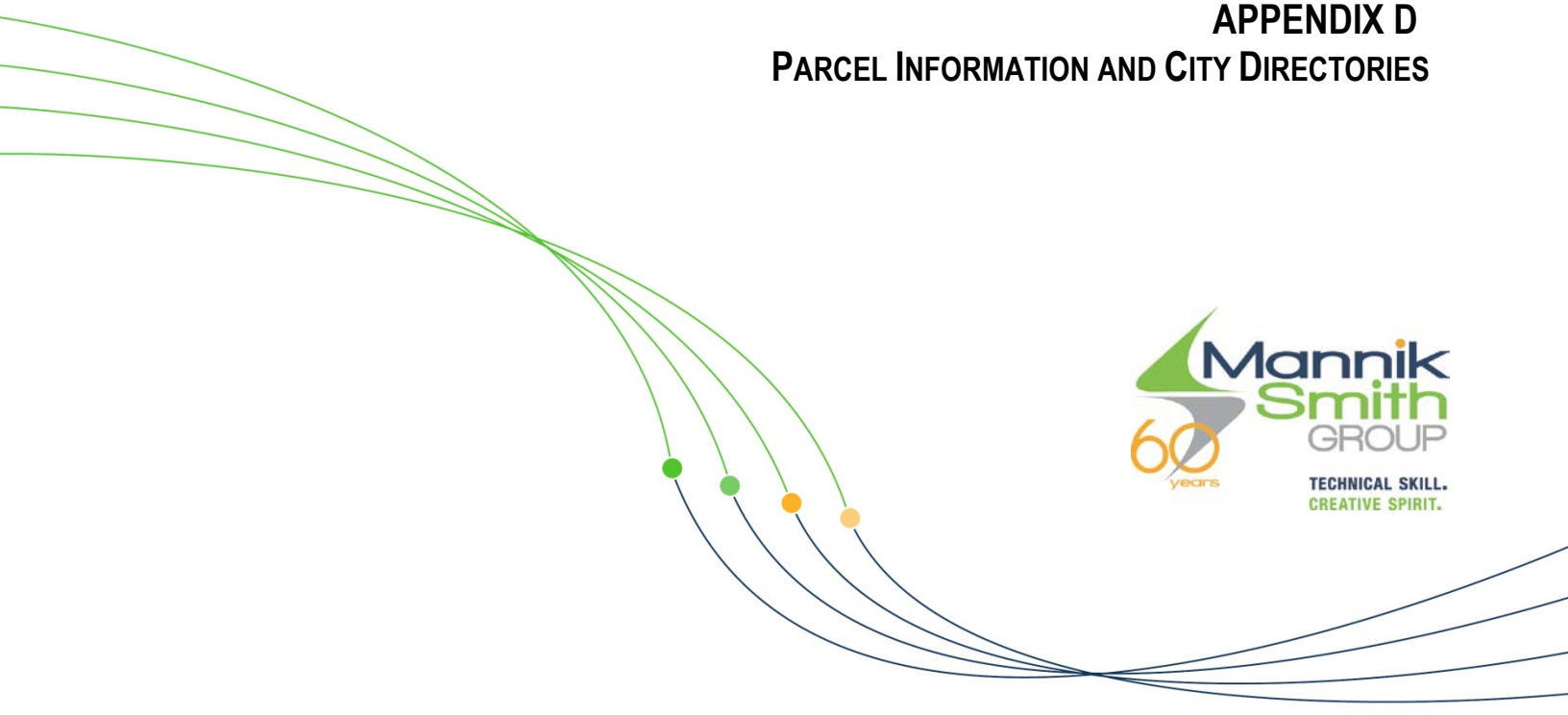
HEN-IND-00.00

PID No. 22984

7

W:\Projects\Projects F-J\H25300022\22984\structures\HENIND_0000\Sheets\IND_0000_SUPP_SITE002.DGN 9/10/2014 4:58:46 PM SValentin

APPENDIX D
PARCEL INFORMATION AND CITY DIRECTORIES



```
 LIBERTY TWP                          r e a l    p r o p e r t y    r e c o r d           HENRY    COUNTY, OHIO                        28-070060.0000     res
 NAPOLEON CORP              00200      10/31/14                          5:00:02           KEVIN GARRINGER    , AUDITOR
-------------------------------------- sale ------------------------------eff rate:---49.98-----55.88-----57.97--- 57.97------ a/r ------------------------------
2011 RETTIG, TODD A.                  12/29/00                          : tax year     2011      2012      2013               2013      2014      2015   c a m a
2012 RETTIG, TODD A.                  12/29/00 r-t-s :    007-05-07     : prop cls      500       500       500        500                                  500
2013 RETTIG, TODD A.                  12/29/00                          : acres      1.5500    1.5500    1.5500    1.5500
0000 RETTIG, TODD A.                  12/29/00 HOEFFEL ANNEXATION       : land100%     5460      5460      5460      5460                                       5450
                                               PT SW SW BET CANAL-RIVER : bldg100%
     12-484 STATE ROUTE 110              $6875                          : totl100%     5460t     5460t     5460t     5460t         t         t         t     5450t
     NAPOLEON    OH    43545                   0607327002 V  82P 675    :
-------------------------------------------------------------------------:tax value:-----------------------------------------------------------------------------
2014                                                                     : land 35%     1910      1910      1910      1910                                       1910
                                                                         : bldg 35%
                                                                         : totl 35%     1910t     1910t     1910t     1910t         t         t         t     1910t
                                                                         : hmstd35%
-------------------------------------------------------------------------: owner oc
2015                                                                     : hmstd rb
                                                                         : net tax     85.92     96.04    100.20    100.20
-------------------------------------------------------------------------------------------------------------------------------------------------------------
VACANT                                                                   :
10/94 LND ON 0660000 5/96 CHG ACRES PER DEED 6/01 PUT IN SM AC           :
-------------------------------------------------------------------------:
         2014                RE                                          :
05 reval - no chg                                                        :
-------------------------------------------------------------------------:
sale#    #p mm dd yy to/remarks     type/invalid?     sale$ co:land  co:bldg:
    766     12/29/00 RETTIG, TODD A.                  6875   19170       :
-------------------------------------------------------------------------:
 year     land      bldg      total     net tax                          :
 2010     1630                1630       77.24                          :
-------------------------------------------------------------------------:
                                                                         :ST RT 424
-------------------------------------------------------------------------------------------------------------------------------------------------------------
                                                 :          acres/ efectv      dpth actual efectv  extnd  influence         true
                                                 :          frntge frntge dpth fctr   rate   rate  value  factor(s)        value
                                                 : small acr   1.55                          3518   5450                     5450
                                                 :
                                                 :
                                                 :
                                                 :
                                                 :
                          PUB PAVED ST/RD        :
                          topo:  ROLLING         :
                          code              2870 :
--------------------------- --------------------:call back:    -    -          -    -      sign:     date:  3/07/05 lister:BG --------28-070060.0000-v020614
```

LIBERTY TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 28-070064.0000 res
NAPOLEON CORP 00200 10/31/14 5:00:02 KEVIN GARRINGER , AUDITOR

sale				eff rate:	49.98	55.88	57.97	57.97	a/r			
2011 RETTIG, TODD A., CUSTODIAN	12/29/00			tax year	2011	2012	2013	2013	2014	2015	c a m a	
2012 RETTIG, TODD A., CUSTODIAN	12/29/00			prop cls	500	500	500	500				500
2013 RETTIG, TODD A., CUSTODIAN	12/29/00			acres	1.3100	1.3100	1.3100	1.3100				
0000 RETTIG, TODD A., CUSTODIAN	12/29/00	PCL PT SE 1/4		land100%	4660	4660	4660	4660				4660
FOR KYLE D. RETTIG				bldg100%								
12-484 STATE ROUTE 110	$5625			totl100%	4660t	4660t	4660t	4660t	t	t	t	4660t
NAPOLEON OH 43545		0607401003 V 82P 680										
tax value:												
2014				land 35%	1630	1630	1630	1630				1630
				bldg 35%								
				totl 35%	1630t	1630t	1630t	1630t	t	t	t	1630t
				hmstd35%								
				owner oc								
2015		parent: 28-070064.0000		hmstd rb								
		orig tax year 2001		net tax	73.32	81.98	85.52	85.52				

VACANT
NEW PCL CREATED 7/01 LND NEVER TAXED,FND WHEN NEW SURVEY DONE

2014 RE
05 reval - no chg

sale#	#p	mm dd yy	to/remarks	type/invalid?	sale$	co:land	co:bldg
767		12/29/00	RETTIG, TODD A., CUSTODI		5625		

year	land	bldg	total	net tax
2010	1380		1380	65.40

ROUTE 424 (REAR)

	acres/ frntge	efectv frntge	dpth dpth	actual fctr	efectv rate	extnd value	influence factor(s)	true value
small acr	1.31				3555	4660		4660

PUB ELECTRIC
PUB PAVED ST/RD
topo: LEVEL
code 2870

call back: - - - - sign: date: 3/07/05 lister:BG --------28-070064.0000-v020614

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-070004.0100 agr
NAPOLEON CSD 00150 10/31/14 5:00:02 KEVIN GARRINGER , AUDITOR

		sale		eff rate:	48.86	55.58	57.67	57.67	a/r				
2011 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07		tax year	2011	2012	2013		2013	2014	2015	c a m a		
2012 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07 r-t-s : 007-05-07		prop cls	110	110	110	110				110		
2013 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07		acres	26.8200	26.8200	26.8200	26.8200						
0000 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07 PCL PT SE 1/4		land100%	84910	84910	84910	130370				130370		
	EX		bldg100%										
ONE CAMPBELL PLACE, MS 216			totl100%	84910t	84910t	84910t	130370t	t	t	t	130370t		
CAMDEN NJ 08103	0607476002 V 223P 926		cauv100%	29400	29400	29400	72940				72930		
		tax value:											
2014			land 35%	10290	10290	10290	25530				25530		
			bldg 35%										
			totl 35%	10290t	10290t	10290t	25530t	t	t	t	25530t		
			hmstd35%										
			owner oc										
2015	parent: 22-070004.0000		hmstd rb										
	orig tax year 2008		net tax	452.48	514.74	537.06	537.06						
			cauv sav	902.44	908.86	909.36	1014.10						

VACANT
6/08 S 26.82 FRM 04.0000, PUT UNDER CAUV,SOIL TYPE, CHG CLS

2014 RE

year	land	bldg	total	net tax
2010	4060		4060	187.88

ST RT 110 & CO RD 12

tab #		s o i l	acres	mkt/ac	market	au/ac	cauv
c 10	DYA	DIGBY LOAM L 0-2%	.0600	5,560	330	3,210	190
c 24	HKA	HASKINS F S LOAM FS	5.5380	5,360	29,680	2,960	16,390
c 26	HV	HOYTVILLE CLAY C 0-	.3440	5,950	2,050	3,870	1,330
c 38	ME	MERMILL LOAM L 0-2%	7.7180	6,740	52,020	4,270	32,960
c 40	MH	MILLGROVE LOAM L 0-	.1310	7,350	960	5,030	660
c 58	RFA	RIMER LOAMY F S LFS	6.2910	5,000	31,460	2,140	13,460
c 80	VAA	VAUGHNSVILLE LOAM L	.0340	5,070	170	2,430	80
w 410	DYA	DIGBY LOAM L 0-2%	.4750	3,900	1,850	2,210	1,050
w 412	FUA	FULTON S C L SICL 0	.2040	2,120	430	820	170
w 440	MH	MILLGROVE LOAM L 0-	1.0940	5,890	6,440	4,030	4,410
w 458	RFA	RIMER LOAMY F S LFS	1.8110	2,660	4,820	1,140	2,070
	RDW	ROADS/DITCHES/WASTE	3.1200	50	160	50	160
			26.8200		130,370 (100%)	72,930	
					45,630 (35%)	25,530	

PUB ELECTRIC
PUB PAVED ST/RD
topo: LEVEL
lot/hmsite% 200

cauv # 554

call back: - - - - sign: date: lister: --------22-070004.0100-v020614

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-180004.0000 ind
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

		sale	eff rate:	68.14	74.57	75.80	77.43	a/r				
2011 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07		tax year	2011	2012	2013	2014	2014	2015	2016	c a m a	
2012 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07 r-t-s : 007-05-18		prop cls	310	310	310	310				310	
2013 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07		acres	145.9700	145.9700	145.9700	145.9700					
2014 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07 PTS NW		land100%	1399860	1399860	1399860	1399860				1399850	
	EX		bldg100%									
P.O. BOX 391			totl100%	1399860t	1399860t	1399860t	1399860t	t	t	t	1399850t	
CAMDEN NEW JERSEY 08103 1799	0618201001 V 55P 853											
		tax value:										
2015			land 35%	489950	489950	489950	489950				489950	
			bldg 35%									
			totl 35%	489950t	489950t	489950t	489950t	t	t	t	489950t	
			hmstd35%									
		owner oc										
2016			hmstd rb									
			net tax	33383.10	36535.66	37136.88	37936.00					

VACANT
PRIMARY SOUP PLNT PRCL
6/08 S 11.97 TO 4.0100, 21.43 TO 4.0200,

2014 RE
05 reval - no chg

year	land	bldg	total	net tax
2011	489950		489950	33383.10

CO RD P-3

	acres/ frntge	efectv frntge	dpth	actual fctr	efectv rate	extnd value	influence factor(s)	true value
	45.00	PRIMARY		@	20000	900000		900000
	99.97	RESERVE		@	5000	499850		499850
	1.00	ROW						

PUB PAVED ST/RD
topo: LEVEL

call back: - - - - sign: date: 5/18/05 lister:SM --------22-180004.0000-v020614

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-180004.0100 agr
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

		sale		eff rate:	48.86	55.58	57.67	52.38	a/r			
2011 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07		tax year	2011	2012	2013	2014	2014	2015	2016	c a m a
2012 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07 r-t-s : 007-05-18		prop cls	110	110	110	110				110
2013 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07		acres	11.9700	11.9700	11.9700	11.9700				
2014 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07 PCL PT NE 1/4		land100%	46630	46630	46630	65430				65420
	EX		bldg100%								
ONE CAMPBELL PLACE, MS 216			totl100%	46630t	46630t	46630t	65430t	t	t	t	65420t
CAMDEN NJ 08103	0618201002 V 223P 926		cauv100%	15710	15710	15710	36260				36270
		tax value:									
2015			land 35%	5500	5500	5500	12690				12690
			bldg 35%								
			totl 35%	5500t	5500t	5500t	12690t	t	t	t	12690t
			hmstd35%								
		owner oc									
2016	parent: 22-180004.0000		hmstd rb								
	orig tax year 2008		net tax	241.84	275.12	287.06	603.00				
			cauv sav	440.34	440.58	564.72	485.16				

VACANT
6/08 S 11.97 AC FRM 04.0000,PUT UNDER CAUV,SOIL TYPE,CHG CLS

2014 RE

year	land	bldg	total	net tax
2011	5500		5500	241.84

COUNTY ROAD P3

tab #		s o i l	acres	mkt/ac	market	au/ac	cauv
c 10	DYA	DIGBY LOAM L 0-2%	3.3580	5,560	18,670	3,210	10,780
c 24	HKA	HASKINS F S LOAM FS	.2260	5,360	1,210	2,960	670
c 38	ME	MERMILL LOAM L 0-2%	.3080	6,740	2,080	4,270	1,320
c 40	MH	MILLGROVE LOAM L 0-	3.6900	7,350	27,120	5,030	18,560
c 48	OTB	OTTOKEE FINE SAND F	.3150	4,700	1,480	2,040	640
c 74	TDA	TEDROW LOAMY F S LF	3.5320	4,200	14,830	1,210	4,270
972	RDW	ROADS/DITCHES/WASTE	.5410	50	30	50	30
			11.9700		65,420 (100%)	36,270	cauv # 554
					22,900 (35%)	12,690	

PUB ELECTRIC
PUB PAVED ST/RD

topo: LEVEL
lot/hmsite% 200

call back: - - - - sign: date: lister: --------22-180004.0100-v020614

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-070004.0000 ind
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

		sale		eff rate:	68.14	74.57	75.80	77.43	a/r			
2011 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07		tax year	2011	2012	2013	2014	2014	2015	2016	c a m a	
2012 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07 r-t-s : 007-05-07		prop cls	310	310	310	310					310
2013 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07		acres	25.0900	25.0900	25.0900	25.0900					
2014 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07 SECORSWFL-PTSEFLNOF		land100%	501800	501800	501800	501800					501800
	EX HWY457-10ASWCORSEFLSOFHWY		bldg100%									
P O BOX 391			totl100%	501800t	501800t	501800t	501800t	t	t	t		501800t
CAMDEN NJ 08103 1799	0607476001 V 55P 853											
		tax value:										
2015			land 35%	175630	175630	175630	175630					175630
			bldg 35%									
			totl 35%	175630t	175630t	175630t	175630t	t	t	t		175630t
			hmstd35%									
			owner oc									
2016			hmstd rb									
			net tax	11966.68	13096.76	13312.28	13598.74					

VACANT
6/08 S 26.82 TP 04.0100 5/11 CNG VALUE

2014 RE
05 reval - no chg

year	land	bldg	total	net tax
2011	175630		175630	11966.68

ST RT 110 & TWP RD 12

	acres/ frntge	efectv frntge	dpth fctr	actual rate	efectv rate	extnd value	influence factor(s)	true value
	25.09	PRIMARY	@	20000	501800			501800

PUB PAVED ST/RD
topo: ROLLING

call back: - - - - sign: date: 5/11/11 lister: --------22-070004.0000-v020614

```
 HARRISON TWP                          r e a l   p r o p e r t y   r e c o r d          HENRY    COUNTY, OHIO                          22-180032.0000     ind
 NAPOLEON CSD              00150       1/19/15                          5:00:02          KEVIN GARRINGER     , AUDITOR
------------------------------------ sale ------------------------------eff rate:---48.86-----74.57-----75.80---- 77.43------ a/r ------------------------------
2011 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99                          : tax year     2011      2012      2013      2014      2014      2015      2016   c a m a
2012 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99 r-t-s :    007-05-18     : prop cls      110       310       310       310                                      310
2013 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99                          : acres     32.6400   32.6400   32.6400   32.6400
2014 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99 PT SE SE EX RY           : land100%   138910    138910    138910    163200                                  163200
                                           EX                          : bldg100%                       27000     27000                                   27000
     P O BOX 391                                                       : totl100%   138910t   138910t   165910t   190200t         t         t         t   190200t
     CAMDEN NJ 08103 1799                     0618400010 V  55P 853    : cauv100%    50140    163200    163200
-------------------------------------------------------------------------:tax value:-------------------------------------------------------------------------
2015                                                                   : land 35%    17550     57120     57120     57120                                   57120
                                                                       : bldg 35%                        9450      9450                                    9450
                                                                       : totl 35%    17550t    57120t    66570t    66570t         t         t         t    66570t
                                                                       : hmstd35%
-------------------------------------------------------------------------: owner oc
2016                                                                   : hmstd rb
                                                                       : net tax    771.74   4259.44   5045.82   5154.40
                                                                       : recoup              3947.90
------------------------------------------------------------------------------------------------------------------------------------------------------------------
9/12 NOW SOLAR FIELD OUT OF CAUV-RECOUP 6/13 ADD FENCING 4 SOLAR FIELD        :
-------------------------------------------------------------------------------:
          2014                RE                                              :
05 reval - rmv silo & flat barn, chg property class                           :
-------------------------------------------------------------------------------:
-------------------------------------------------------------------------------:
 year     land      bldg      total     net tax                                :
 2011     17550               17550      771.74                                :
-------------------------------------------------------------------------------:
                                                                              :CO RD 12
------------------------------------------------------------------------------------------------------------------------------------------------------------------
                                                  :                    DixHt        unit       blt/Renov replace phy fnc    true
                                                  :  bldg type  SHB+consFtxFt area   rate  grade     cond  value  dpr dpr   value
                                                  : 2 FENCING                 3600   7.50         2012A     27000           27000
                                                  : ------------------------------------------------------------------------------------------------------------
                                                  :          acres/ efectv      dpth actual efectv  extnd  influence         true
                                                  :          frntge frntge dpth fctr   rate   rate  value  factor(s)        value
                                                  :           32.64  RESERVE           @      5000 163200                  163200
                          PUB PAVED ST/RD         : ------------------------------------------------------------------------------
                          topo:  LEVEL            : tab #       s o i l                   acres   mkt/ac   market   au/ac    cauv
---------------------------- ----------------------call back:    -    -           -    -     sign:     date:  6/13/13 lister:LG --------22-180032.0000-v020614
```

```
 HARRISON TWP                          r e a l   p r o p e r t y   r e c o r d          HENRY    COUNTY, OHIO                          22-180010.0000     ind
 NAPOLEON CSD              00150       1/19/15                          5:00:02          KEVIN GARRINGER     , AUDITOR
------------------------------------- sale ---------------------------eff rate:---68.14-----74.57-----75.80---- 77.43------ a/r ------------------------------
2011 CAMPBELL SOUP SUPPLY CO., LLC                                  : tax year     2011      2012      2013      2014      2014      2015      2016   c a m a
2012 CAMPBELL SOUP SUPPLY CO., LLC           r-t-s :    007-05-17    : prop cls      310       310       310       310                                      310
2013 CAMPBELL SOUP SUPPLY CO., LLC                                  : acres      8.3500    8.3500    8.3500    8.3500
2014 CAMPBELL SOUP SUPPLY CO., LLC           PCL SE AND N 1/2        : land100%    83510     83510     83510     83510                                    83500
                                        EX                          : bldg100%
     P O BOX 391                                                    : totl100%    83510t    83510t    83510t    83510t         t         t         t    83500t
     CAMDEN   NEW JERSEY  08103-1799         0618176002 V  55P 853   :
-------------------------------------------------------------------:tax value:-------------------------------------------------------------------------------
2015                                                                : land 35%    29230     29230     29230     29230                                    29230
                                                                    : bldg 35%
                                                                    : totl 35%    29230t    29230t    29230t    29230t         t         t         t    29230t
                                                                    : hmstd35%
-------------------------------------------------------------------: owner oc
2016                                         parent:  22-170026.0000  : hmstd rb
                                             orig tax year      2001  : net tax   1991.60   2179.70   2215.56   2263.24
------------------------------------------------------------------------------------------------------------------------------------------------------
VACANT                                                                  :
7/01 CHGED PCL # BECAUSE ITS IN A DIFFERENT SECTION(WAS IN 17 NOW 18)   :
-------------------------------------------------------------------------:
          2014                RE                                        :
-------------------------------------------------------------------------:
-------------------------------------------------------------------------:
 year     land      bldg      total     net tax                          :
 2011     29230               29230     1991.60                          :
-------------------------------------------------------------------------:
                                                                        :
------------------------------------------------------------------------------------------------------------------------------------------------------
                                                  :          acres/ efectv      dpth actual efectv  extnd  influence         true
                                                  :          frntge frntge dpth fctr   rate   rate  value  factor(s)        value
                                                  :            8.35  SECONDARY         @     10000  83500                  83500
----------------------------  ---------------------call back:   -    -           -    -      sign:     date:  5/18/05 lister:SM --------22-180010.0000-v020614
```

```
 HARRISON TWP                          r e a l   p r o p e r t y   r e c o r d          HENRY    COUNTY, OHIO                          22-180009.0000     ind
 NAPOLEON CSD              00150       1/19/15                          5:00:02          KEVIN GARRINGER     , AUDITOR
------------------------------------ sale ---------------------------eff rate:---68.14-----74.57-----75.80---- 77.43------ a/r ----------------------------
2011 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99                        : tax year     2011      2012      2013      2014      2014      2015      2016   c a m a
2012 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99 r-t-s :    007-05-18   : prop cls      310       310       310       310                                     310
2013 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99                        : acres       .6800     .6800     .6800     .6800
2014 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99 PCL NW 1/4             : land100%     6800      6800      6800      6800                                    6800
                                          EX                         : bldg100%
     P O BOX 391                                                     : totl100%     6800t     6800t     6800t     6800t         t         t         t     6800t
     CAMDEN NJ 08103 1799                     0618176003 V  55P 853   :
-------------------------------------------------------------------:tax value:-------------------------------------------------------------------------
2015                                                                : land 35%     2380      2380      2380      2380                                    2380
                                                                    : bldg 35%
                                                                    : totl 35%     2380t     2380t     2380t     2380t         t         t         t     2380t
                                                                    : hmstd35%
-------------------------------------------------------------------: owner oc
2016                                                                : hmstd rb
                                                                    : net tax    162.16    177.48    180.40    184.28
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VACANT                                                                  :
-----------------------------------------------------------------------:
          2014               RE                                         :
-----------------------------------------------------------------------:
-----------------------------------------------------------------------:
 year     land      bldg      total     net tax                         :
 2011      2380                2380      162.16                          :
-----------------------------------------------------------------------:
                                                                        :
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                                                  :          acres/ efectv      dpth actual efectv  extnd  influence         true
                                                  :          frntge frntge dpth fctr   rate   rate  value  factor(s)        value
                                                  :             .68   SECONDARY        @     10000   6800                    6800
                                                  :
                                                  :
                                                  :
                                                  :
                                                  :
                          PUB PAVED ST/RD         :
                          topo:  LEVEL            :
---------------------------- ---------------------call back:    -    -           -    -      sign:     date:  2/18/05 lister:SM --------22-180009.0000-v020614
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HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-170016.0000 ind
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

		sale	eff rate:	68.14	74.57	75.80	77.43	a/r				
2011 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99		tax year	2011	2012	2013	2014	2014	2015	2016	c a m a	
2012 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99 r-t-s : 007-05-17		prop cls	310	310	310	310					310
2013 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99		acres	.4100	.4100	.4100	.4100					
2014 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99 PCL NW COR SW SW		land100%	2060	2060	2060	2060					2050
	EX 90'X200'		bldg100%									
P O BOX 391			totl100%	2060t	2060t	2060t	2060t	t	t	t		2050t
CAMDEN NJ 08103 1799	0617300002 V 55P 853											
		tax value:										
2015			land 35%	720	720	720	720					720
			bldg 35%									
			totl 35%	720t	720t	720t	720t	t	t	t		720t
			hmstd35%									
		owner oc										
2016			hmstd rb									
			net tax	49.06	53.68	54.58	55.76					

VACANT
5/97 RMV HSE,SHED, CHG LND

2014 RE
05 reval - no chg

year	land	bldg	total	net tax
2011	720		720	49.06

CO RD 12

acres/ frntge	efectv frntge	dpth	dpth fctr	actual rate	efectv rate	extnd value	influence factor(s)	true value
.41	RESERVE			@	5000	2050		2050

PUB ELECTRIC
PUB PAVED ST/RD
topo: LEVEL

call back: - - - - sign: date: 5/18/05 lister:SM --------22-170016.0000-v020614

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-170010.0000 agr
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

		sale		eff rate:	48.86	55.58	57.67	52.38	a/r			
2011 CAMPBELL SOUP SUPPLY COMPANY	12/06/10		tax year	2011	2012	2013	2014	2014	2015	2016	c a m a
2012 CAMPBELL SOUP SUPPLY COMPANY	12/06/10 r-t-s : 007-05-17		prop cls	110	110	110	110				110
2013 CAMPBELL SOUP SUPPLY COMPANY	12/06/10		acres	60.0000	60.0000	60.0000	60.0000				
2014 CAMPBELL SOUP SUPPLY COMPANY	12/06/10 N 60A NE		land100%	233570	233570	233570	329540				329550
1 CAMPBELL PLACE, TAX DEPT	WAR		bldg100%								
MAIL STOP 37	$1445000		totl100%	233570t	233570t	233570t	329540t	t	t	t	329550t
CAMDEN NJ 08103-1701	0617200001 V 256P 749		cauv100%	77200	77200	77200	179970				179980
		tax value:									
2015			land 35%	27020	27020	27020	62990				62990
			bldg 35%								
			totl 35%	27020t	27020t	27020t	62990t	t	t	t	62990t
			hmstd35%								
		owner oc									
2016			hmstd rb								
			net tax	1188.16	1351.64	1410.22	2993.16				
			cauv sav	2238.66	2239.84	2856.50	2487.58				

VACANT

2014	RE

05 reval - no chg

sale#	#p	mm	dd	yy	to/remarks	type/invalid?	sale$	co:land	co:bldg
491	2	12	06	10	CAMPBELL SOUP SUPPLY COMWAR		1445000	170910	

year	land	bldg	total	net tax
2011	27020		27020	1188.16

RD P-3

tab #		s o i l	acres	mkt/ac	market	au/ac	cauv
c 58	RFA	RIMER LOAMY F S LFS	10.9000	5,000	54,500	2,140	23,330
c 62	SDB	SEWARD LOAMY FS LF	12.5000	4,410	55,130	1,380	17,250
c 38	ME	MERMILL LOAM L 0-2%	32.6000	6,740	219,720	4,270	139,200
972	RDW	ROADS/DITCHES/WASTE	4.0000	50	200	50	200
			60.0000		329,550 (100%)		179,980
					115,340 (35%)		62,990

cauv # 554

PUB PAVED ST/RD
topo: LEVEL
lot/hmsite% 200

call back: - - - - sign: date: 12/10/04 lister:BG --------22-170010.0000-v020614

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-170008.0000 agr
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

sale			eff rate:	48.86	55.58	57.67	52.38	a/r			
2011 CAMPBELL SOUP COMPANY, LLC	12/06/10		tax year	2011	2012	2013	2014	2014	2015	2016	c a m a
2012 CAMPBELL SOUP COMPANY, LLC	12/06/10 r-t-s : 007-05-17		prop cls	110	110	110	110				110
2013 CAMPBELL SOUP COMPANY, LLC	12/06/10		acres	118.4200	118.4200	118.4200	118.4200				
2014 CAMPBELL SOUP COMPANY, LLC	12/06/10 W 1/2 NW AND NE NW		land100%	464110	464110	464110	657340				657350
1 CAMPBELL PLACE, TAX DEPT	WAR		bldg100%								
MAIL STOP 37	$1445000		totl100%	464110t	464110t	464110t	657340t	t	t	t	657350t
CAMDEN NJ 08103-1701	0617101001 V 256P 749		cauv100%	164460	164460	164460	378540				378530
		tax value:									
2015			land 35%	57560	57560	57560	132490				132490
			bldg 35%								
			totl 35%	57560t	57560t	57560t	132490t	t	t	t	132490t
			hmstd35%								
			owner oc								
2016			hmstd rb								
			net tax	2531.10	2879.34	3004.18	6295.68				
			cauv sav	4417.20	4418.14	5473.92	4636.82				

VACANT
4/08 S 2.03 & ALL BLDGS TO 08.0100 12/10 CHG TO 118.42AC PER DEED

2014 RE
received mailer 2003
05 reval - chg shed to garage; chg phy on all 3 grain bins;
chg fnc on crib/gnry & flat barn

sale#	#p	mm dd yy	to/remarks	type/invalid?	sale$	co:land	co:bldg
491	2	12/06/10	CAMPBELL SOUP COMPANY, LWAR		1445000	339140	

year	land	bldg	total	net tax
2011	57560		57560	2531.10

COUNTY ROAD P3

tab #		s o i l	acres	mkt/ac	market	au/ac	cauv
c 48	OTB	OTTOKEE FINE SAND F	6.5000	4,700	30,550	2,040	13,260
c 38	ME	MERMILL LOAM L 0-2%	23.5000	6,740	158,390	4,270	100,350
c 24	HKA	HASKINS F S LOAM FS	13.5000	5,360	72,360	2,960	39,960
c 26	HV	HOYTVILLE CLAY C 0-	24.7000	5,950	146,970	3,870	95,590
c 12	FUA	FULTON S C L SICL 0	2.8000	4,700	13,160	1,820	5,100
c 58	RFA	RIMER LOAMY F S LFS	25.8200	5,000	129,100	2,140	55,260
c 28	KFA	KIBBIE F S LOAM FSL	13.4000	6,250	83,750	3,930	52,660
c 4	CN	COLWOOD LOAM L 0-2%	3.2000	7,130	22,820	5,030	16,100
972	RDW	ROADS/DITCHES/WASTE	5.0000	50	250	50	250
			118.4200		657,350 (100%)	378,530	cauv # 554
					230,070 (35%)	132,490	

PUB ELECTRIC
PRIV GAS
PUB PAVED ST/RD
topo: LEVEL

lot/hmsite% 200

call back: L-1357-R - - sign: O date: 12/10/04 lister:BG --------22-170008.0000-v020614

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-090002.0000 agr
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

		sale	eff rate:	48.86	55.58	57.67	52.38	a/r				
2011 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99		tax year	2011	2012	2013	2014	2014	2015	2016	c a m a	
2012 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99 r-t-s : 007-05-09		prop cls	110	110	110	110					110
2013 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99		acres	117.6600	117.6600	117.6600	117.6600					
2014 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99 SW FL		land100%	444910	444910	444910	637830					637840
	EX		bldg100%									
P O BOX 391			totl100%	444910t	444910t	444910t	637830t	t	t	t		637840t
CAMDEN NJ 08103 1799	0609300001 V 55P 853		cauv100%	145770	145770	145770	341570					341560
		tax value:										
2015			land 35%	51020	51020	51020	119550					119550
			bldg 35%									
			totl 35%	51020t	51020t	51020t	119550t	t	t	t		119550t
			hmstd35%									
			owner oc									
2016			hmstd rb									
			net tax	2243.52	2552.18	2662.86	5680.80					
			cauv sav	4421.38	4423.72	5464.50	4927.16					

VACANT

2014	RE
05 reval - no chg	

year	land	bldg	total	net tax
2011	51020		51020	2243.52

ST RT 110

PUB PAVED ST/RD
topo: LEVEL
lot/hmsite% 200

tab #		s o i l	acres	mkt/ac	market	au/ac	cauv
c 38	ME	MERMILL LOAM L 0-2%	9.1000	6,740	61,330	4,270	38,860
c 76	TO	TOLEDO S C LOAM SIC	55.0000	5,730	315,150	3,360	184,800
c 12	FUA	FULTON S C L SICL 0	3.0000	4,700	14,100	1,820	5,460
c 24	HKA	HASKINS F S LOAM FS	8.1000	5,360	43,420	2,960	23,980
c 48	OTB	OTTOKEE FINE SAND F	9.1000	4,700	42,770	2,040	18,560
c 72	SBB2	ST CLAIR S C L(ME)	14.3000	4,410	63,060	870	12,440
c 58	RFA	RIMER LOAMY F S LFS	4.6000	5,000	23,000	2,140	9,840
c 26	HV	HOYTVILLE CLAY C 0-	12.0000	5,950	71,400	3,870	46,440
c 62	SDB	SEWARD LOAMY FS LF	.8000	4,410	3,530	1,380	1,100
972	RDW	ROADS/DITCHES/WASTE	1.6600	50	80	50	80
			117.6600		637,840 (100%)		341,560
					223,240 (35%)		119,550

cauv # 554

call back: - - - - sign: date: 12/08/04 lister:BG --------22-090002.0000-v020614

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-080006.0000 agr
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

2011 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99		sale	eff rate:	48.86	55.58	57.67	52.38	a/r		
2012 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99 r-t-s : 007-05-08		prop cls	110	110	110	110				c a m a
2013 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99		acres	133.8100	133.8100	133.8100	133.8100				110
2014 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99 SE FL		land100%	482910	482910	482910	687200				687190
	EX		bldg100%								
P O BOX 391			totl100%	482910t	482910t	482910t	687200t	t	t	t	687190t
CAMDEN NJ 08103 1799	0608400001 V 55P 853		cauv100%	127690	127690	127690	320630				320640
		tax value:									
2015			land 35%	44690	44690	44690	112220				112220
			bldg 35%								
			totl 35%	44690t	44690t	44690t	112220t	t	t	t	112220t
			hmstd35%								
			owner oc								
2016			hmstd rb								
			net tax	1965.16	2235.54	2332.46	5332.50				
			cauv sav	5005.08	5007.72	6489.06	6096.56				

VACANT

2014 RE
05 reval - no chg

year	land	bldg	total	net tax
2011	44690		44690	1965.16

ST RT 110

PUB PAVED ST/RD
topo: LEVEL
lot/hmsite% 200

tab #		soil	acres	mkt/ac	market	au/ac	cauv
c 60	RS	ROSS LOAM L 0-2%	11.0000	6,760	74,360	4,350	47,850
c 22	HDA	HANEY LOAM L 0-2%	3.2000	5,440	17,410	2,640	8,450
c 68	SO	SLOAN S C LOAM SICL	11.2000	5,730	64,180	3,420	38,300
c 12	FUA	FULTON S C L SICL 0	9.5000	4,700	44,650	1,820	17,290
c 28	KFA	KIBBIE F S LOAM FSL	9.7000	6,250	60,630	3,930	38,120
c 58	RFA	RIMER LOAMY F S LFS	3.3000	5,000	16,500	2,140	7,060
c 62	SDB	SEWARD LOAMY FS LF	52.0100	4,410	229,360	1,380	71,770
c 76	TO	TOLEDO S C LOAM SIC	10.2000	5,730	58,450	3,360	34,270
c 72	SBB2	ST CLAIR S C L(ME)	2.5000	4,410	11,030	870	2,180
c 34	LWB2	LUCAS S C LOAM(ME)	7.3000	4,190	30,590	990	7,230
c 42	NTA	NAPPANEE S C LOAM S	3.3000	5,140	16,960	2,150	7,100
c 26	HV	HOYTVILLE CLAY C 0-	10.6000	5,950	63,070	3,870	41,020
			133.8100		687,190 (100%)		320,640
					240,520 (35%)		112,220

cauv # 554

call back: - - - - sign: date: 12/08/04 lister:BG --------22-080006.0000-v020614

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 HARRISON TWP                          r e a l   p r o p e r t y   r e c o r d          HENRY    COUNTY, OHIO                          22-080004.0000     agr
 NAPOLEON CSD              00150       1/19/15                          5:00:02          KEVIN GARRINGER     , AUDITOR
------------------------------------ sale ---------------------------eff rate:---48.86-----55.58-----57.67---- 52.38------ a/r ----------------------------
2011 CAMPBELL SOUP SUPPLY CO, LLC     7/30/99                        : tax year     2011      2012      2013      2014      2014      2015      2016   c a m a
2012 CAMPBELL SOUP SUPPLY CO, LLC     7/30/99 r-t-s :    007-05-08   : prop cls      110       110       110       110                                     110
2013 CAMPBELL SOUP SUPPLY CO, LLC     7/30/99                        : acres     86.4900   86.4900   86.4900   86.4900
2014 CAMPBELL SOUP SUPPLY CO, LLC     7/30/99 SW FL S OF ST RD       : land100%   324230    324230    324230    460400                                  460390
                                          EX                         : bldg100%
     P O BOX 391                                                     : totl100%   324230t   324230t   324230t   460400t         t         t         t   460390t
     CAMDEN  NJ 08103 1799                   0608351001 V  55P 853   : cauv100%   105170    105170    105170    239830                                  239840
-------------------------------------------------------------------:tax value:-------------------------------------------------------------------------
2015                                                                : land 35%    36810     36810     36810     83940                                   83940
                                                                    : bldg 35%
                                                                    : totl 35%    36810t    36810t    36810t    83940t         t         t         t    83940t
                                                                    : hmstd35%
-------------------------------------------------------------------: owner oc
2016                                                                : hmstd rb
                                                                    : net tax   1618.64   1841.34   1921.20   3988.68
                                                                    : cauv sav  3168.36   3207.52   4001.56   3668.38
------------------------------------------------------------------------------------------------------------------------------------------------------
OBLDG-ONLY                                                                :
5/10 RMV #2 AND HOMESITE                                                  :
-------------------------------------------------------------------------:
          2014                RE                                          :
05 reval - no chg                                                         :
-------------------------------------------------------------------------:
-------------------------------------------------------------------------:
 year     land      bldg      total     net tax                           :
 2011     36810               36810     1618.64                           :
-------------------------------------------------------------------------:
                                                                          :ST RT 110
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                                                                  :                      DixHt        unit       blt/Renov replace phy fnc    true
                                                                  :   bldg type  SHB+consFtxFt area   rate  grade     cond  value  dpr dpr   value
                                                                  : tab #       s o i l                  acres   mkt/ac   market   au/ac    cauv
                                                                  : c  26   HV    HOYTVILLE CLAY C 0-    14.5000    5,950   86,280  3,870   56,120
                                                                  : c  58   RFA   RIMER LOAMY F S LFS    17.9000    5,000   89,500  2,140   38,310
                                                                  : c  24   HKA   HASKINS F S LOAM FS    22.6100    5,360  121,190  2,960   66,930
                                                                  : c  72   SBB2  ST CLAIR S C L(ME)      5.0000    4,410   22,050    870    4,350
                                                                  : c  76   TO    TOLEDO S C LOAM SIC     3.0000    5,730   17,190  3,360   10,080
                                                                  : c  10   DYA   DIGBY LOAM L 0-2%       9.1000    5,560   50,600  3,210   29,210
                                                                  : c  40   MH    MILLGROVE LOAM L 0-     4.0000    7,350   29,400  5,030   20,120
                                                                  : c  78   TUB2  TUSCOLA LOAM (ME) L     5.0000    5,580   27,900  1,000    5,000
                                                                  : c  74   TDA   TEDROW LOAMY F S LF      .6000    4,200    2,520  1,210      730
                                                                  : c  26   HV    HOYTVILLE CLAY C 0-     2.2900    5,950   13,630  3,870    8,860
                                                                  :   972   RDW   ROADS/DITCHES/WASTE     2.4900       50      130     50      130
                                                                  : ---------------------------------------------------------------------------
                                                                  :                                     86.4900          460,390 (100%)  239,840       cauv #  554
                                                                  :                                                      161,140 ( 35%)   83,940
------------------------------  ----------------------call back:    -    -          -    -      sign:     date:  5/27/10 lister:BG --------22-080004.0000-v020614
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HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-080002.0000 agr
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

2011 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99		sale	eff rate:	48.86	55.58	57.67	52.38	a/r			
2012 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99	r-t-s : 007-05-08		prop cls	110	110	110	110	2014	2015	2016	c a m a
2013 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99			acres	79.9500	79.9500	79.9500	79.9500				110
2014 CAMPBELL SOUP SUPPLY CO, LLC	7/30/99	SW FL N OF ST RD		land100%	324340	324340	324340	460710				460710
	EX			bldg100%								
P O BOX 391				totl100%	324340t	324340t	324340t	460710t	t	t	t	460710t
CAMDEN NJ 08103 1799		0608301001 V 55P 853		cauv100%	112860	112860	112860	256460				256450
				tax value:								
2015				land 35%	39500	39500	39500	89760				89760
				bldg 35%								
				totl 35%	39500t	39500t	39500t	89760t	t	t	t	89760t
				hmstd35%								
				owner oc								
2016				hmstd rb								
				net tax	1736.94	1975.94	2061.60	4265.22				
				cauv sav	3068.92	3070.52	3863.24	3397.10				

VACANT

2014	RE

05 reval - rmv shed, chg class

year	land	bldg	total	net tax
2011	39500		39500	1736.94

ST RT 110

tab #		s o i l	acres	mkt/ac	market	au/ac	cauv
c 36	MD	MEDWAY SILT LOAM SI	11.0000	6,470	71,170	3,690	40,590
c 22	HDA	HANEY LOAM L 0-2%	22.1000	5,440	120,220	2,640	58,340
c 32	LF	LENAWEE S C LOAM SI	9.0000	6,250	56,250	4,010	36,090
c 10	DYA	DIGBY LOAM L 0-2%	4.0000	5,560	22,240	3,210	12,840
c 72	SBB2	ST CLAIR S C L(ME)	4.5000	4,410	19,850	870	3,920
c 42	NTA	NAPPANEE S C LOAM S	1.8000	5,140	9,250	2,150	3,870
c 8	DFA	DEL RAY SILT LOAM S	4.0000	5,580	22,320	2,760	11,040
c 60	RS	ROSS LOAM L 0-2%	20.6000	6,760	139,260	4,350	89,610
990	WST	WASTE	2.9500	50	150	50	150
			79.9500		460,710 (100%)	256,450	cauv # 554
					161,250 (35%)	89,760	

PUB ELECTRIC
PUB PAVED ST/RD
topo: ROLLING
lot/hmsite% 200

call back: - - - - sign: date: 12/08/04 lister:BG 22-080002.0000-v020614

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 HARRISON TWP                          r e a l   p r o p e r t y   r e c o r d          HENRY    COUNTY, OHIO                          24-180010.0000     ind
 NAPOLEON CORP              00160      1/19/15                          5:00:02          KEVIN GARRINGER     , AUDITOR
------------------------------------ sale ---------------------------eff rate:---69.04-----75.47-----76.70---- 78.33------ a/r ------------------------------
2011 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99                        : tax year     2011      2012      2013      2014      2014      2015      2016   c a m a
2012 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99 r-t-s :    007-05-18   : prop cls      310       310       310       310                                      310
2013 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99                        : acres      7.3000    7.3000    7.3000    7.3000
2014 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99 W SD S PT S PT NW      : land100%   146000    146000    146000    146000                                   146000
                                          EX                         : bldg100%
     P O BOX 391                                                     : totl100%   146000t   146000t   146000t   146000t         t         t         t   146000t
     CAMDEN NJ 08103 1799                    0618176004 V  55P 853   :
-------------------------------------------------------------------:tax value:-------------------------------------------------------------------------------
2015                                                                : land 35%    51100     51100     51100     51100                                     51100
                                                                    : bldg 35%
                                                                    : totl 35%    51100t    51100t    51100t    51100t         t         t         t    51100t
                                                                    : hmstd35%
-------------------------------------------------------------------: owner oc
2016                                                                : hmstd rb
                                                                    : net tax   3527.74   3856.52   3919.22   4002.58
------------------------------------------------------------------------------------------------------------------------------------------------------------
VACANT                                                                :
-----------------------------------------------------------------------:
          2014               RE                                       :
-----------------------------------------------------------------------:
-----------------------------------------------------------------------:
 year     land      bldg      total     net tax                        :
 2011     51100               51100     3527.74                        :
-----------------------------------------------------------------------:
                                                                      :E MAUMEE ST
------------------------------------------------------------------------------------------------------------------------------------------------------------
                                                  :          acres/ efectv      dpth actual efectv  extnd  influence         true
                                                  :          frntge frntge dpth fctr   rate   rate  value  factor(s)        value
                                                  :            7.30  PRIMARY           @     20000 146000                  146000
                                                  :
                                                  :
                                                  :
                                                  :
                                                  :
                          PUB PAVED ST/RD         :
                          topo:  LEVEL            :
-------------------------- ---------------------call back:    -    -          -    -      sign:     date:  5/18/05 lister:SM --------24-180010.0000-v020614
```

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-180008.0000 ind
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

2011 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99		eff rate:	68.14	74.57	75.80	77.43	a/r				
2012 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99 r-t-s : 007-05-18		prop cls	310	310	310	310					c a m a
2013 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99		acres	18.8700	18.8700	18.8700	18.8700					310
2014 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99 PT S PT S PT NW		land100%	377400	377400	377400	377400					377400
	EX		bldg100%	1500060	1500060	1500060	1500060					1500070
P O BOX 391			totl100%	1877460t	1877460t	1877460t	1877460t	t	t	t		1877470t
CAMDEN NJ 08103 1799	0618176005 V 55P 853											
		tax value:										
2015			land 35%	132090	132090	132090	132090					132090
			bldg 35%	525020	525020	525020	525020					525020
			totl 35%	657110t	657110t	657110t	657110t	t	t	t		657110t
			hmstd35%									
			owner oc									
2016			hmstd rb									
			net tax	44772.64	49000.80	49807.16	50878.92					

CAMPBELLS V-8 PLANT AMCOR BLDG
10/92 ADD S & I ADDITION 10/05 AD NEW BLDG,ABATEMENT ON #2

2014 RE

year	land	bldg	total	net tax
2011	132090	525020	657110	44772.64

RD P-3

	bldg type	SHB+cons	DixHt FtxFt area	unit rate	grade	blt/Renov cond	replace value	phy fnc dpr	dpr	true value
1	BLDGS	*								1500070
2	BLDG	*	64000	63.00		2004E	4032000			
3	ABATE2015	*750	64000	63.00		2004E	4032000			

	acres/ frntge	efectv frntge	dpth	efectv actual rate	extnd rate	value	influence factor(s)	true value
	18.87	PRIMARY		@ 20000	377400			377400

PUB PAVED ST/RD
topo: LEVEL

call back: - - - - sign: date: 5/18/05 lister:SM --------22-180008.0000-v020614

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-180004.0200 agr
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

		sale	eff rate:	48.86	55.58	57.67	52.38	a/r			
2011 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07		tax year	2011	2012	2013	2014	2014	2015	2016	c a m a
2012 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07 r-t-s : 007-05-18		prop cls	110	110	110	110				110
2013 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07		acres	21.4300	21.4300	21.4300	21.4300				
2014 CAMPBELL SOUP SUPPLY CO., LLC	2/08/07 PCL PT NE 1/4		land100%	85170	85170	85170	120570				120560
	EX		bldg100%								
ONE CAMPBELL PLACE, MS 216			totl100%	85170t	85170t	85170t	120570t	t	t	t	120560t
CAMDEN NJ 08103	0618201003 V 223P 926		cauv100%	29000	29000	29000	67540				67540
		tax value:									
2015			land 35%	10150	10150	10150	23640				23640
			bldg 35%								
			totl 35%	10150t	10150t	10150t	23640t	t	t	t	23640t
			hmstd35%								
			owner oc								
2016	parent: 22-180004.0000		hmstd rb								
	orig tax year 2008		net tax	446.32	507.72	529.74	1123.34				
			cauv sav	826.54	827.00	1026.10	881.94				

VACANT
6/08 S 21.43 AC FRM 04.0000,PUT UNDER CAUV,SOIL TYPE,CHG CLS

2014 RE

year	land	bldg	total	net tax
2011	10150		10150	446.32

COUNTY ROAD P3

tab #		soil	acres	mkt/ac	market	au/ac	cauv
c 12	FUA	FULTON S C L SICL 0	1.9330	4,700	9,090	1,820	3,520
c 26	HV	HOYTVILLE CLAY C 0-	8.0290	5,950	47,770	3,870	31,070
c 38	ME	MERMILL LOAM L 0-2%	4.6230	6,740	31,160	4,270	19,740
c 48	OTB	OTTOKEE FINE SAND F	1.4860	4,700	6,980	2,040	3,030
c 58	RFA	RIMER LOAMY F S LFS	4.0270	5,000	20,140	2,140	8,620
c 74	TDA	TEDROW LOAMY F S LF	1.2910	4,200	5,420	1,210	1,560
972	RDW	ROADS/DITCHES/WASTE	.0410	50		50	
			21.4300		120,560 (100%)	67,540	cauv # 554
					42,200 (35%)	23,640	

PUB ELECTRIC
PUB PAVED ST/RD

topo: LEVEL
lot/hmsite% 200

call back: - - - - sign: date: lister: --------22-180004.0200-v020614

```
 HARRISON TWP                          r e a l   p r o p e r t y   r e c o r d          HENRY    COUNTY, OHIO                          22-180002.0000     ind
 NAPOLEON CSD              00150       1/19/15                          5:00:02          KEVIN GARRINGER     , AUDITOR
------------------------------------ sale ---------------------------eff rate:---68.14-----74.57-----75.80---- 77.43------ a/r ----------------------------
2011 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99                        : tax year     2011      2012      2013      2014      2014      2015      2016   c a m a
2012 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99 r-t-s :    007-05-18   : prop cls      310       310       310       310                                     310
2013 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99                        : acres     25.7700   25.7700   25.7700   25.7700
2014 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99 PT NW                  : land100%   515400    515400    515400    515400                                  515400
                                          EX                         : bldg100%  7394660   7394660   7394660   7394660                                 7394670
     P O BOX 391                                                     : totl100%  7910060t  7910060t  7910060t  7910060t         t         t         t  7910070t
     CAMDEN  NJ 08103 1799                    0618126001 V  55P 853  :
-------------------------------------------------------------------:tax value:-------------------------------------------------------------------------
2015                                                                : land 35%   180390    180390    180390    180390                                  180390
                                                                    : bldg 35%  2588130   2588130   2588130   2588130                                 2588130
                                                                    : totl 35%  2768520t  2768520t  2768520t  2768520t         t         t         t  2768520t
                                                                    : hmstd35%
-------------------------------------------------------------------: owner oc
2016                                                                : hmstd rb
                                                                    : net tax 188635.06 206449.02 209846.34 214361.88
-------------------------------------------------------------------------------------------------------------------------------------------------------
                         MAIN PLANT                                 :
SOUP PLANT                                                          :
10/11 RNV ABATMNT FOR #8 6/13 NO VAL CHNG      2/02 CHG ABATEMENT 35%   :
-------------------------------------------------------------------:
tax abatement    taxable     abated                                 :
1990/1991 (25%)  2019930     6059800 (75%) market                   :
1992/1993 (40%)  3231892     4847840 (60%) market                   :
1994/1995 (50%)  4039870     4039870 (50%) market                   :
1996/1997 (65%)  5251820     2827910 (35%) market                   :
these are tax duplicate years                                       :
          2014                RE                                    :
-------------------------------------------------------------------:
-------------------------------------------------------------------:
 year     land      bldg      total     net tax                     :
 2011    180390   2588130   2768520   188635.06                     :
-------------------------------------------------------------------:
                                                                    :12 773 STATE ROUTE 110
-------------------------------------------------------------------------------------------------------------------------------------------------------
                                                                    :                    DixHt        unit       blt/Renov replace phy fnc    true
                                                                    :  bldg type  SHB+consFtxFt area   rate  grade     cond  value  dpr dpr   value
                                                                    : 1 BLDGS      *                                                      5442670
                                                                    : 2 BLDGS      *                                1993                  1737120
                                                                    : 4 STORAGE    *   STL 65X4  3200  31.00         2009      99200   5       94240
                                                                    : 5 STORAGE B  *                                1994
                                                                    : 6 ROOF SHLT  *                                1995
                                                                    : 7 STORAGE    *                                1995
                         ALL PUB UTIL'S                             : 8 STORAGE    *   STL 52X58 3016  50.00         2000G                   120640
                         PUB PAVED ST/RD                            : 9 STORAGE    *NV      8X40 3200                         350000
                         topo:  LEVEL                               : ---------------------------------------------------------------------------------------------
                                                                    :          acres/ efectv      dpth actual efectv  extnd  influence         true
                                                                    :          frntge frntge dpth fctr   rate   rate  value  factor(s)        value
                                                                    :           25.77  PRIMARY          @     20000 515400                  515400
----------------------------  ----------------------call back:    -    -          -    -      sign: E   date:  6/13/13 lister:DS --------22-180002.0000-v020614
```

HARRISON TWP r e a l p r o p e r t y r e c o r d HENRY COUNTY, OHIO 22-180002.0000/01 ind
NAPOLEON CSD 00150 1/19/15 5:00:02 KEVIN GARRINGER , AUDITOR

2011 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99		sale	eff rate:	68.14	74.57	75.80	77.43	a/r				
2012 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99 r-t-s :	007-05-18		prop cls	310	310	310	310					310
2013 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99			acres	25.7700	25.7700	25.7700						
2014 CAMPBELL SOUP SUPPLY CO., LLC	7/30/99 PT NW			land100%									
	EX			bldg100%									
P O BOX 391				totl100%	t	t	t	t	t	t	t	t	t
CAMDEN NJ 08103 1799		0618126001 V 55P 853											
				tax value:									
2015				land 35%	180390	180390	180390						
				bldg 35%	2588130	2588130	2588130						
				totl 35%	t	t	t	t	t	t	t	t	t
				hmstd35%									
				owner oc									
2016				hmstd rb									
				net tax									

9/07 AD BLDGS,PAVING,ABATEMENTS ON ALL 9 OF THESE

tax abatement	taxable	abated
1990/1991 (25%)	2019930	6059800 (75%) market
1992/1993 (40%)	3231892	4847840 (60%) market
1994/1995 (50%)	4039870	4039870 (50%) market
1996/1997 (65%)	5251820	2827910 (35%) market

these are tax duplicate years
2014 RE

	bldg type	SHB+cons	DixHt FtxFt	area	unit rate	grade	blt/Renov cond	replace value	phy dpr	fnc dpr	true value
1	WAREHSE	*	360X240		32.00		2006G	5529600	5		
2	WAREHSE	*	360X240		32.00		2006G	5529600	5		
3	ABATE2017	*750	360X240				2006G	5253120			
4	ABATE2017	*750	360X240				2006G	5253120			
5	PAVING	*	300X515		2.25		2006G	347630	25		
6	PAVING	*	700X316		2.25		2006G	497700	25		
7	ABATE2017	*750	#5,6				2006G	633990			
8	GARD HSE	*	14X36	504	50.00		2006G	25200	5		
9	ABATE2017	*750		504			2006G	24940			

	acres/ frntge	efectv frntge	dpth	actual fctr	efectv rate	extnd value	influence factor(s)	true value
call back:	-	-	-	-	sign:	date:	lister:	--------22-180002.0000-v020614

```
 HARRISON TWP                          r e a l   p r o p e r t y   r e c o r d          HENRY    COUNTY, OHIO                          22-180002.0000/02  ind
 NAPOLEON CSD              00150       1/19/15                          5:00:02          KEVIN GARRINGER     , AUDITOR
------------------------------------ sale ---------------------------eff rate:---68.14-----74.57-----75.80---- 77.43------ a/r ----------------------------
2011 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99                        : tax year     2011      2012      2013      2014      2014      2015      2016   c a m a
2012 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99 r-t-s :    007-05-18   : prop cls      310       310       310       310                                     310
2013 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99                        : acres     25.7700   25.7700   25.7700
2014 CAMPBELL SOUP SUPPLY CO., LLC    7/30/99 PT NW                  : land100%
                                          EX                         : bldg100%
     P O BOX 391                                                     : totl100%        t         t         t         t         t         t         t         t
     CAMDEN  NJ 08103 1799                   0618126001 V  55P 853   :
-----------------------------------------------------------------:tax value:-------------------------------------------------------------------------------
2015                                                                : land 35%   180390    180390    180390
                                                                    : bldg 35%  2588130   2588130   2588130
                                                                    : totl 35%        t         t         t         t         t         t         t         t
                                                                    : hmstd35%
-----------------------------------------------------------------: owner oc
2016                                                                : hmstd rb
                                                                    : net tax
-------------------------------------------------------------------------------------------------------------------------------------------------------------
9/12 ADD #1 AND #2 TO PARCEL                                                :
-----------------------------------------------------------------------------:
tax abatement    taxable     abated                                         :
1990/1991 (25%)  2019930     6059800 (75%) market                           :
1992/1993 (40%)  3231892     4847840 (60%) market                           :
1994/1995 (50%)  4039870     4039870 (50%) market                           :
1996/1997 (65%)  5251820     2827910 (35%) market                           :
these are tax duplicate years                                               :
          2014                RE                                            :
-------------------------------------------------------------------------------------------------------------------------------------------------------------
                                                                    :                      DixHt        unit       blt/Renov replace phy fnc    true
                                                                    :   bldg type  SHB+consFtxFt area   rate  grade     cond  value  dpr dpr   value
                                                                    : 1 FREZERN29  *40'         17860  32.00         2012G    571520   5
                                                                    : 2 ABATE2023  *750         17860  32.00         2012G    542940
                                                                    : ---------------------------------------------------------------------------------------------------------
                                                                    :           acres/ efectv      dpth actual efectv  extnd  influence         true
                                                                    :           frntge frntge dpth fctr   rate   rate  value  factor(s)        value
----------------------------  ----------------------call back:    -    -           -    -      sign:     date:          lister:   --------22-180002.0000-v020614
```

HIG Research Summary

Site Location:
Napoleon, OH

HIG Project #:
149200

Research Summary Completed:
10/30/2014

Historical Information Gatherers

Conducted For:
Mannik & Smith Group, Inc.
1800 Indian Wood Circle
Maumee, OH

This Research Summary identifies the products and services ordered from Historical Information Gatherers, Inc. (HIG) for the above referenced site location.

City Directory Pages

A search was conducted for directories that include coverage of the site area. This included researching one or more of the following: HIG's City Directory Collection, the Allen County (Indiana) Public Library's city directory collection, the Library of Congress Business Reference Services Collection and other miscellaneous online sources.

No city directories for the site area were identified.

Topographic Maps

USGS Topographic Maps published in the years listed below were provided for the site location. Title blocks on each page list the map title, year and scale of the publication.

1908, 1960, 1971, 1977, 2010, 2013

GeoSearch (GS) Database Report

The Preliminary GS Database Report was delivered via email shortly after ordering to provide the approximate locations of database listings in the site area. A final Database Report was issued after verification and correction of database listing locations.

HIG Research Summary

Site Location:

Napoleon, OH

HIG Project #:

149200

Research Summary Completed:

10/30/2014

Historical Information Gatherers

Conducted For:

Mannik & Smith Group, Inc.
1800 Indian Wood Circle
Maumee, OH

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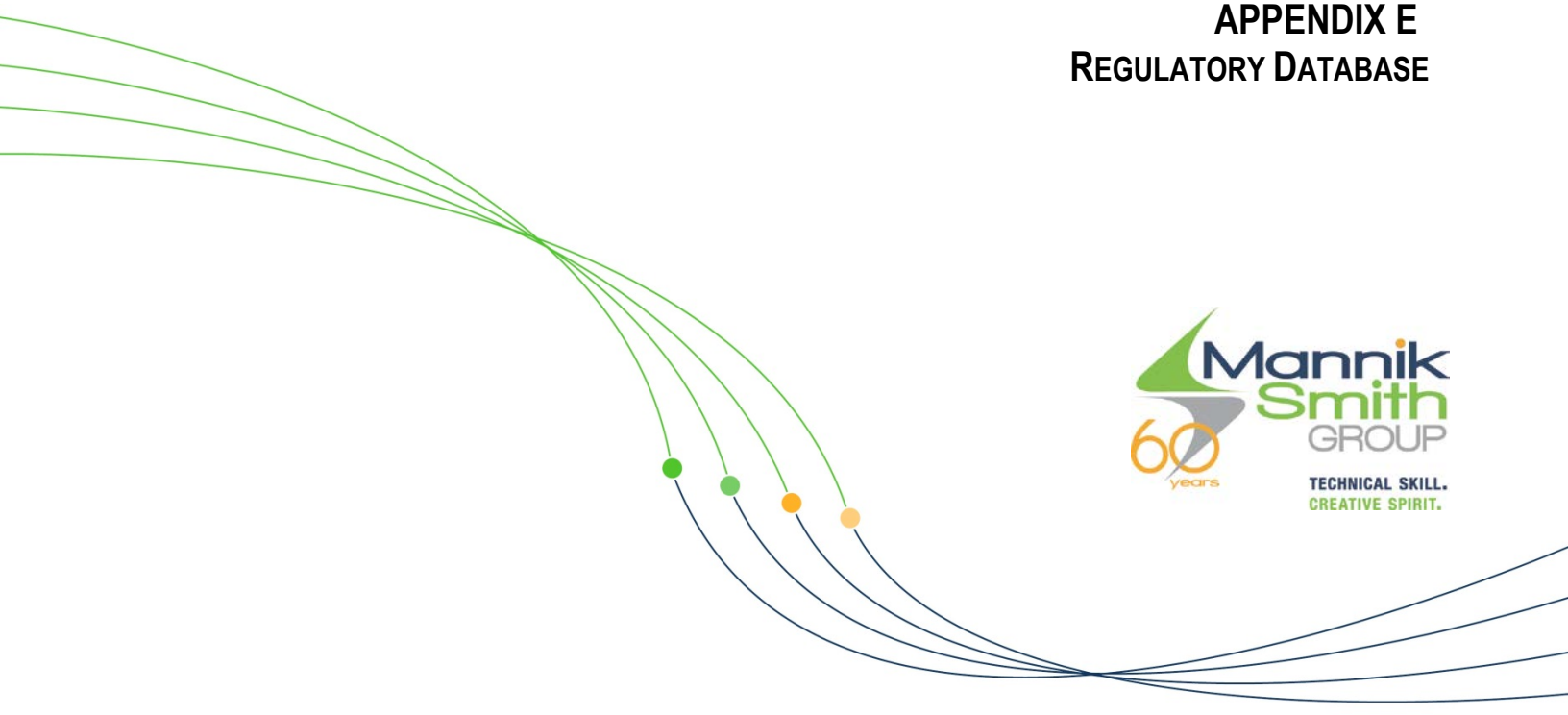
APPENDIX E
REGULATORY DATABASE



GeoSearch

On time. On target. In touch.™

Radius Report

Satellite view

Target Property:

Napoleon, OH

Napoleon, Henry County, Ohio 43545

Prepared For:

Historical Information Gatherers

Order #: 43010

Job #: 94228

Date: 10/30/2014

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Locatable Database Findings 6

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Ortho Map 12

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Unlocatable Summary 228

Environmental Records Definitions 230

Unlocatable Report . . . . . See Attachment

Zip Report . . . . . See Attachment

Disclaimer

This report was designed by GeoSearch to meet or exceed the records search requirements of the All Appropriate Inquires Rule (40 CFR §312.26) and the current version of the ASTM International E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or, if applicable, the custom requirements requested by the entity that ordered this report. The records and databases of records used to compile this report were collected from various federal,state and local governmental entities. It is the goal of GeoSearch to meet or exceed the 40 CFR §312.26 and E1527 requirements for updating records by using the best available technology. GeoSearch contacts the appropriate governmental entities on a recurring basis. Depending on the frequency with which a record source or database of records is updated by the governmental entity, the data used to prepare this report may be updated monthly, quarterly, semi-annually, or annually.

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Target Property Summary

Napoleon, OH
Napoleon, Henry County, Ohio 43545

USGS Quadrangle: ***Napoleon East, OH***
Target Property Geometry: ***Area***

Target Property Longitude(s)/Latitude(s):
(-84.107252, 41.404570), (-84.105823, 41.405481), (-84.105608, 41.405249), (-84.104072, 41.406178), (-84.103786, 41.405767), (-84.106734, 41.403980), (-84.107270, 41.404570), (-84.106716, 41.403998), (-84.100749, 41.402212), (-84.101017, 41.401837), (-84.100767, 41.401765), (-84.101035, 41.401497), (-84.097515, 41.399764), (-84.095693, 41.399800), (-84.095728, 41.402998), (-84.100820, 41.402194), (-84.106680, 41.404016), (-84.107252, 41.404570)

County/Parish Covered:
Henry (OH)

Zipcode(s) Covered:
Napoleon OH: 43545

State(s) Covered:
OH

****Target property is located in Radon Zone 2.***
Zone 2 areas have a predicted average indoor radon screening level between 2 and 4 pCi/L (picocuries per liter).

This report may have unlocatable records. Please see the Unlocatables Report, attached to this file.

Database Findings Summary

FEDERAL LISTING

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR FACILITY SUBSYSTEM	AIRSAFS	4	0	0.2500
BROWNFIELDS MANAGEMENT SYSTEM	BF	0	0	0.2500
BIENNIAL REPORTING SYSTEM	BRS	1	0	0.2500
CLANDESTINE DRUG LABORATORY LOCATIONS	CDL	0	0	0.2500
COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION & LIABILITY INFORMATION SYSTEM	CERCLIS	0	0	0.2500
DELISTED NATIONAL PRIORITIES LIST	DNPL	0	0	0.2500
EPA DOCKET DATA	DOCKETS	0	0	0.2500
DEPARTMENT OF DEFENSE SITES	DOD	0	0	0.2500
FEDERAL ENGINEERING INSTITUTIONAL CONTROL SITES	EC	0	0	0.2500
EMERGENCY RESPONSE NOTIFICATION SYSTEM	ERNSOH	1	0	0.2500
FACILITY REGISTRY SYSTEM	FRSOH	15	3	0.2500
FORMERLY USED DEFENSE SITES	FUDS	0	0	0.2500
HISTORICAL GAS STATIONS	HISTPST	0	0	0.2500
HAZARDOUS MATERIALS INCIDENT REPORTING SYSTEM	HMIRSR05	0	0	0.2500
INTEGRATED COMPLIANCE INFORMATION SYSTEM (FORMERLY DOCKETS)	ICIS	0	0	0.2500
INTEGRATED COMPLIANCE INFORMATION SYSTEM NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	ICISNPDES	1	0	0.2500
LAND USE CONTROL INFORMATION SYSTEM	LUCIS	0	0	0.2500
MATERIAL LICENSING TRACKING SYSTEM	MLTS	2	0	0.2500
NATIONAL COMPLIANCE DATABASE SYSTEM	NCDBC	0	0	0.2500
NATIONAL COMPLIANCE DATABASE SYSTEM	NCDBI	1	1	0.2500
NO FURTHER REMEDIAL ACTION PLANNED SITES	NFRAP	0	0	0.2500
NO LONGER REGULATED RCRA CORRECTIVE ACTION FACILITIES	NLRRCRAC	0	0	0.2500
NO LONGER REGULATED RCRA GENERATOR FACILITIES	NLRRCRAG	1	0	0.2500
NO LONGER REGULATED RCRA NON-CORRACTS TSD FACILITIES	NLRRCRAT	0	0	0.2500
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	NPDESR05	1	0	0.2500
NATIONAL PRIORITIES LIST	NPL	0	0	0.2500
OPEN DUMP INVENTORY	ODI	0	0	0.2500
PCB ACTIVITY DATABASE SYSTEM	PADS	0	0	0.2500
PERMIT COMPLIANCE SYSTEM	PCSR05	1	0	0.2500
PROPOSED NATIONAL PRIORITIES LIST	PNPL	0	0	0.2500
RESOURCE CONSERVATION & RECOVERY ACT - CORRECTIVE ACTION FACILITIES	RCRAC	1	0	0.2500
RESOURCE CONSERVATION & RECOVERY ACT - GENERATOR FACILITIES	RCRAGR05	4	0	0.2500

Database Findings Summary

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
RESOURCE CONSERVATION & RECOVERY ACT - NON-GENERATOR FACILITIES	RCRANGR05	1	1	0.2500
RCRA SITES WITH CONTROLS	RCRASC	0	0	0.2500
RESOURCE CONSERVATION & RECOVERY ACT - TREATMENT, STORAGE & DISPOSAL FACILITIES	RCRAT	0	0	0.2500
RECORD OF DECISION SYSTEM	RODS	0	0	0.2500
CERCLIS LIENS	SFLIENS	0	0	0.2500
SECTION SEVEN TRACKING SYSTEM	SSTS	0	0	0.2500
TOXICS RELEASE INVENTORY	TRI	2	0	0.2500
TOXIC SUBSTANCE CONTROL ACT INVENTORY	TSCA	0	0	0.2500
SUB-TOTAL		36	5	

Database Findings Summary

STATE (OH) LISTING

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
PERMIT BY RULE AIR FACILITIES	AIRS	3	0	0.2500
BROWNFIELD INVENTORY DATABASE	BF	0	0	0.2500
INSTITUTIONAL CONTROLS	DERRIC	0	0	0.2500
URBAN SETTING DESIGNATIONS	DERRUSD	0	0	0.2500
LEAKING UNDERGROUND STORAGE TANK FACILITIES	LUST	2	3	0.2500
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITS	NPDES	10	1	0.2500
SITES WITH CONTROLS	SC	0	0	0.2500
SPILLS LISTING	SPILLS	1	0	0.2500
SOLID WASTE FACILITIES	SWF	0	0	0.2500
UNDERGROUND STORAGE TANK FACILITIES	UST	2	0	0.2500
VOLUNTARY ACTION PROGRAM SITES	VAPS	0	0	0.2500

SUB-TOTAL		18	4	

Database Findings Summary

TRIBAL LISTING

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
INDIAN RESERVATIONS	INDIANRES	0	0	0.2500
LEAKING UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	LUSTR05	0	0	0.2500
OPEN DUMP INVENTORY ON TRIBAL LANDS	ODINDIAN	0	0	0.2500
UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	USTR05	0	0	0.2500
SUB-TOTAL		0	0	
TOTAL		54	9	

Locatable Database Findings

FEDERAL LISTING

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
AIRSAFS	0.2500		0	4	NS	NS	NS	4
BF	0.2500		0	0	NS	NS	NS	0
BRS	0.2500		0	1	NS	NS	NS	1
CDL	0.2500		0	0	NS	NS	NS	0
CERCLIS	0.2500		0	0	NS	NS	NS	0
DNPL	0.2500		0	0	NS	NS	NS	0
DOCKETS	0.2500		0	0	NS	NS	NS	0
DOD	0.2500		0	0	NS	NS	NS	0
EC	0.2500		0	0	NS	NS	NS	0
ERNSOH	0.2500		0	1	NS	NS	NS	1
FRSOH	0.2500		2	13	NS	NS	NS	15
FUDS	0.2500		0	0	NS	NS	NS	0
HISTPST	0.2500		0	0	NS	NS	NS	0
HMIRSR05	0.2500		0	0	NS	NS	NS	0
ICIS	0.2500		0	0	NS	NS	NS	0
ICISNPDES	0.2500		0	1	NS	NS	NS	1
LUCIS	0.2500		0	0	NS	NS	NS	0
MLTS	0.2500		0	2	NS	NS	NS	2
NCDBC	0.2500		0	0	NS	NS	NS	0
NCDBI	0.2500		0	1	NS	NS	NS	1
NFRAP	0.2500		0	0	NS	NS	NS	0
NLRRCRAC	0.2500		0	0	NS	NS	NS	0
NLRRCRAG	0.2500		0	1	NS	NS	NS	1
NLRRCRAT	0.2500		0	0	NS	NS	NS	0
NPDESR05	0.2500		0	1	NS	NS	NS	1
NPL	0.2500		0	0	NS	NS	NS	0
ODI	0.2500		0	0	NS	NS	NS	0
PADS	0.2500		0	0	NS	NS	NS	0
PCSR05	0.2500		0	1	NS	NS	NS	1
PNPL	0.2500		0	0	NS	NS	NS	0
RCRAC	0.2500		0	1	NS	NS	NS	1
RCRAGR05	0.2500		0	4	NS	NS	NS	4
RCRANGR05	0.2500		0	1	NS	NS	NS	1
RCRASC	0.2500		0	0	NS	NS	NS	0
RCRAT	0.2500		0	0	NS	NS	NS	0
RODS	0.2500		0	0	NS	NS	NS	0

Locatable Database Findings

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
SFLIENS	0.2500		0	0	NS	NS	NS	0
SSTS	0.2500		0	0	NS	NS	NS	0
TRI	0.2500		0	2	NS	NS	NS	2
TSCA	0.2500		0	0	NS	NS	NS	0
SUB-TOTAL			2	34	0	0	0	36

Locatable Database Findings

STATE (OH) LISTING

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
AIRS	0.2500		0	3	NS	NS	NS	3
BF	0.2500		0	0	NS	NS	NS	0
DERRIC	0.2500		0	0	NS	NS	NS	0
DERRUSD	0.2500		0	0	NS	NS	NS	0
LUST	0.2500		0	2	NS	NS	NS	2
NPDES	0.2500		1	9	NS	NS	NS	10
SC	0.2500		0	0	NS	NS	NS	0
SPILLS	0.2500		0	1	NS	NS	NS	1
SWF	0.2500		0	0	NS	NS	NS	0
UST	0.2500		0	2	NS	NS	NS	2
VAPS	0.2500		0	0	NS	NS	NS	0
SUB-TOTAL			1	17	0	0	0	18

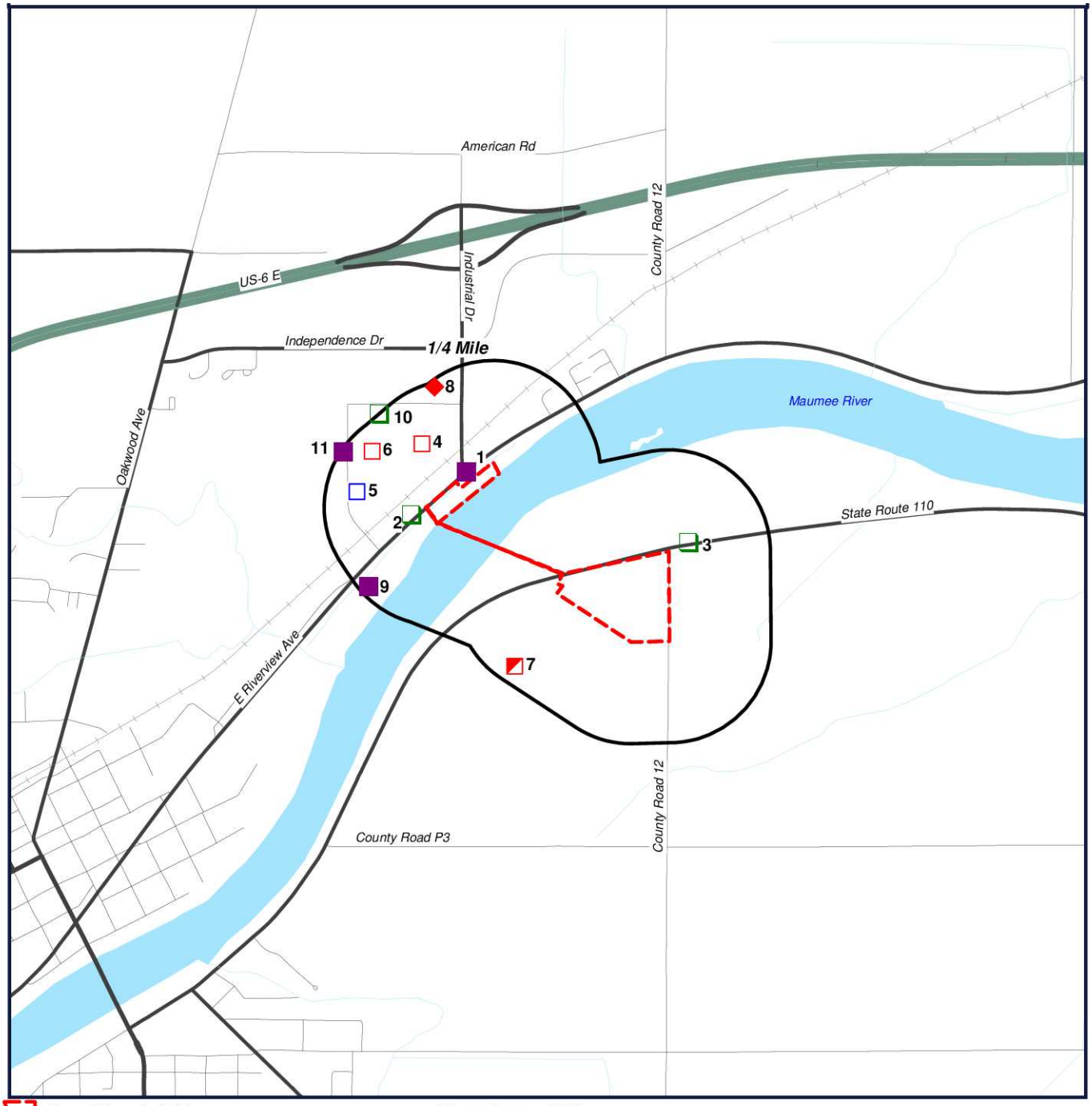
Locatable Database Findings

TRIBAL LISTING

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
INDIANRES	0.2500		0	0	NS	NS	NS	0
LUSTR05	0.2500		0	0	NS	NS	NS	0
ODINDIAN	0.2500		0	0	NS	NS	NS	0
USTR05	0.2500		0	0	NS	NS	NS	0
SUB-TOTAL			0	0	0	0	0	0
TOTAL		0	3	51	0	0	0	54

NOTES:
NS = NOT SEARCHED
TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

Radius Map 1



Target Property (TP)
NPDES
FRSOH
RCRAGR05
NLRRCRAG
RCRAC
LUST

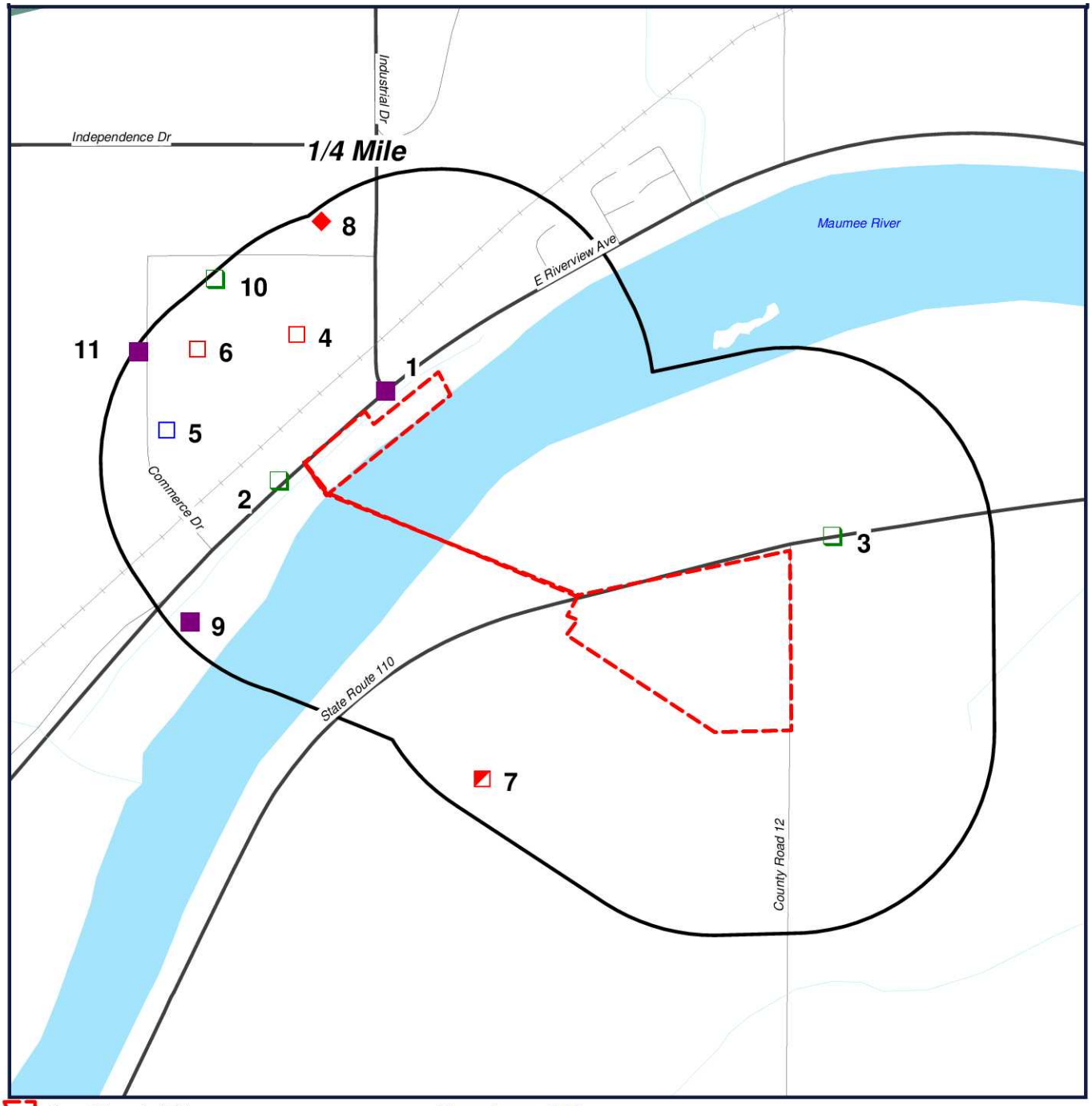
Napoleon, OH
Napoleon, Ohio
43545

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

Click here to access Satelite view

Radius Map 2



Target Property (TP)
NPDES
FRSOH
RCRAGR05
NLRRCRAG
RCRAC
LUST

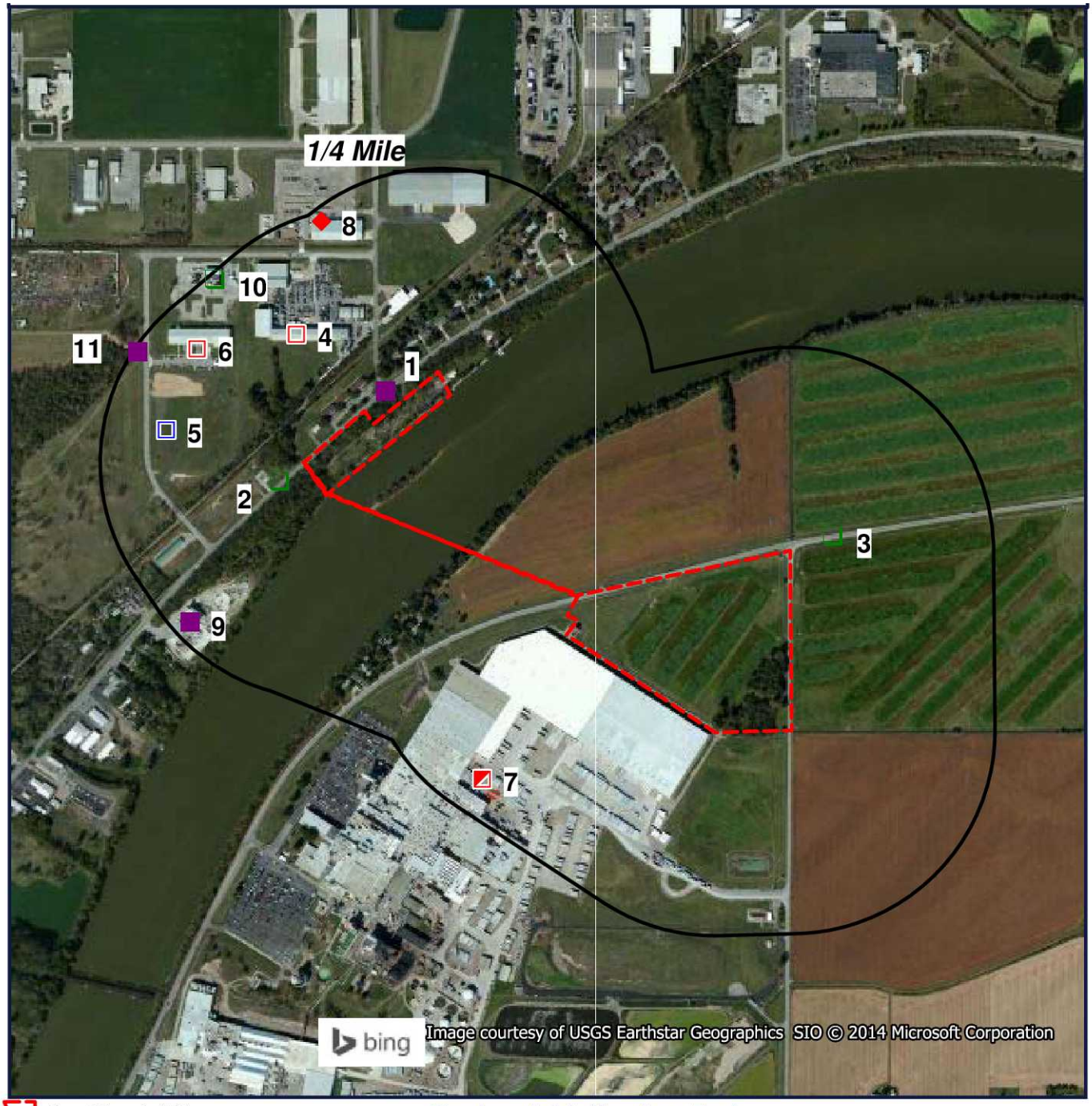
Napoleon, OH
Napoleon, Ohio
43545

N
W E
S

0' 500' 1000' 1500'
SCALE: 1" = 1000'

Click here to access Satelite view

Ortho Map



Target Property (TP)
NPDES
FRSOH
RCRAGR05
NLRRCRAG
RCRAC
LUST

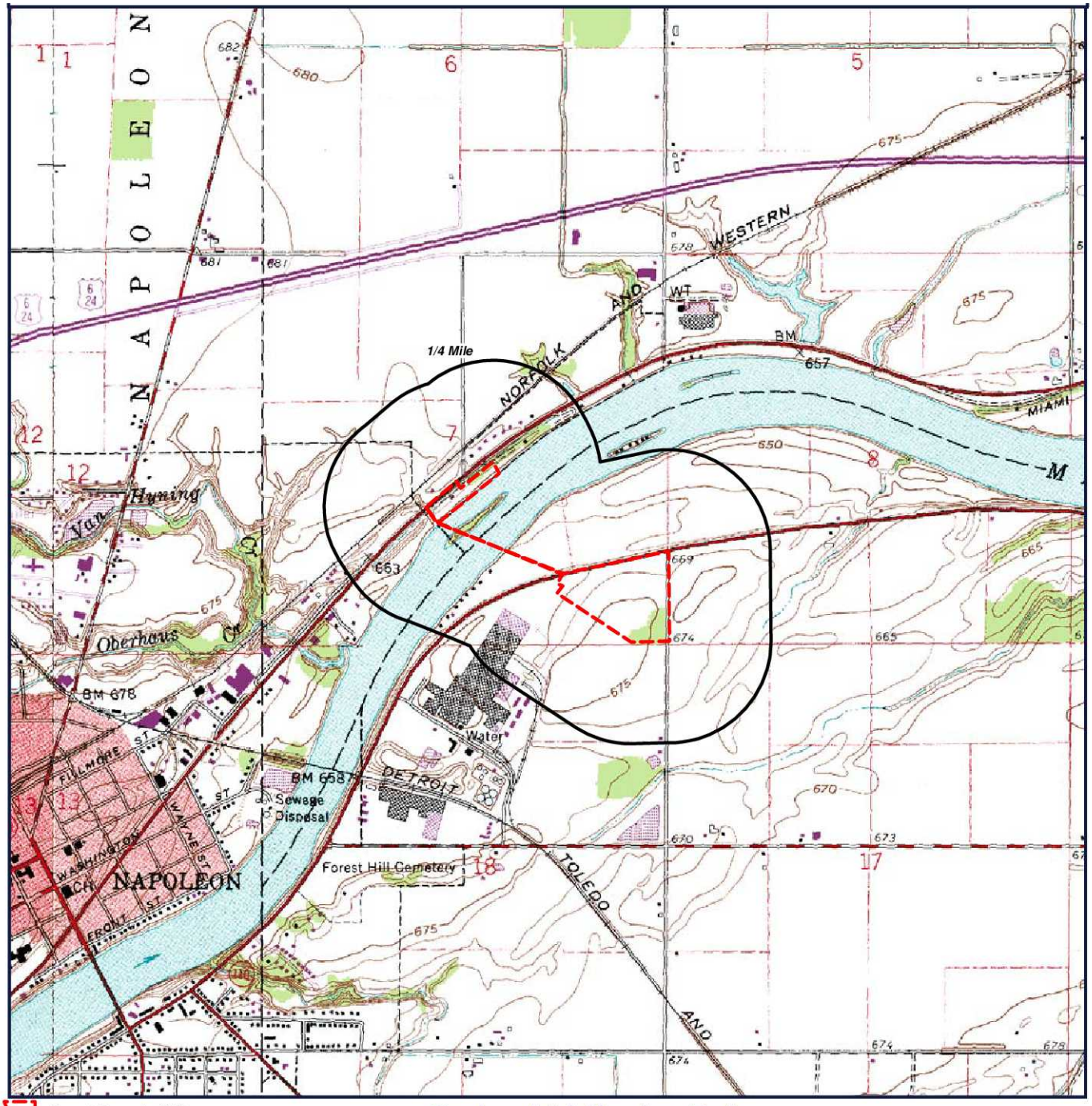
Quadrangle(s): Napoleon East
Napoleon, OH
Napoleon, Ohio
43545

N
W E
S

0' 500' 1000' 1500'
SCALE: 1" = 1000'

[Click here to access Satelite view]

Topographic Map



Target Property (TP)

Quadrangle(s): Napoleon East
Source: USGS, 1988
Napoleon, OH
Napoleon, Ohio
43545

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

[Click here to access Satelite view]

Report Summary of Locatable Sites

Map ID#	Database Name	Site ID#	Distance From Site	Site Name	Address	City, Zip Code	PAGE #
1	NPDES	2GC01204	0.03 NE	COMMERCE PARK	INDUSTRIAL DR & ST RTE 424 NAPOLEON	RTE 424 NAPOLEON, 43545	17
2	FRSOH	110006310660	0.04 SW	VERHOFF ALFALFA MILLS INC	753 E RIVERVIEW	NAPOLEON, 43545	18
3	FRSOH	110020961324	0.06 E		CORNER OF RT. 110 & RT. 12	NOT IN A CITY	19
4	NPDES	2GR01636	0.13 N	OLDCASTLE PRECAST ENCLOSURE SOLUTIONS NA	1675 INDUSTRIAL DR NAPOLEON	NAPOLEON, 43545	20
4	FRSOH	110017614973	0.13 N	CARSON INDUSTRIES LLC	1675 INDUSTRIAL DR	NAPOLEON, 43545	21
4	RCRAGR05	OHR000118984	0.13 N	CARSON INDUSTRIES LLC	1675 INDUSTRIAL DR	NAPOLEON, 43545	22
4	NPDES	2GR01636	0.13 N	OLDCASTLE PRECAST ENCLOSURE SOLUTIONS NA	1675 INDUSTRIAL DR	NAPOLEON, 43545	24
5	NLRRCRAG	OHR000135442	0.18 W	COMMERCE PARK	1600 COMMERCE DR	NAPOLEON, 43545	25
5	RCRANGR05	OHR000135442	0.18 W	COMMERCE PARK	1600 COMMERCE DR	NAPOLEON, 43545	27
5	FRSOH	110024835348	0.18 W	COMMERCE PARK	1600 COMMERCE DR	NAPOLEON, 43545	29
6	FRSOH	110040447512	0.2 NW	KOESTER CORPORATION	1650 COMMERCE DR	NAPOLEON, 43545	30
6	RCRAGR05	OHR000157685	0.2 NW	KOESTER CORPORATION	1650 COMMERCE DR	NAPOLEON, 43545	31
6	NPDES	2GC02992	0.2 NW	KOESTER CORPORATION	1650 COMMERCE DR NAPOLEON	NAPOLEON, 43545	33
7	LUST	35000059	0.21 SE	CAMPBELL SOUP CO.	E MAUMEE AVE	NAPOLEON, 43545	34
7	NPDES	2GC01283	0.21 SE	CAMPBELL SOUP WHSE	EAST MAUMEE AVE NAPOLEON	MAUMEE NAPOLEON, 43545	35
7	NPDES	2GC00474	0.21 SE	BLOW MOLDING FAC	12771 ST RT 110 NAPOLEON	RT 110 NAPOLEON, 43545	36
7	NPDES	2GC03151	0.21 SE	CAMPBELL SOUP SUPPLY CO NAPOLEON PLANT	12-773 SR 110 NAPOLEON	, 43545	37
7	NPDES	2GC02615	0.21 SE	CAMPBELL SOUP SUPPLY CO LLC-NAPOLEON PL	12-773 SR 110 NAPOLEON	, 43545	38
7	UST	35000059	0.21 SE	CAMPBELL SOUP CO.	E MAUMEE AVE	NAPOLEON, 43545	39
7	AIRSAFS	1017274	0.21 SE	SILGAN CAN COMPANY	12-733 ST ROUTE 110	NAPOLEON, 43545	40
7	AIRSAFS	43633	0.21 SE	CAMPBELL SOUP COMPANY	CAMPBELL SOUP COMPANY LLC	NAPOLEON, 43545	60
7	BRS	OHR000029223	0.21 SE	SILGAN CAN CO	12-773 STATE ROUTE 110 SUITE 1	NAPOLEON, 43545	100
7	ERNSOH	405624	0.21 SE		12-773 STATE ROUTE 110 BEVERAGE PLA	NAPOLEON, 43545	105

7	FRSOH	110000383736	0.21 SE	CAMPBELL SOUP SUPPLY CO LLC	12-773 STATE ROUTE 110	NAPOLEON, 43545	106
7	FRSOH	110006108942	0.21 SE	CAMPBELL SOUP PLANT	12773 TOWNSHIP ROAD P3	NAPOLEON, 43545	108
7	FRSOH	110045006159	0.21 SE	NAPOLEON SOLAR I	12733 STATE ROUTE 110	NAPOLEON, 43545	110
7	FRSOH	110000741742	0.21 SE	SILGAN CAN CO	12-773 STATE ROUTE 110	NAPOLEON, 43545	111
7	FRSOH	110041176679	0.21 SE	CAMPBELL SOUP COMPANY (0335010105)	CAMPBELL SOUP COMPANY LLC	NAPOLEON, 43545	112
7	FRSOH	110020924295	0.21 SE		CAMPBELL SOUP CO., HOSPITAL	NAPOLEON, 43545	113
7	ICISNPDES	OH0003298	0.21 SE	CAMPBELL SOUP COMPANY	STATE ROUTE 110	NAPOLEON, 43545	114
7	MLTS	34-13219-01	0.21 SE	CAMPBELL SOUP COMPANY	EAST MAUMEE AVENUE	NAPOLEON, 43545	134
7	MLTS	34-13219-02	0.21 SE	CAMPBELL SOUP COMPANY	E. MAUMEE AVENUE	NAPOLEON, 43545	135
7	NPDESR05	OH0003298	0.21 SE	CAMPBELL SOUP COMPANY	STATE ROUTE 110	NAPOLEON, 43545	136
7	PCSR05	OH0003298	0.21 SE	CAMPBELL SOUP COMPANY	STATE ROUTE 110	NAPOLEON	137
7	RCRAC	OHD005419171	0.21 SE	CAMPBELL SOUP SUPPLY CO - SOUP PLANT	12-773 STATE RTE 110	NAPOLEON, 43545	150
7	RCRAGR05	OHR000029223	0.21 SE	SILGAN CAN CO	12-773 STATE ROUTE 110 SUITE 1	NAPOLEON, 43545	153
7	RCRAGR05	OHD005419171	0.21 SE	CAMPBELL SOUP SUPPLY CO - SOUP PLANT	12-773 STATE RTE 110	NAPOLEON, 43545	157
7	TRI	43545SLGNC12773	0.21 SE	SILGAN CAN CO	12-773 ST RT 110	NAPOLEON, 43545	160
7	TRI	43545CMPBLEASTM	0.21 SE	CAMPBELL SOUP SUPPLY CO LLC	12-773 STATE RT 110	NAPOLEON, 43545	161
7	AIRS	03-35-01-0105	0.21 SE	CAMPBELL SOUP COMPANY	CAMPBELL SOUP COMPANY LLC	NAPOLEON, 43545	163
8	AIRS	03-35-01-0069	0.24 N	CITY OF NAPOLEON-MUNICIPAL SERVICE BUIL	1775 INDUSTRIAL DR	NAPOLEON, 43545	165
8	LUST	35000020	0.24 N	MUNICIPAL SERVICE BUILDING	1775 INDUSTRIAL DR	NAPOLEON, 43545	166
8	SPILLS	859322502	0.24 N		1775 INDUSTRIAL DR	NAPOLEON	167
8	UST	35000020	0.24 N	MUNICIPAL SERVICE BUILDING	1775 INDUSTRIAL DR	NAPOLEON, 43545	168
8	AIRSAFS	1019786	0.24 N	OMEGA JV2 NAPOLEON DIESEL PEAKING STATIO	1775 INDUSTRIAL DRIVE	NAPOLEON, 43454	169
8	FRSOH	110043972813	0.24 N	AMP-OHIO GAS TURBINES NAPOLEON	1775 INDUSTRIAL DRIVE	NAPOLEON, 43545	177
8	FRSOH	110046563937	0.24 N	CITY OF NAPOLEON - MUNICIPAL SERVICE BLD	1775 INDUSTRIAL DR	NAPOLEON, 43545	178
8	FRSOH	110006233726	0.24 N	OMEGA JV2 NAPOLEON GENERATING STATION	1775 INDUSTRIAL DRIVE	NAPOLEON, 43545	179
8	NCDBI	19900315OH021 1	0.24 N	CITY OF NAPOLEON ELECTRIC DEPT	1775 INDUSTRIAL DR	NAPOLEON, 43545	181

8	AIRS	03-35-01-0055	0.24 N	OMEGA JV2-NAPOLEON	1775 INDUSTRIAL DR	NAPOLEON, 43545	182
9	NPDES	2GR01931	0.24 SW	ALL OHIO #5473	641 E RIVERVIEW AVENUE NAPOLEON	, 43545	183
10	FRSOH	110012512539	0.24 NW	AMP-OHIO GAS TURBINE, NAPOLEON	775 INTERCHANGE DR	NAPOLEON, 43545	184
10	AIRSAFS	1017275	0.24 NW	AMP NAPOLEON GENERATION STATION	775 INTERCHANGE DRIVE	NAPOLEON, 43545	185
11	NPDES	2GC03123	0.25 NW	AMP NAPOLEON SOLAR FACILITY	1645 COMMERCE DR	NAPOLEON, 43545	227

National Pollutant Discharge Elimination System Permits (NPDES)

MAP ID# 1 **Distance from Property: 0.03 mi. NE**

SITE INFORMATION

PERMIT NUMBER: **2GC01204*AG**
NAME: **COMMERCE PARK**
ADDRESS: **INDUSTRIAL DR & ST RTE 424 NAPOLEON, OH 43545**
COUNTY: **HENRY**
APPLICATION NAME: **CITY OF NAPOLEON**
APPLICATION ADDRESS: **255 W RIVERVIEW AVE, PO BOX 151 NAPOLEON, OH 43545**
ISSUE DATE: **03/20/06**
TYPE: **CONSTRUCTION**

Back to Report Summary

MAP ID# 2 **Distance from Property: 0.04 mi. SW**

FACILITY INFORMATION

REGISTRY ID: **110006310660**

NAME: **VERHOFF ALFALFA MILLS INC**

LOCATION ADDRESS: **753 E RIVERVIEW**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

VERHOFF ALFALFA MILLS INC

PROGRAM/S LISTED FOR THIS FACILITY

OH-CORE - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

Back to Report Summary

Facility Registry System (FRSOH)

MAP ID# 3 **Distance from Property: 0.06 mi. E**

FACILITY INFORMATION

REGISTRY ID: **110020961324**

NAME: **NOT REPORTED**

LOCATION ADDRESS: **CORNER OF RT. 110 & RT. 12**
NOT IN A CITY, OH

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:
NO ALTERNATIVE NAME(S) LISTED FOR THIS FACILITY

PROGRAM/S LISTED FOR THIS FACILITY
AIRS/AQS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR QUALITY SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)
NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)
NO NAICS DATA REPORTED

Back to Report Summary

MAP ID# 4 **Distance from Property: 0.13 mi. N**

SITE INFORMATION

PERMIT NUMBER: **2GR01636*EG**
NAME: **OLDCASTLE PRECAST ENCLOSURE SOLUTIONS NAPOLEON PLT**
ADDRESS: **1675 INDUSTRIAL DR NAPOLEON, OH 43545**
COUNTY: **HENRY**
APPLICATION NAME: **OLDCASTLE PRECAST INC**
APPLICATION ADDRESS: **1675 INDUSTRIAL DR NAPOLEON, OH 43545**
ISSUE DATE: **02/20/12**
TYPE: **INDUSTRIAL**

Back to Report Summary

Facility Registry System (FRSOH)

MAP ID# 4 **Distance from Property: 0.13 mi. N**

FACILITY INFORMATION

REGISTRY ID: **110017614973**

NAME: **CARSON INDUSTRIES LLC**

LOCATION ADDRESS: **1675 INDUSTRIAL DR**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

CARSON INDUSTRIES LLC

CARSON INDUSTRIES LLC

PROGRAM/S LISTED FOR THIS FACILITY

OH-CORE - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

RCRAINFO - RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

33322 - PLASTICS AND RUBBER INDUSTRY MACHINERY MANUFACTURING

Back to Report Summary

Resource Conservation & Recovery Act - Generator Facilities (RCRAGR05)

MAP ID# 4 **Distance from Property: 0.13 mi. N**

FACILITY INFORMATION

EPA ID#: **OHR000118984**
NAME: **CARSON INDUSTRIES LLC**
ADDRESS: **1675 INDUSTRIAL DR**
NAPOLEON, OH 43545
CONTACT NAME: **IAN D MARTEN**
CONTACT ADDRESS: **1675 INDUSTRIAL DR**
NAPOLEON OH 43545
CONTACT PHONE: **419-592-2309**
NON-NOTIFIER: **NOT A NON-NOTIFIER**
DATE RECEIVED BY AGENCY: **03/15/2004**

OWNER TYPE: **PRIVATE**
OWNER NAME: **CARSON INDUSTRIES**
OPERATOR TYPE: **PRIVATE**
OPERATOR NAME: **CARSON INDUSTRIES**

CERTIFICATION

CERTIFICATION NAME:	CERTIFICATION TITLE:	CERTIFICATION SIGNED DATE:
IAN MARTEN	**DISTRIBUTION MGR**	**03/09/2004**

INDUSTRY CLASSIFICATION (NAICS)

33322 - PLASTICS AND RUBBER INDUSTRY MACHINERY MANUFACTUR

SITE HISTORY (INCLUDES GENERATORS AND NON-GENERATORS)

DATE RECEIVED BY AGENCY: **03/15/2004**
NAME: **CARSON INDUSTRIES LLC**
GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **LARGE QUANTITY GENERATOR** LAST UPDATED DATE: **03/17/2004**
SUBJECT TO CORRECTIVE ACTION UNIVERSE: **NO**
TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**
TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **NO**
NON TSDFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**
CORRECTIVE ACTION WORKLOAD UNIVERSE: **NO**

IMPORTER: **NO**
MIXED WASTE GENERATOR: **NO**
RECYCLER: **NO**
TRANSPORTER: **NO**
ONSITE BURNER EXEMPTION: **NO**
FURNACE EXEMPTION: **NO**
USED OIL REFINER: **NO**
USED OIL TRANSFER FACILITY: **NO**
UNDERGROUND INJECTION: **NO**
UNIVERSAL WASTE DESTINATION FACILITY: **NO**
TRANSFER FACILITY: **NO**
USED OIL FUEL BURNER: **NO**
USED OIL PROCESSOR: **NO**
USED OIL FUEL MARKETER TO BURNER: **NO**
SPECIFICATION USED OIL MARKETER: **NO**
USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS **- NO EVALUATIONS REPORTED -**
VIOLATIONS **- NO VIOLATIONS REPORTED -**
ENFORCEMENTS **- NO ENFORCEMENTS REPORTED -**

HAZARDOUS WASTE

D001 **IGNITABLE WASTE**

UNIVERSAL WASTE **- NO UNIVERSAL WASTE REPORTED -**

CORRECTIVE ACTION AREA **- NO CORECTIVE ACTION AREA INFORMATION REPORTED -**

CORRECTIVE ACTION EVENT **- NO CORECTIVE ACTION EVENT REPORTED -**

Back to Report Summary

National Pollutant Discharge Elimination System Permits (NPDES)

MAP ID# 4 **Distance from Property: 0.13 mi. N**

SITE INFORMATION

PERMIT NUMBER: **2GR01636*EG**
NAME: **OLDCASTLE PRECAST ENCLOSURE SOLUTIONS NAPOLEON PLT**
ADDRESS: **1675 INDUSTRIAL DR NAPOLEON, OH 43545**
COUNTY: **HENRY**
APPLICATION NAME: **OLDCASTLE PRECAST INC**
APPLICATION ADDRESS: **1675 INDUSTRIAL DR NAPOLEON, OH 43545**
ISSUE DATE: **02/20/12**
TYPE: **INDUSTRIAL**

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MAP ID# 5 **Distance from Property: 0.18 mi. W**

FACILITY INFORMATION

EPA ID#: **OHR000135442**
NAME: **COMMERCE PARK**
ADDRESS: **1600 COMMERCE DR**
NAPOLEON, OH 43545
CONTACT NAME: **JEFF MARIHUGH**
CONTACT ADDRESS: **225 W RIVERVIEW AVE**
NAPOLEON OH 43545
CONTACT PHONE: **419-599-1891**
NON-NOTIFIER: **NOT A NON-NOTIFIER**
DATE RECEIVED BY AGENCY: **06/12/2008**

OWNER TYPE: **MUNICIPAL**
OWNER NAME: **CITY OF NAPOLEON**
OPERATOR TYPE: **MUNICIPAL**
OPERATOR NAME: **CITY OF NAPOLEON**

CERTIFICATION

CERTIFICATION NAME:	CERTIFICATION TITLE:	CERTIFICATION SIGNED DATE:
JON A BISHER	**ENVIRONMENTAL**	**10/30/2007**
JON A BISHER	**CITY MANAGER**	**06/04/2008**
DR JON A BISHER	**CITY MANAGER**	**04/13/2006**

INDUSTRY CLASSIFICATION (NAICS)

92119 - OTHER GENERAL GOVERNMENT SUPPORT

SITE HISTORY (INCLUDES GENERATORS AND NON-GENERATORS)

DATE RECEIVED BY AGENCY: **04/24/2006**
NAME: **COMMERCE PARK**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **06/12/2008**
NAME: **COMMERCE PARK**
GENERATOR CLASSIFICATION: **NOT A GENERATOR**

DATE RECEIVED BY AGENCY: **10/30/2007**
NAME: **COMMERCE PARK**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **SMALL QUANTITY GENERATOR** LAST UPDATED DATE: **07/29/2008**
SUBJECT TO CORRECTIVE ACTION UNIVERSE: **NO**
TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**
TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **NO**
NON TSDFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**
CORRECTIVE ACTION WORKLOAD UNIVERSE: **NO**

IMPORTER: **NO**
MIXED WASTE GENERATOR: **NO**
RECYCLER: **NO**
TRANSPORTER: **NO**
ONSITE BURNER EXEMPTION: **NO**
FURNACE EXEMPTION: **NO**
USED OIL REFINER: **NO**
UNDERGROUND INJECTION: **NO**
UNIVERSAL WASTE DESTINATION FACILITY: **NO**
TRANSFER FACILITY: **NO**
USED OIL FUEL BURNER: **NO**
USED OIL PROCESSOR: **NO**
USED OIL FUEL MARKETER TO BURNER: **NO**
SPECIFICATION USED OIL MARKETER: **NO**

USED OIL TRANSFER FACILITY: **NO** USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS

10/03/2007 NRR NON-FINANCIAL RECORD REVIEW

11/06/2007 NRR NON-FINANCIAL RECORD REVIEW

VIOLATIONS

10/03/2007 262.D GENERATORS - RECORDS/REPORTING

ENFORCEMENTS

10/03/2007 120 WRITTEN INFORMAL

HAZARDOUS WASTE

D001 IGNITABLE WASTE

D004 ARSENIC

D008 LEAD

D018 BENZENE

UNIVERSAL WASTE

WASTE TYPE:	ACCUMULATED WASTE ON-SITE:	GENERATED WASTE ON-SITE:	SOURCE TYPE:
BATTERIES	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**
LAMPS	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**
PESTICIDES	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**
MERCURY CONTAINING EQUIPMENT	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**

CORRECTIVE ACTION AREA **- NO CORECTIVE ACTION AREA INFORMATION REPORTED -**

CORRECTIVE ACTION EVENT **- NO CORECTIVE ACTION EVENT REPORTED -**

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Resource Conservation & Recovery Act - Non-Generator Facilities (RCRANGR05)

MAP ID# 5 **Distance from Property: 0.18 mi. W**

FACILITY INFORMATION

EPA ID#: **OHR000135442**
NAME: **COMMERCE PARK**
ADDRESS: **1600 COMMERCE DR**
NAPOLEON, OH 43545
CONTACT NAME: **JON A BISHER**
CONTACT ADDRESS: **255 W RIVERVIEW P O BOX 151**
NAPOLEON OH 43545
CONTACT PHONE: **419-599-1891**
NON-NOTIFIER: **NOT A NON-NOTIFIER**
DATE RECEIVED BY AGENCY: **06/12/2008**

OWNER TYPE: **MUNICIPAL**
OWNER NAME: **CITY OF NAPOLEON**
OPERATOR TYPE: **MUNICIPAL**
OPERATOR NAME: **CITY OF NAPOLEON**

CERTIFICATION

CERTIFICATION NAME:	CERTIFICATION TITLE:	CERTIFICATION SIGNED DATE:
JON A BISHER	**ENVIRONMENTAL**	**10/30/2007**
JON A BISHER	**CITY MANAGER**	**06/04/2008**
DR JON A BISHER	**CITY MANAGER**	**04/13/2006**

INDUSTRY CLASSIFICATION (NAICS)

92119 - OTHER GENERAL GOVERNMENT SUPPORT

SITE HISTORY (INCLUDES GENERATORS AND NON-GENERATORS)

DATE RECEIVED BY AGENCY: **04/24/2006**
NAME: **COMMERCE PARK**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **06/12/2008**
NAME: **COMMERCE PARK**
GENERATOR CLASSIFICATION: **NOT A GENERATOR**

DATE RECEIVED BY AGENCY: **10/30/2007**
NAME: **COMMERCE PARK**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **NOT A GENERATOR** LAST UPDATED DATE: **07/29/2008**
SUBJECT TO CORRECTIVE ACTION UNIVERSE: **NO**
TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**
TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **NO**
NON TSDFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**
CORRECTIVE ACTION WORKLOAD UNIVERSE: **NO**

IMPORTER: **NO**
MIXED WASTE GENERATOR: **NO**
RECYCLER: **NO**
TRANSPORTER: **NO**
ONSITE BURNER EXEMPTION: **NO**
FURNACE EXEMPTION: **NO**
USED OIL REFINER: **NO**
UNDERGROUND INJECTION: **NO**
UNIVERSAL WASTE DESTINATION FACILITY: **NO**
TRANSFER FACILITY: **NO**
USED OIL FUEL BURNER: **NO**
USED OIL PROCESSOR: **NO**
USED OIL FUEL MARKETER TO BURNER: **NO**
SPECIFICATION USED OIL MARKETER: **NO**

USED OIL TRANSFER FACILITY: **NO** USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS

10/03/2007	**NRR**	**NON-FINANCIAL RECORD REVIEW**
11/06/2007	**NRR**	**NON-FINANCIAL RECORD REVIEW**

VIOLATIONS

10/03/2007	**262.D**	**GENERATORS - RECORDS/REPORTING**

ENFORCEMENTS

10/03/2007	**120**	**WRITTEN INFORMAL**

HAZARDOUS WASTE

D001	**IGNITABLE WASTE**
D004	**ARSENIC**
D008	**LEAD**
D018	**BENZENE**

UNIVERSAL WASTE

WASTE TYPE:	ACCUMULATED WASTE ON-SITE:	GENERATED WASTE ON-SITE:	SOURCE TYPE:
BATTERIES	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**
LAMPS	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**
PESTICIDES	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**
MERCURY CONTAINING EQUIPMENT	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**

CORRECTIVE ACTION AREA **- NO CORECTIVE ACTION AREA INFORMATION REPORTED -**

CORRECTIVE ACTION EVENT **- NO CORECTIVE ACTION EVENT REPORTED -**

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MAP ID# 5 **Distance from Property: 0.18 mi. W**

FACILITY INFORMATION

REGISTRY ID: **110024835348**

NAME: **COMMERCE PARK**

LOCATION ADDRESS: **1600 COMMERCE DR**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

COMMERCE PARK

COMMERCE PARK

PROGRAM/S LISTED FOR THIS FACILITY

RCRAINFO - RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

OH-CORE - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

92119 - OTHER GENERAL GOVERNMENT SUPPORT

Back to Report Summary

MAP ID# 6 **Distance from Property: 0.20 mi. NW**

FACILITY INFORMATION

REGISTRY ID: **110040447512**

NAME: **KOESTER CORPORATION**

LOCATION ADDRESS: **1650 COMMERCE DR**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

KOESTER CORPORATION

PROGRAM/S LISTED FOR THIS FACILITY

RCRAINFO - RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

332722 - BOLT, NUT, SCREW, RIVET, AND WASHER MANUFACTURING.

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Resource Conservation & Recovery Act - Generator Facilities (RCRAGR05)

MAP ID# 6 **Distance from Property: 0.20 mi. NW**

FACILITY INFORMATION

EPA ID#: **OHR000157685**
NAME: **KOESTER CORPORATION**
ADDRESS: **1650 COMMERCE DR**
NAPOLEON, OH 43545
CONTACT NAME: **MIKE SCHAFER**
CONTACT ADDRESS: **1650 COMMERCE DR**
NAPOLEON OH 43545
CONTACT PHONE: **419-599-1650**
NON-NOTIFIER: **NOT A NON-NOTIFIER**
DATE RECEIVED BY AGENCY: **12/21/2009**

OWNER TYPE: **PRIVATE**
OWNER NAME: **KOESTER CORPORATION**
OPERATOR TYPE: **PRIVATE**
OPERATOR NAME: **KOESTER CORPORATION**

CERTIFICATION

CERTIFICATION NAME:	CERTIFICATION TITLE:	CERTIFICATION SIGNED DATE:
MIKE SCHAFER	**MANAGER**	**12/17/2009**

INDUSTRY CLASSIFICATION (NAICS)
332722 - BOLT, NUT, SCREW, RIVET, AND WASHER MANUFACTURING

SITE HISTORY (INCLUDES GENERATORS AND NON-GENERATORS)
DATE RECEIVED BY AGENCY: **12/21/2009**
NAME: **KOESTER CORPORATION**
GENERATOR CLASSIFICATION: **LARGE QUANTITY GENERATOR**

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR** LAST UPDATED DATE: **02/05/2010**
SUBJECT TO CORRECTIVE ACTION UNIVERSE: **NO**
TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**
TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **NO**
NON TSDFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**
CORRECTIVE ACTION WORKLOAD UNIVERSE: **NO**

IMPORTER: **NO**
MIXED WASTE GENERATOR: **NO**
RECYCLER: **NO**
TRANSPORTER: **NO**
ONSITE BURNER EXEMPTION: **NO**
FURNACE EXEMPTION: **NO**
USED OIL REFINER: **NO**
USED OIL TRANSFER FACILITY: **NO**

UNDERGROUND INJECTION: **NO**
UNIVERSAL WASTE DESTINATION FACILITY: **NO**
TRANSFER FACILITY: **NO**
USED OIL FUEL BURNER: **NO**
USED OIL PROCESSOR: **NO**
USED OIL FUEL MARKETER TO BURNER: **NO**
SPECIFICATION USED OIL MARKETER: **NO**
USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS **- NO EVALUATIONS REPORTED -**
VIOLATIONS **- NO VIOLATIONS REPORTED -**
ENFORCEMENTS **- NO ENFORCEMENTS REPORTED -**

HAZARDOUS WASTE

D001 **IGNITABLE WASTE**

D035	**METHYL ETHYL KETONE**
F003	**THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.**
F005	**THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE,CARBON DISULFIDE, ISOBUTANOL, PYRIDINE,BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001,F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.**

UNIVERSAL WASTE

WASTE TYPE:	ACCUMULATED WASTE ON-SITE:	GENERATED WASTE ON-SITE:	SOURCE TYPE:
BATTERIES	**NO**	**NOT REPORTED**	**NOTIFICATION**
LAMPS	**NO**	**NOT REPORTED**	**NOTIFICATION**
PESTICIDES	**NO**	**NOT REPORTED**	**NOTIFICATION**
MERCURY CONTAINING EQUIPMENT	**NO**	**NOT REPORTED**	**NOTIFICATION**

CORRECTIVE ACTION AREA **- NO CORECTIVE ACTION AREA INFORMATION REPORTED -**

CORRECTIVE ACTION EVENT **- NO CORECTIVE ACTION EVENT REPORTED -**

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MAP ID# 6 **Distance from Property: 0.20 mi. NW**

SITE INFORMATION

PERMIT NUMBER: **2GC02992*AG**
NAME: **KOESTER CORPORATION**
ADDRESS: **1650 COMMERCE DR NAPOLEON, OH 43545**
COUNTY: **HENRY**
APPLICATION NAME: **RUPP/ROSEBROCK INC**
APPLICATION ADDRESS: **7464 US HIGHWAY 24 LIBERTY CENTER, OH 43532**
ISSUE DATE: **09/22/11**
TYPE: **CONSTRUCTION**

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MAP ID# 7 **Distance from Property: 0.21 mi. SE**

SITE INFORMATION

GS ID: **35000059*LUST**

NAME: **CAMPBELL SOUP CO.**

ADDRESS: **E MAUMEE AVE**
NAPOLEON, OH 43545

COUNTY: **HENRY**

SITE DETAILS

RELEASE ID: **35000059-N00001**

LEAKING TANK FUND ELIGIBILITY STATUS:
6 CLOSURE OF REGULATED UST

FR STATUS: **NFA: NO FURTHER ACTION**

RELEASE DATE: **NOT REPORTED**

FACILITY STATUS: **INACTIVE**

CLASS DESCRIPTION: **A VIABLE RP HAS BEEN IDENTIFIED**

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National Pollutant Discharge Elimination System Permits (NPDES)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

SITE INFORMATION

PERMIT NUMBER: **2GC01283*AG**
NAME: **CAMPBELL SOUP WHSE**
ADDRESS: **EAST MAUMEE AVE NAPOLEON, OH 43545**
COUNTY: **HENRY**
APPLICATION NAME: **CAMPBELL SOUP SUPPLY CO LLC**
APPLICATION ADDRESS: **EAST MAUMEE AVE NAPOLEON, OH 43545**
ISSUE DATE: **05/16/06**
TYPE: **CONSTRUCTION**

Back to Report Summary

National Pollutant Discharge Elimination System Permits (NPDES)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

SITE INFORMATION

PERMIT NUMBER: **2GC00474*AG**
NAME: **BLOW MOLDING FAC**
ADDRESS: **12771 ST RT 110 NAPOLEON, OH 43545**
COUNTY: **HENRY**
APPLICATION NAME: **CAMPBELL SOUP SUPPLY CO**
APPLICATION ADDRESS: **E MAUMEE AVE NAPOLEON, OH 43545**
ISSUE DATE: **06/15/04**
TYPE: **CONSTRUCTION**

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National Pollutant Discharge Elimination System Permits (NPDES)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

SITE INFORMATION

PERMIT NUMBER: **2GC03151*AG**
NAME: **CAMPBELL SOUP SUPPLY CO NAPOLEON PLANT**
ADDRESS: **12-773 SR 110 NAPOLEON, OH 43545**
COUNTY: **HENRY**
APPLICATION NAME: **CAMPBELL SOUP SUPPLY CO LLC**
APPLICATION ADDRESS: **12-773 SR 110-PO BOX 311 NAPOLEON, OH 43545**
ISSUE DATE: **05/03/12**
TYPE: **CONSTRUCTION**

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MAP ID# 7 **Distance from Property: 0.21 mi. SE**

SITE INFORMATION

PERMIT NUMBER: **2GC02615*AG**
NAME: **CAMPBELL SOUP SUPPLY CO LLC-NAPOLEON PL**
ADDRESS: **12-773 SR 110 NAPOLEON, OH 43545**
COUNTY: **HENRY**
APPLICATION NAME: **CAMPBELL SOUP SUPPLY CO LLC**
APPLICATION ADDRESS: **12-773 SR 110 NAPOLEON, OH 43545**
ISSUE DATE: **03/24/10**
TYPE: **CONSTRUCTION**

Back to Report Summary

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

SITE INFORMATION

FACILITY ID: **35000059**

NAME: **CAMPBELL SOUP CO.**

ADDRESS: **E MAUMEE AVE**
NAPOLEON OH 43545

COUNTY: **HENRY**

FACILITY TYPE: **COMMERCIAL**

OWNER INFORMATION

NAME: **NOT REPORTED**

ADDRESS: **NOT REPORTED**

TANK INFORMATION

TANK NUMBER:	INSTALLATION DATE:	TANK CONTENT:	CAPACITY:	CONSTRUCTION:	STATUS:
T00001	**7/1/1989**	**UNKNOWN**	**5000**	**BM - BARE METAL**	**REM - REMOVED**
T00002	**7/1/1989**	**UNKNOWN**	**5000**	**BM - BARE METAL**	**REM - REMOVED**

Back to Report Summary

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

SITE INFORMATION

UNIQUE ID: **1017274**
PLANT ID: **1017274**
NAME: **SILGAN CAN COMPANY**
ADDRESS: **12-733 ST ROUTE 110**
NAPOLEON, OH 43545
CLASSIFICATION: **ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS.**
OPERATION STATUS: **OPERATING**
STATE COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
FACILITY TYPE: **PRIVATELY OWNED/OPERATED**
CURRENT HIGH PRIORITY VIOLATOR: **NOT REPORTED**
SIC DESCRIPTION: **ESTABLISHMENTS PRIMARILY ENGAGED IN MANUFACTURING METAL CANS FROM PURCHASED MATERIALS.**

ENFORCEMENT ACTIONS

DATE ACHIEVED: **05/10/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/06/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/11/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **02/14/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/06/2012**
DATE RECORDED: **12/31/2012**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL HYDROCARBONS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/06/2012**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/05/2012**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/05/2012**
DATE RECORDED: **12/31/2012**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL NON-METHANE ORGANIC COMPOUNDS**

ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/05/2012**
DATE RECORDED: **12/31/2012**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL NON-METHANE ORGANIC COMPOUNDS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/03/2012**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/27/2012**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/29/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/27/2011**
DATE RECORDED: **02/13/2014**

NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/20/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/12/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/03/2010**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/14/2010**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/17/2009**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/10/2009**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/01/2009**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/29/2009**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/24/2008**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**

POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/21/2008**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/21/2007**
DATE RECORDED: **05/03/2008**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL HYDROCARBONS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/21/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/20/2007**
DATE RECORDED: **05/03/2008**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL NON-METHANE ORGANIC COMPOUNDS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/20/2007**

DATE RECORDED: **05/03/2008**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL NON-METHANE ORGANIC COMPOUNDS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/20/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/30/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/16/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/14/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**

PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/31/2006**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/21/2005**
DATE RECORDED: **06/24/2005**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY EPA**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/05/2005**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/21/2005**
DATE RECORDED: **06/24/2005**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERT DUE/RECEIVED BY EPA**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/10/2005**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**

RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/09/2005**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/14/2004**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/13/2004**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/06/2004**
DATE RECORDED: **11/09/2004**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERT DUE/RECEIVED BY EPA**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **02/09/2004**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/25/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/09/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/26/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/05/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**

TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/03/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/03/2003**
DATE RECORDED: **12/20/2003**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **VOLATILE ORGANIC COMPOUNDS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/03/2003**
DATE RECORDED: **11/25/2003**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **VOLATILE ORGANIC COMPOUNDS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/01/2003**
DATE RECORDED: **11/25/2003**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **VOLATILE ORGANIC COMPOUNDS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/01/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**

ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/01/2003**
DATE RECORDED: **12/20/2003**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **VOLATILE ORGANIC COMPOUNDS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/01/2003**
DATE RECORDED: **11/25/2003**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **VOLATILE ORGANIC COMPOUNDS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

AIR PROGRAM

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **TOTAL HAP POLLUTANT**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

HISTORICAL COMPLIANCE AIR PROGRAM LEVEL

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1003**

HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**

COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1104**

HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**

COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

Back to Report Summary

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

SITE INFORMATION

UNIQUE ID: **43633**
PLANT ID: **43633**
NAME: **CAMPBELL SOUP COMPANY**
ADDRESS: **CAMPBELL SOUP COMPANY LLC**
NAPOLEON, OH 43545
CLASSIFICATION: **ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS.**
OPERATION STATUS: **OPERATING**
STATE COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**
FACILITY TYPE: **PRIVATELY OWNED/OPERATED**
CURRENT HIGH PRIORITY VIOLATOR: **NOT REPORTED**
SIC DESCRIPTION: **ESTABLISHMENTS PRIMARILY ENGAGED IN CANNING SPECIALTY PRODUCTS, SUCH AS BABY FOODS, NATIONALITY SPECIALTY FOODS, AND SOUPS, EXCEPT SEAFOOD.**

ENFORCEMENT ACTIONS

DATE ACHIEVED: **08/21/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/20/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **07/31/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/12/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/15/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **02/14/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/22/2012**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/03/2012**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**

ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/12/2012**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/23/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/29/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/29/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/20/2011**
DATE RECORDED: **02/13/2014**

NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/21/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **10/28/2010**
DATE RECORDED: **04/20/2011**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **NITROGEN DIOXIDE**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **10/28/2010**
DATE RECORDED: **04/20/2011**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **NITRIC OXIDE**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **10/28/2010**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **10/28/2010**
DATE RECORDED: **04/20/2011**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **CARBON MONOXIDE**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/03/2010**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/09/2010**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/17/2009**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/10/2009**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**

POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/01/2009**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/13/2009**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **07/21/2008**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/21/2008**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/05/2007**

DATE RECORDED: **11/06/2007**
NATIONAL ACTION TYPE: **SV REPORTED AS ADDRESSED**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **10/26/2007**
DATE RECORDED: **11/06/2007**
NATIONAL ACTION TYPE: **VIOLATION RESOLVED**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **10/26/2007**
DATE RECORDED: **11/06/2007**
NATIONAL ACTION TYPE: **COMPL BY STATE, NO ACT REQ**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **10/26/2007**
DATE RECORDED: **11/06/2007**
NATIONAL ACTION TYPE: **FINAL COMPLIANCE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/30/2007**
DATE RECORDED: **08/20/2007**
NATIONAL ACTION TYPE: **STATE DAY ZERO**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **FACILITY-WIDE PERMIT REQUIREMENTS**
TYPE OF VIOLATION(S): **NOT REPORTED**

PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/02/2007**
DATE RECORDED: **10/04/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL PARTICULATE MATTER**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/02/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/02/2007**
DATE RECORDED: **10/04/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/02/2007**
DATE RECORDED: **10/04/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL PARTICULATE MATTER**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/02/2007**
DATE RECORDED: **10/04/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**

RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/02/2007**
DATE RECORDED: **08/20/2007**
NATIONAL ACTION TYPE: **STATE REPORTED AS ADDED**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **07/17/2007**
DATE RECORDED: **08/20/2007**
NATIONAL ACTION TYPE: **STATE NOV ISSUED**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/11/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/25/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/20/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/20/2007**
DATE RECORDED: **08/01/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL PARTICULATE MATTER**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/12/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/12/2007**
DATE RECORDED: **08/01/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL PARTICULATE MATTER**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/11/2007**
DATE RECORDED: **08/01/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL PARTICULATE MATTER**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**

TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/11/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/10/2007**
DATE RECORDED: **08/01/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST FAILED**
POLLUTANT: **TOTAL PARTICULATE MATTER**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/10/2007**
DATE RECORDED: **08/01/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST FAILED**
POLLUTANT: **TOTAL PARTICULATE MATTER**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/10/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/14/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**

ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/08/2006**
DATE RECORDED: **03/28/2007**
NATIONAL ACTION TYPE: **EPA PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **10/13/2006**
DATE RECORDED: **12/12/2006**
NATIONAL ACTION TYPE: **EPA SECTION 114 LETTER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **TOTAL PARTICULATE MATTER**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/17/2006**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/01/2006**
DATE RECORDED: **06/19/2006**
NATIONAL ACTION TYPE: **EPA PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/15/2006**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/14/2005**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/24/2004**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/29/2004**
DATE RECORDED: **11/09/2004**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERT DUE/RECEIVED BY EPA**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/03/2004**
DATE RECORDED: **04/02/2004**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY EPA**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **UNKNOWN CMST**
POLLUTANT: **NOT REPORTED**

ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **02/11/2004**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/25/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/11/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/26/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/05/2003**
DATE RECORDED: **02/13/2014**

NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/20/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/02/2003**
DATE RECORDED: **10/06/2004**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERT DUE/RECEIVED BY EPA**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **10/30/2002**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/26/2002**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/08/2002**
DATE RECORDED: **05/08/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL PARTICULATE MATTER**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/08/2002**
DATE RECORDED: **05/08/2007**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **TOTAL PARTICULATE MATTER**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **12/10/2001**
DATE RECORDED: **01/13/2003**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/22/1997**
DATE RECORDED: **11/10/1997**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **01/05/1995**
DATE RECORDED: **06/25/1998**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**

POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **12/07/1994**
DATE RECORDED: **06/23/1998**
NATIONAL ACTION TYPE: **ST SOURCE TEST CONDUCTED**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **07/25/1991**
DATE RECORDED: **12/17/1991**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/13/1990**
DATE RECORDED: **12/18/1990**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/13/1989**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/25/1988**

DATE RECORDED: **07/25/1992**
NATIONAL ACTION TYPE: **ST SOURCE TEST CONDUCTED**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/24/1988**
DATE RECORDED: **07/25/1992**
NATIONAL ACTION TYPE: **ST SOURCE TEST CONDUCTED**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **02/26/1988**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/30/1986**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/03/1985**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**

PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/24/1984**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/07/1984**
DATE RECORDED: **07/25/1992**
NATIONAL ACTION TYPE: **ST SOURCE TEST CONDUCTED**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **12/31/1983**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **FINAL COMPLIANCE**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **07/22/1983**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/16/1982**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **STATE NOV ISSUED**
ALL AIR PROGRAM: **SIP SOURCE**

RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/07/1982**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **STATE INSPECTION - LEVEL 2 OR GREATER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **08/11/1980**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **FINAL COMPLIANCE**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/18/1977**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **NOV ISSUED**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **07/11/1977**
DATE RECORDED: **03/14/1990**
NATIONAL ACTION TYPE: **EPA SECTION 114 LETTER**
ALL AIR PROGRAM: **SIP SOURCE**
RESULTS OF STACK TEST AND TITLE V: **ACTION ACHIEVED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

AIR PROGRAM

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **TOTAL HAP POLLUTANT**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **CARBON MONOXIDE**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **NITROGEN DIOXIDE**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **TOTAL PARTICULATE MATTER**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **SULFUR DIOXIDE**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **VOLATILE ORGANIC COMPOUNDS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **NOT REPORTED**

HISTORICAL COMPLIANCE AIR PROGRAM LEVEL

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**

COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0701**

HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**

COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1204**

HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**

COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1302**

HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**

COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - CERTIFICATION**

Back to Report Summary

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

HANDLER IDENTIFICATION: **OHR000029223**
SITENAME: **SILGAN CAN CO**
ADDRESS: **12-773 STATE ROUTE 110 SUITE 1**
NAPOLEON, OH 43545
REPORTED YEARS: **2011, 2009, 2007, 2005, 2003, 2001**

WASTE INFORMATION LAST REPORTED YEAR: **2011**

MANAGEMENT LOCATION: **OFFSITE**
SOURCE CODE DESCRIPTION:
PAINTING AND COATING (MANUFACTURING, BUILDING, OR MAINTENANCE)
FORM CODE DESCRIPTION:
W209 - PAINT, INK, LACQUER, OR VARNISH (FLUID ? NOT DRIED OUT OR SLUDGE)
MANAGEMENT DESCRIPTION:
H020 - SOLVENTS RECOVERY (DISTILLATION, EXTRACTION, ETC)
GENERATOR ID INCLUDED IN NBR: **YES**
GENERATOR WASTE STREAM INCLUDED IN NBR: **YES**
QUANITITY GENERATED IN TONS: **.78**
MANAGER ID INCLUDED IN NBR: **NO**
MANAGER WASTE STREAM INCLUDED IN NBR: **NO**
QUANITITY MANAGED IN TONS: **0**
SHIPPER ID INCLUDED IN NBR: **YES**
SHIPPER WASTE STREAM INCLUDED IN NBR: **YES**
SHIPPER ID: **OHR000029223**
SHIPPER STATE: **OHIO**
QUANITITY SHIPPED IN TONS: **.78**
RECEIVER ID INCLUDED IN NBR: **NO**
RECEIVER WASTE STREAM INCLUDED IN NBR: **NO**
RECEIVER ID: **IND000646943**
RECEIVER STATE: **INDIANA**
QUANITITY RECEIVED IN TONS: **0**
FEDERAL WASTE: **YES**
WASTEWATER CHARACTERISTIC INDICATOR: **NO**
WASTE DESCRIPTION SIC: **332431 -**
WASTE MINIMIZATION CODE DESCRIPTION:
X - NO WASTE MINIMIZATION EFFORTS WERE IMPLEMENTED FOR THIS WASTE
WASTE CODE DESCRIPTION: **F003 - THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.**

MANAGEMENT LOCATION: **OFFSITE**
SOURCE CODE DESCRIPTION:
PAINTING AND COATING (MANUFACTURING, BUILDING, OR MAINTENANCE)
FORM CODE DESCRIPTION:
W209 - PAINT, INK, LACQUER, OR VARNISH (FLUID ? NOT DRIED OUT OR SLUDGE)
MANAGEMENT DESCRIPTION:
H061 - FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE (WASTE GENERATED EITHER ON-SITE OR RECEIVED FROM OFF-SITE)
GENERATOR ID INCLUDED IN NBR: **YES**
GENERATOR WASTE STREAM INCLUDED IN NBR: **YES**
QUANITITY GENERATED IN TONS: **.05**
MANAGER ID INCLUDED IN NBR: **NO**
MANAGER WASTE STREAM INCLUDED IN NBR: **NO**
QUANITITY MANAGED IN TONS: **0**
SHIPPER ID INCLUDED IN NBR: **YES**
SHIPPER WASTE STREAM INCLUDED IN NBR: **YES**
SHIPPER ID: **OHR000029223**
SHIPPER STATE: **OHIO**
QUANITITY SHIPPED IN TONS: **.05**
RECEIVER ID INCLUDED IN NBR: **NO**
RECEIVER WASTE STREAM INCLUDED IN NBR: **NO**
RECEIVER ID: **IND000646943**
RECEIVER STATE: **INDIANA**
QUANITITY RECEIVED IN TONS: **0**
FEDERAL WASTE: **YES**
WASTEWATER CHARACTERISTIC INDICATOR: **NO**
WASTE DESCRIPTION SIC: **332431 -**
WASTE MINIMIZATION CODE DESCRIPTION:
X - NO WASTE MINIMIZATION EFFORTS WERE IMPLEMENTED FOR THIS WASTE
WASTE CODE DESCRIPTION: **F1_5 -**

MANAGEMENT LOCATION: **OFFSITE**
SOURCE CODE DESCRIPTION:
PAINTING AND COATING (MANUFACTURING, BUILDING, OR MAINTENANCE)
FORM CODE DESCRIPTION:
W209 - PAINT, INK, LACQUER, OR VARNISH (FLUID ? NOT DRIED OUT OR SLUDGE)
MANAGEMENT DESCRIPTION:
H061 - FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE (WASTE GENERATED EITHER ON-SITE OR RECEIVED FROM OFF-SITE)
GENERATOR ID INCLUDED IN NBR: **YES**
GENERATOR WASTE STREAM INCLUDED IN NBR: **YES**
QUANITITY GENERATED IN TONS: **7.22**
MANAGER ID INCLUDED IN NBR: **NO**
MANAGER WASTE STREAM INCLUDED IN NBR: **NO**
QUANITITY MANAGED IN TONS: **0**
SHIPPER ID INCLUDED IN NBR: **YES**
SHIPPER WASTE STREAM INCLUDED IN NBR: **YES**

SHIPPER ID: **OHR000029223**
SHIPPER STATE: **OHIO**
QUANITITY SHIPPED IN TONS: **7.22**
RECEIVER ID INCLUDED IN NBR: **NO**
RECEIVER WASTE STREAM INCLUDED IN NBR: **NO**
RECEIVER ID: **IND000646943**
RECEIVER STATE: **INDIANA**
QUANITITY RECEIVED IN TONS: **0**
FEDERAL WASTE: **YES**
WASTEWATER CHARACTERISTIC INDICATOR: **NO**
WASTE DESCRIPTION SIC: **332431 -**
WASTE MINIMIZATION CODE DESCRIPTION:
X - NO WASTE MINIMIZATION EFFORTS WERE IMPLEMENTED FOR THIS WASTE
WASTE CODE DESCRIPTION: **F003 - THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.**

MANAGEMENT LOCATION: **OFFSITE**
SOURCE CODE DESCRIPTION:
DISCARDING OFF-SPECIFICATION, OUT-OF-DATE, AND/OR UNUSED CHEMICALS OR PRODUCTS
FORM CODE DESCRIPTION:
W209 - PAINT, INK, LACQUER, OR VARNISH (FLUID ? NOT DRIED OUT OR SLUDGE)
MANAGEMENT DESCRIPTION:
H061 - FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE (WASTE GENERATED EITHER ON-SITE OR RECEIVED FROM OFF-SITE)
GENERATOR ID INCLUDED IN NBR: **YES**
GENERATOR WASTE STREAM INCLUDED IN NBR: **YES**
QUANITITY GENERATED IN TONS: **3.244**
MANAGER ID INCLUDED IN NBR: **NO**
MANAGER WASTE STREAM INCLUDED IN NBR: **NO**
QUANITITY MANAGED IN TONS: **0**
SHIPPER ID INCLUDED IN NBR: **YES**
SHIPPER WASTE STREAM INCLUDED IN NBR: **YES**
SHIPPER ID: **OHR000029223**
SHIPPER STATE: **OHIO**
QUANITITY SHIPPED IN TONS: **3.244**
RECEIVER ID INCLUDED IN NBR: **NO**
RECEIVER WASTE STREAM INCLUDED IN NBR: **NO**
RECEIVER ID: **IND000646943**
RECEIVER STATE: **INDIANA**
QUANITITY RECEIVED IN TONS: **0**
FEDERAL WASTE: **YES**
WASTEWATER CHARACTERISTIC INDICATOR: **NO**

WASTE DESCRIPTION SIC: **332431 -**
WASTE MINIMIZATION CODE DESCRIPTION:
X - NO WASTE MINIMIZATION EFFORTS WERE IMPLEMENTED FOR THIS WASTE
WASTE CODE DESCRIPTION: **D001 - IGNITABLE WASTE**

MANAGEMENT LOCATION: **OFFSITE**
SOURCE CODE DESCRIPTION:
PAINTING AND COATING (MANUFACTURING, BUILDING, OR MAINTENANCE)
FORM CODE DESCRIPTION:
W209 - PAINT, INK, LACQUER, OR VARNISH (FLUID ? NOT DRIED OUT OR SLUDGE)
MANAGEMENT DESCRIPTION:
H061 - FUEL BLENDING PRIOR TO ENERGY RECOVERY AT ANOTHER SITE (WASTE GENERATED EITHER ON-SITE OR RECEIVED FROM OFF-SITE)
GENERATOR ID INCLUDED IN NBR: **YES**
GENERATOR WASTE STREAM INCLUDED IN NBR: **YES**
QUANITITY GENERATED IN TONS: **.4275**
MANAGER ID INCLUDED IN NBR: **NO**
MANAGER WASTE STREAM INCLUDED IN NBR: **NO**
QUANITITY MANAGED IN TONS: **0**
SHIPPER ID INCLUDED IN NBR: **YES**
SHIPPER WASTE STREAM INCLUDED IN NBR: **YES**
SHIPPER ID: **OHR000029223**
SHIPPER STATE: **OHIO**
QUANITITY SHIPPED IN TONS: **.4275**
RECEIVER ID INCLUDED IN NBR: **NO**
RECEIVER WASTE STREAM INCLUDED IN NBR: **NO**
RECEIVER ID: **IND000646943**
RECEIVER STATE: **INDIANA**
QUANITITY RECEIVED IN TONS: **0**
FEDERAL WASTE: **YES**
WASTEWATER CHARACTERISTIC INDICATOR: **NO**
WASTE DESCRIPTION SIC: **332431 -**
WASTE MINIMIZATION CODE DESCRIPTION:
X - NO WASTE MINIMIZATION EFFORTS WERE IMPLEMENTED FOR THIS WASTE
WASTE CODE DESCRIPTION: **D001 - IGNITABLE WASTE**

MANAGEMENT LOCATION: **OFFSITE**
SOURCE CODE DESCRIPTION:
PAINTING AND COATING (MANUFACTURING, BUILDING, OR MAINTENANCE)
FORM CODE DESCRIPTION:
W209 - PAINT, INK, LACQUER, OR VARNISH (FLUID ? NOT DRIED OUT OR SLUDGE)
MANAGEMENT DESCRIPTION:
H141 - THE SITE RECEIVING THIS WASTE STORED/BULKED AND TRANSFERRED THE WASTE WITH NO TREATMENT OR RECOVERY (H010-H129), FUEL BLENDING (H061), OR DISPOSAL (H131-H135) AT THAT RECEIVING SITE. DO NOT USE THIS CODE ON GM FORM IN SECTION 1- ITEM D OR IN SECTION 2.
GENERATOR ID INCLUDED IN NBR: **YES**
GENERATOR WASTE STREAM INCLUDED IN NBR: **YES**

QUANITITY GENERATED IN TONS: **21.84**
MANAGER ID INCLUDED IN NBR: **NO**
MANAGER WASTE STREAM INCLUDED IN NBR: **NO**
QUANITITY MANAGED IN TONS: **0**
SHIPPER ID INCLUDED IN NBR: **YES**
SHIPPER WASTE STREAM INCLUDED IN NBR: **YES**
SHIPPER ID: **OHR000029223**
SHIPPER STATE: **OHIO**
QUANITITY SHIPPED IN TONS: **21.84**
RECEIVER ID INCLUDED IN NBR: **NO**
RECEIVER WASTE STREAM INCLUDED IN NBR: **NO**
RECEIVER ID: **IND000646943**
RECEIVER STATE: **INDIANA**
QUANITITY RECEIVED IN TONS: **0**
FEDERAL WASTE: **YES**
WASTEWATER CHARACTERISTIC INDICATOR: **NO**
WASTE DESCRIPTION SIC: **332431 -**
WASTE MINIMIZATION CODE DESCRIPTION:
X - NO WASTE MINIMIZATION EFFORTS WERE IMPLEMENTED FOR THIS WASTE
WASTE CODE DESCRIPTION: **TCORICR -**

Back to Report Summary

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

INCIDENT INFORMATION

GSID#: **405624**
NRC ID#: **405624**
INCIDENT LOCATION: **NOT REPORTED**
INCIDENT ADDRESS: **12-773 STATE ROUTE 110 BEVERAGE PLANT**
NAPOLEON, OH 43545
INCIDENT COUNTY: **HENRY**

INCIDENT DETAILS

INCIDENT DATE: **9/29/1997 1:00:00 PM**
INCIDENT CAUSE: **EQUIPMENT FAILURE**
INCIDENT TYPE: **FIXED**
INCIDENT OCCURED/DISCOVERED: **OCCURRED**
INCIDENT DESCRIPTION: **NIPPLE IN CHILLER UNIT / NIPPLE FAILURE**

RESPONSIBLE PARTY

RESPONSIBLE COMPANY: **CAMPBELL SOUP CO**
ADDRESS: **ADDRESS NOT REPORTED**
NAPOLEON OH 43545
RESPONSIBLE COMPANY ORGANIZATION TYPE: **PRIVATE ENTERPRISE**

MATERIALS INVOLVED

CHRIS CODE: **RFG**
MATERIAL REACHED WATER: **YES**
WATER AMOUNT: **UNKNOWN AMOUNT / NOT REPORTED**
MATERIAL RELEASED/AMOUNT: **REFRIGERANT GASES / 1500 POUND(S)**

OTHER MATERIALS INVOLVED

- NO OTHER MATERIALS INVOLVED -

REMEDIAL ACTION

REMEDIAL ACTION: **FIXED LEAK / RECHARGED SYSTEM**

Back to Report Summary

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

REGISTRY ID: **110000383736**

NAME: **CAMPBELL SOUP SUPPLY CO LLC**

LOCATION ADDRESS: **12-773 STATE ROUTE 110**
NAPOLEON, OH 43545-5898

COUNTY: **HENRY**

EPA REGION: **05**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

CAMPBELL SOUP COMPANY
CAMPBELL SOUP *
CAMPBELL SOUP COMPANY
CAMPBELL SOUP CO.
CAMPBELL SOUP CO.
CAMPBELL SOUP SUPPLY CO
CAMPBELL SOUP SUPPLY COMPANY L.L.C.-NAPOLEON PLANT
CAMPBELL SOUP CO.
CAMPBELL SOUP SUPPLY CO LLC
CAMPBELL SOUP SUPPLY CO.
CAMPBELL SOUP SUPPLY CO.

PROGRAM/S LISTED FOR THIS FACILITY

AIRS/AFS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIRS FACILITY SYSTEM
AIRS/AQS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR QUALITY SYSTEM
NEI - NATIONAL EMISSIONS INVENTORY
NPDES - NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
OH-CORE - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
PCS - PERMIT COMPLIANCE SYSTEM
RBLC - RACT/BACT/LAER CLEARINGHOUSE
RCRAINFO - RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM
RMP - RISK MANAGEMENT PLAN
TRIS - TOXIC CHEMICAL RELEASE INVENTORY SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

2032 - CANNED SPECIALTIES
2032 - CANNED SPECIALTIES
2034 - DRIED AND DEHYDRATED FRUITS, VEGETABLES, AND SOUP MIXES
2091 - CANNED AND CURED FISH AND SEAFOODS
2032 - CANNED SPECIALTIES
2091 - CANNED AND CURED FISH AND SEAFOODS

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

311422 - SPECIALTY CANNING.
311422 - SPECIALTY CANNING.
311999 - ALL OTHER MISCELLANEOUS FOOD MANUFACTURING.
311422 - SPECIALTY CANNING.

311711 - SEAFOOD CANNING.

311422 - SPECIALTY CANNING.

311422 - SPECIALTY CANNING.

Back to Report Summary

Facility Registry System (FRSOH)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

REGISTRY ID: **110006108942**

NAME: **CAMPBELL SOUP PLANT**

LOCATION ADDRESS: **12773 TOWNSHIP ROAD P3**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

CAMPBELL SOUP CO.
CAMPBELL SOUP COMPANY
CAMPBELL SOUP COMPANY (0335010105)
CAMPBELL SOUP *
CAMPBELL SOUP CO.
CAMPBELL SOUP COMPANY
CAMPBELL SOUP SUPPLY CO.
CAMPBELL SOUP COMPANY
CAMPBELL SOUP SUPPLY CO
CAMPBELL SOUP SUPPLY CO.
CAMPBELLS FRESH INC
CAMPBELL SOUP SUPPLY CO LLC
CAMPBELL'S FRESH, IC.
CAMPBELL'S FRESH, IC.
CAMPBELL SOUP CO.
CAMPBELL SOUP CO
CAMPBELL SOUP SUPPLY CO

PROGRAM/S LISTED FOR THIS FACILITY

RBLC - RACT/BACT/LAER CLEARINGHOUSE
NEI - NATIONAL EMISSIONS INVENTORY
AIRS/AQS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR QUALITY SYSTEM
AIRS/AFS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIRS FACILITY SYSTEM
E-GGRT - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
NCDB - NATIONAL COMPLIANCE DATABASE SYSTEM
NCDB - NATIONAL COMPLIANCE DATABASE SYSTEM
NCDB - NATIONAL COMPLIANCE DATABASE SYSTEM
OH-CORE - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
PCS - PERMIT COMPLIANCE SYSTEM
TRIS - TOXIC CHEMICAL RELEASE INVENTORY SYSTEM
OH-CORE - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
RCRAINFO - RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM
RCRAINFO - RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM
EIS - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
NPDES - NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

2032 - CANNED SPECIALTIES

2032 - CANNED SPECIALTIES

2034 - DRIED AND DEHYDRATED FRUITS, VEGETABLES, AND SOUP MIXES

2091 - CANNED AND CURED FISH AND SEAFOODS

2091 - CANNED AND CURED FISH AND SEAFOODS

2032 - CANNED SPECIALTIES

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

311999 - ALL OTHER MISCELLANEOUS FOOD MANUFACTURING.

311422 - SPECIALTY CANNING.

311422 - SPECIALTY CANNING.

311422 - SPECIALTY CANNING.

311422 - SPECIALTY CANNING.

54138 - TESTING LABORATORIES

311711 - SEAFOOD CANNING.

311422 - SPECIALTY CANNING.

311422 - SPECIALTY CANNING.

Back to Report Summary

Facility Registry System (FRSOH)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

REGISTRY ID: **110045006159**

NAME: **NAPOLEON SOLAR I**

LOCATION ADDRESS: **12733 STATE ROUTE 110**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

NAPOLEON SOLAR I

PROGRAM/S LISTED FOR THIS FACILITY

EIA-860 - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

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MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

REGISTRY ID: **110000741742**

NAME: **SILGAN CAN CO**

LOCATION ADDRESS: **12-773 STATE ROUTE 110**
NAPOLEON, OH 43545-5898

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

SILGAN CAN COMPANY
SILGAN CAN CO
SILGAN CAN CO
SILGAN CAN CO.
SILGAN CAN CO *
SILGAN CONTAINERS MFG. CORP.
SILGAN CAN COMPANY
SILGAN CAN CO

PROGRAM/S LISTED FOR THIS FACILITY

EIS - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
BR - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
AIRS/AFS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIRS FACILITY SYSTEM
TRIS - TOXIC CHEMICAL RELEASE INVENTORY SYSTEM
OH-CORE - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
NEI - NATIONAL EMISSIONS INVENTORY
RCRAINFO - RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

3411 - METAL CANS
3411 - METAL CANS
3411 - METAL CANS

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

332431 - METAL CAN MANUFACTURING.
332431 - METAL CAN MANUFACTURING.
332431 - METAL CAN MANUFACTURING.
332431 - METAL CAN MANUFACTURING.
332431 - METAL CAN MANUFACTURING.

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MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

REGISTRY ID: **110041176679**

NAME: **CAMPBELL SOUP COMPANY (0335010105)**

LOCATION ADDRESS: **CAMPBELL SOUP COMPANY LLC**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **05**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

CAMPBELL SOUP COMPANY (0335010105)

CAMPBELL SOUP COMPANY

PROGRAM/S LISTED FOR THIS FACILITY

E-GGRT - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

EIS - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

311422 - SPECIALTY CANNING.

Back to Report Summary

Facility Registry System (FRSOH)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

REGISTRY ID: **110020924295**

NAME: **NOT REPORTED**

LOCATION ADDRESS: **CAMPBELL SOUP CO., HOSPITAL**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:
NO ALTERNATIVE NAME(S) LISTED FOR THIS FACILITY

PROGRAM/S LISTED FOR THIS FACILITY
AIRS/AQS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR QUALITY SYSTEM
AIRS/AQS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR QUALITY SYSTEM

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)
NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)
NO NAICS DATA REPORTED

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Integrated Compliance Information System National Pollutant Discharge Elimination System (ICISNPDES)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

PERMIT #: **OH0003298** FACILITY #: **110006108942**

NAME: **CAMPBELL SOUP COMPANY**

PHYSICAL ADDRESS: **STATE ROUTE 110**
NAPOLEON, OH 43545

PERMITTYPE / ISSUE DATE: **NPD - NPDES INDIVIDUAL PERMIT / 01/26/04**

PERMIT STATUS: **ADMINISTRATIVEY CONTINUED**

PERMIT EXPIRED: **07/31/08**

STANDARD INDUSTRIAL CLASSIFICATION

2091-ESTABLISHMENTS PRIMARILY ENGAGED IN COOKING AND CANNING FISH, SHRIMP, OYSTERS, CLAMS, CRABS, AND OTHER SEAFOODS, INCLUDING SOUPS; AND THOSE ENGAGED IN SMOKING, SALTING, DRYING, OR OTHERWISE CURING FISH AND OTHER SEAFOODS FOR THE TRADE.

INSPECTIONS

INSPECTION TYPE: **AU1 AUDIT**
LEAD AGENCY: **STATE**
INSPECTION DATE: **04/26/93**
INSPECTION TYPE: **CBI BIOMONITORING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **06/08/92**
INSPECTION TYPE: **CBI BIOMONITORING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **07/06/92**
INSPECTION TYPE: **CBI BIOMONITORING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **07/27/92**
INSPECTION TYPE: **CBI BIOMONITORING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **10/21/96**
INSPECTION TYPE: **CBI BIOMONITORING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **11/18/96**
INSPECTION TYPE: **CBI BIOMONITORING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **06/30/02**
INSPECTION TYPE: **CBI BIOMONITORING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **03/29/07**
INSPECTION TYPE: **CCP CITIZEN COMPLAINT**
LEAD AGENCY: **STATE**
INSPECTION DATE: **08/21/09**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **04/29/91**
INSPECTION TYPE: **CEI EVALUATION**

LEAD AGENCY: **STATE**
INSPECTION DATE: **09/25/92**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **08/13/93**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **12/12/94**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **06/26/96**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **11/19/96**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **12/09/97**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **04/08/02**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **05/20/03**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **06/09/05**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **12/15/05**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **05/08/07**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **02/25/08**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **08/27/08**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **03/30/09**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **05/24/10**
INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **08/24/11**

INSPECTION TYPE: **CEI EVALUATION**
LEAD AGENCY: **STATE**
INSPECTION DATE: **01/30/12**
INSPECTION TYPE: **OVS OVERSIGHT**
LEAD AGENCY: **STATE**
INSPECTION DATE: **08/27/08**
INSPECTION TYPE: **SA1 SAMPLING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **04/29/91**
INSPECTION TYPE: **SA1 SAMPLING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **09/25/92**
INSPECTION TYPE: **SA1 SAMPLING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **04/08/02**
INSPECTION TYPE: **SA1 SAMPLING**
LEAD AGENCY: **STATE**
INSPECTION DATE: **05/08/07**
INSPECTION TYPE: **TX1 TOXICS**
LEAD AGENCY: **STATE**
INSPECTION DATE: **06/09/92**
INSPECTION TYPE: **TX1 TOXICS**
LEAD AGENCY: **STATE**
INSPECTION DATE: **07/28/92**
INSPECTION TYPE: **TX1 TOXICS**
LEAD AGENCY: **STATE**
INSPECTION DATE: **10/21/96**
INSPECTION TYPE: **TX1 TOXICS**
LEAD AGENCY: **STATE**
INSPECTION DATE: **11/18/96**

HISTORIC COMPLIANCE

HISTORIC NON-CONPLIANCE QUARTER (YYYYQ):	HISTORIC NON-CONPLIANCE:
19961	**COMPLIANT (MANUAL ONLY)**
19962	**COMPLIANT (MANUAL ONLY)**
19963	**COMPLIANT (MANUAL ONLY)**
19964	**COMPLIANT (MANUAL ONLY)**
19971	**COMPLIANT (MANUAL ONLY)**
19972	**COMPLIANT (MANUAL ONLY)**
19973	**COMPLIANT (MANUAL ONLY)**
19981	**COMPLIANT (MANUAL ONLY)**
19982	**COMPLIANT (MANUAL ONLY)**
19984	**COMPLIANT (MANUAL ONLY)**
19991	**RESOLVED**
19993	**COMPLIANT (MANUAL ONLY)**
19994	**VIOLATIONS ONLY**
20004	**VIOLATIONS ONLY**
20011	**COMPLIANT (MANUAL ONLY)**

20012	**COMPLIANT (MANUAL ONLY)**
20013	**EFFLUENT VIOLATION**
20014	**EFFLUENT VIOLATION**
20021	**COMPLIANT (MANUAL ONLY)**
20044	**NOT REPORTED**
20053	**NOT REPORTED**
20054	**NOT REPORTED**
20061	**VIOLATIONS ONLY**
20062	**RESOLVED**
20064	**NOT REPORTED**
20072	**NOT REPORTED**
20073	**NOT REPORTED**
20074	**EFFLUENT VIOLATION**
20081	**RESOLVED**
20083	**NOT REPORTED**
20084	**EFFLUENT VIOLATION**
20091	**EFFLUENT VIOLATION**
20092	**RESOLVED**
20093	**NOT REPORTED**
20094	**EFFLUENT VIOLATION**
20101	**RESOLVED**
20104	**EFFLUENT VIOLATION**
20111	**EFFLUENT VIOLATION**
20112	**RESOLVED**
20113	**NOT REPORTED**
20114	**NOT REPORTED**
20121	**NOT REPORTED**
20122	**NOT REPORTED**
20123	**NOT REPORTED**

PERMIT SCHEDULE VIOLATIONS

VIOLATION ID: **NOT REPORTED**
VIOLATION TYPE: **NOT REPORTED**
VIOLATION: **NOT REPORTED**
SCHEDULE EVENT ID: **NOT REPORTED**
SCHEDULE EVENT: **NOT REPORTED**
SCHEDULE EVENT DATE: **NOT REPORTED**

DMR VIOLATIONS

VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **05/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**

MONITORING PERIOD END DATE: **06/30/2008**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **09/30/2009**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **12/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **04/30/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2007**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **12/31/2007**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **10/31/2010**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, MONITOR ONLY - OVERDUE**
MONITORING PERIOD END DATE: **08/31/2005**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **04/30/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **09/30/2005**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**

VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2010**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2011**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **01/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, MONITOR ONLY - OVERDUE**
MONITORING PERIOD END DATE: **08/31/2005**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2011**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2008**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **10/31/2007**
RNC DETECTION CODE: **OTHER VIOLATION WITH TRC**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **12/31/2007**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **03/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**

VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2008**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **04/30/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **01/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **03/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2006**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **05/31/2008**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**

RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **09/30/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **02/28/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2007**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **12/31/2007**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **11/30/2011**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **11/30/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **02/29/2012**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2010**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2008**
RNC DETECTION CODE: **NOT REPORTED**

RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2008**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2010**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2011**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2006**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **02/28/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **01/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **05/31/2012**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **10/31/2010**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **03/31/2007**

RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2009**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **12/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **02/28/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **10/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2005**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, MONITOR ONLY - OVERDUE**
MONITORING PERIOD END DATE: **08/31/2005**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **02/28/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2008**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**

MONITORING PERIOD END DATE: **05/31/2011**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **02/28/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2008**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2009**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **12/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2007**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **12/31/2007**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **02/28/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **10/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**

VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2010**
RNC DETECTION CODE: **OTHER VIOLATION WITH TRC**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2011**
VIOLATION TYPE: **D**
VIOLATION: **DMR, MONITOR ONLY - OVERDUE**
MONITORING PERIOD END DATE: **08/31/2005**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2004**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2008**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2008**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **05/31/2012**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2008**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **04/30/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**

VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2011**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **12/31/2008**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2008**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **12/31/2011**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **11/30/2011**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2004**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **05/31/2011**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**

RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **01/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **03/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2007**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **12/31/2007**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **10/31/2008**
RNC DETECTION CODE: **OTHER VIOLATION WITH TRC**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **12/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **11/30/2011**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **09/30/2009**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**

RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **12/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **04/30/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2011**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **09/30/2006**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **09/30/2008**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **01/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **04/30/2007**

RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **03/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2008**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, MONITOR ONLY - OVERDUE**
MONITORING PERIOD END DATE: **08/31/2005**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **01/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2011**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2004**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**

MONITORING PERIOD END DATE: **12/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2006**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, MONITOR ONLY - OVERDUE**
MONITORING PERIOD END DATE: **08/31/2005**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **07/31/2010**
RNC DETECTION CODE: **OTHER VIOLATION WITH TRC**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2011**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **09/30/2010**
RNC DETECTION CODE: **OTHER VIOLATION WITH TRC**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2011**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **03/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **02/28/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **03/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**

VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **09/30/2008**
RNC DETECTION CODE: **TRC LIMITATIONS EXCEEDED**
RNC RESOLUTION CODE: **RE - BACK INTO COMPLIANCE**
RNC RESOLUTION DATE: **01/31/2009**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **08/31/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **06/30/2009**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **12/31/2008**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, MONITOR ONLY - OVERDUE**
MONITORING PERIOD END DATE: **08/31/2005**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **04/30/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**
VIOLATION TYPE: **D**
VIOLATION: **DMR, LIMITED - NUMERIC VIOLATION**
MONITORING PERIOD END DATE: **01/31/2007**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**

COMPLIANCE SCHEDULE VIOLATIONS

VIOLATION ID: **NOT REPORTED**
VIOLATION TYPE: **NOT REPORTED**
VIOLATION: **NOT REPORTED**
SCHEDULE EVENT ID: **NOT REPORTED**
SCHEDULE EVENT: **NOT REPORTED**

SCHEDULE EVENT DATE: **NOT REPORTED**
RNC DETECTION CODE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**

SINGLE EVENT VIOLATIONS

VIOLATION ID: **NOT REPORTED**
VIOLATION TYPE: **NOT REPORTED**
VIOLATION: **NOT REPORTED**
RNC DETECTION CODE: **NOT REPORTED**
RNC DETECTION DATE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**

INFORMAL ENFORCEMENT ACTIONS

ENFORCEMENT IDENTIFIER: **OH-200071031**
ENFORCEMENT TYPE: **NOTICE OF VIOLATION**
EARLIEST SETTLEMENT ENTERED DATE: **06/14/12**
ENFORCEMENT TYPE: **STATE**
TOTAL FEDERAL PENALTY ASSESSED: **NOT REPORTED**
TOTAL STATE LOCAL PENALTY: **NOT REPORTED**
ENFORCEMENT IDENTIFIER: **OH-N00003812**
ENFORCEMENT TYPE: **LETTER OF VIOLATION/ WARNING LETTER**
EARLIEST SETTLEMENT ENTERED DATE: **02/22/91**
ENFORCEMENT TYPE: **STATE**
TOTAL FEDERAL PENALTY ASSESSED: **NOT REPORTED**
TOTAL STATE LOCAL PENALTY: **NOT REPORTED**
ENFORCEMENT IDENTIFIER: **OH-N00005580**
ENFORCEMENT TYPE: **LETTER OF VIOLATION/ WARNING LETTER**
EARLIEST SETTLEMENT ENTERED DATE: **07/31/91**
ENFORCEMENT TYPE: **STATE**
TOTAL FEDERAL PENALTY ASSESSED: **NOT REPORTED**
TOTAL STATE LOCAL PENALTY: **NOT REPORTED**
ENFORCEMENT IDENTIFIER: **OH-N00005581**
ENFORCEMENT TYPE: **LETTER OF VIOLATION/ WARNING LETTER**
EARLIEST SETTLEMENT ENTERED DATE: **10/28/91**
ENFORCEMENT TYPE: **STATE**
TOTAL FEDERAL PENALTY ASSESSED: **NOT REPORTED**
TOTAL STATE LOCAL PENALTY: **NOT REPORTED**
ENFORCEMENT IDENTIFIER: **OH-N00005587**
ENFORCEMENT TYPE: **LETTER OF VIOLATION/ WARNING LETTER**
EARLIEST SETTLEMENT ENTERED DATE: **09/17/92**
ENFORCEMENT TYPE: **STATE**
TOTAL FEDERAL PENALTY ASSESSED: **NOT REPORTED**
TOTAL STATE LOCAL PENALTY: **NOT REPORTED**
ENFORCEMENT IDENTIFIER: **OH-N00006529**
ENFORCEMENT TYPE: **LETTER OF VIOLATION/ WARNING LETTER**
EARLIEST SETTLEMENT ENTERED DATE: **06/17/97**
ENFORCEMENT TYPE: **STATE**
TOTAL FEDERAL PENALTY ASSESSED: **NOT REPORTED**

TOTAL STATE LOCAL PENALTY: **NOT REPORTED**
ENFORCEMENT IDENTIFIER: **OH-N00006622**
ENFORCEMENT TYPE: **LETTER OF VIOLATION/ WARNING LETTER**
EARLIEST SETTLEMENT ENTERED DATE: **01/21/97**
ENFORCEMENT TYPE: **STATE**
TOTAL FEDERAL PENALTY ASSESSED: **NOT REPORTED**
TOTAL STATE LOCAL PENALTY: **NOT REPORTED**
ENFORCEMENT IDENTIFIER: **OH-N00008607**
ENFORCEMENT TYPE: **LETTER OF VIOLATION/ WARNING LETTER**
EARLIEST SETTLEMENT ENTERED DATE: **11/21/07**
ENFORCEMENT TYPE: **STATE**
TOTAL FEDERAL PENALTY ASSESSED: **NOT REPORTED**
TOTAL STATE LOCAL PENALTY: **NOT REPORTED**

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Material Licensing Tracking System (MLTS)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

GS ID: **34-13219-01**
LICENSE NUMBER: **34-13219-01**
APPLICANT NAME: **CAMPBELL SOUP COMPANY**
INSTITUTION CODE: **13219**
ADDRESS: **EAST MAUMEE AVENUE**
NAPOLEON, OH 43545

LICENSE INFORMATION

ORGANISATION GROUP REQUESTING LICENSE: **NOT REPORTED**
DATE 1ST LICENSE ISSUED: **NOT REPORTED**
LICENSE ISSUE DATE: **04/12/85**
DATE OF LICENSE EXPIRATION: **04/30/90**
CONTACT NAME: **NOT REPORTED**
CONTACT PHONE: **NOT REPORTED**
LAST INSPECTION (YYYYMM): **08/01/90**
INSPECTION NAME: **NOT REPORTED**
NEXT INSPECTION (YYYYMM): **NOT REPORTED**

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Material Licensing Tracking System (MLTS)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

GS ID: **34-13219-02**
LICENSE NUMBER: **34-13219-02**
APPLICANT NAME: **CAMPBELL SOUP COMPANY**
INSTITUTION CODE: **13219**
ADDRESS: **E. MAUMEE AVENUE**
NAPOLEON, OH 43545

LICENSE INFORMATION

ORGANISATION GROUP REQUESTING LICENSE: **NOT REPORTED**
DATE 1ST LICENSE ISSUED: **NOT REPORTED**
LICENSE ISSUE DATE: **08/08/90**
DATE OF LICENSE EXPIRATION: **10/31/95**
CONTACT NAME: **JORDAN NANCY**
CONTACT PHONE: **NOT REPORTED**
LAST INSPECTION (YYYYMM): **NOT REPORTED**
INSPECTION NAME: **JORDAN**
NEXT INSPECTION (YYYYMM): **03/01/91**

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National Pollutant Discharge Elimination System (NPDESR05)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

NPDES ID#: **OH0003298**

NAME: **CAMPBELL SOUP COMPANY**

PHYSICAL ADDRESS: **STATE ROUTE 110**
NAPOLEON, OH 43545

PERMITTYPE / ISSUE DATE: **NOT REPORTED / 04/29/91**

FACILITY TYPE: **INDUSTRIAL**

STANDARD INDUSTRIAL CLASSIFICATION: **CANNED & CURED FISH & SEAFOOD**

RECEIVING WATER: **MAUMEE RIVER**

Back to Report Summary

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

PERMIT #: **OH0003298**
NAME: **CAMPBELL SOUP COMPANY**
PHYSICAL ADDRESS: **STATE ROUTE 110**
NAPOLEON, OH
FACILITY TYPE: **INDUSTRIAL**
PERMIT TYPE: **NOT REPORTED**
PERMIT EXPIRED: **07/31/2008**
RECEIVING WATERS: **MAUMEE RIVER**
STANDARD INDUSTRIAL CODE: **ESTABLISHMENTS PRIMARILY ENGAGED IN COOKING AND CANNING FISH, SHRIMP, OYSTERS, CLAMS, CRABS, AND OTHER SEAFOODS, INCLUDING SOUPS; AND THOSE ENGAGED IN SMOKING, SALTING, DRYING, OR OTHERWISE CURING FISH AND OTHER SEAFOODS FOR THE TRADE.**

INSPECTIONS

INSPECTION DATE:	INSPECTION CODE:	INSPECTION TYPE:
04/29/1991	**STATE**	**COMPLIANCE SAMPLING**
06/08/1992	**STATE**	**COMPLIANCE BIOMONITORING**
06/09/1992	**STATE**	**TOXICS INSPECTION**
07/06/1992	**STATE**	**COMPLIANCE BIOMONITORING**
07/27/1992	**STATE**	**COMPLIANCE BIOMONITORING**
07/28/1992	**STATE**	**TOXICS INSPECTION**
09/25/1992	**STATE**	**COMPLIANCE SAMPLING**
04/26/1993	**STATE**	**PERFORMANCE AUDIT**
08/13/1993	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
12/12/1994	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
06/26/1996	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
10/21/1996	**STATE**	**COMPLIANCE BIOMONITORING**
10/21/1996	**STATE**	**TOXICS INSPECTION**
11/18/1996	**STATE**	**COMPLIANCE BIOMONITORING**
11/18/1996	**STATE**	**TOXICS INSPECTION**
11/19/1996	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
12/09/1997	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
04/08/2002	**STATE**	**COMPLIANCE SAMPLING**
06/30/2002	**STATE**	**COMPLIANCE BIOMONITORING**
05/20/2003	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
06/09/2005	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
12/15/2005	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
03/29/2007	**STATE**	**COMPLIANCE BIOMONITORING**
05/08/2007	**STATE**	**COMPLIANCE SAMPLING**
02/25/2008	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
08/27/2008	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
08/27/2008	**EPA (REGIONAL)**	**COMP. EVAL. INSP. (OVERSIGHT)**
03/30/2009	**STATE**	**COMPLIANCE EVAL (NON-SAMPLING)**
08/21/2009	**STATE**	**COMPLAINT**

HISTORIC COMPLIANCE

HISTORIC LAST REPORTED NON-COMPLIANCE:	HISTORIC NON-COMPLIANCE QUARTER (YYYYQ):
NOT REPORTED	19941
NOT REPORTED	19944
NOT REPORTED	19951
NOT REPORTED	19952
NOT REPORTED	19953
NOT REPORTED	19954
COMPLIANT	19961
COMPLIANT	19962
COMPLIANT	19963
COMPLIANT	19964
COMPLIANT	19971
COMPLIANT	19972
COMPLIANT	19973
COMPLIANT	19981
COMPLIANT	19982
COMPLIANT	19984
RESOLVED	19991
COMPLIANT	19993
NC-RNC VIOLTNS ONLY	19994
NC-RNC VIOLTNS ONLY	20004
COMPLIANT	20011
COMPLIANT	20012
NC-SNC EFFLUENT VIOL	20013
NC-SNC EFFLUENT VIOL	20014
COMPLIANT	20021
NOT REPORTED	20042
NOT REPORTED	20044
NOT REPORTED	20053
NOT REPORTED	20054
NC-RNC VIOLTNS ONLY	20061
RESOLVED	20062
NOT REPORTED	20064
NOT REPORTED	20072
NOT REPORTED	20073
NC-SNC EFFLUENT VIOL	20074
RESOLVED	20081
NOT REPORTED	20083
NC-SNC EFFLUENT VIOL	20084
NC-SNC EFFLUENT VIOL	20091
RESOLVED	20092
NOT REPORTED	20093
NC-SNC EFFLUENT VIOL	20094
RESOLVED	20101

EFFLUENT VIOLATIONS

MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **SOLIDS, TOTAL SUSPENDED**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**

PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**

QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **NITROGEN, AMMONIA TOTAL (AS N)**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **COLIFORM, FECAL MF, M-FC BROTH,44.5C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **COLIFORM, FECAL MF, M-FC BROTH,44.5C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **COLIFORM, FECAL MF, M-FC BROTH,44.5C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**

QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **COLIFORM, FECAL MF, M-FC BROTH,44.5C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **COLIFORM, FECAL MF, M-FC BROTH,44.5C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **COLIFORM, FECAL MF, M-FC BROTH,44.5C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **COLIFORM, FECAL MF, M-FC BROTH,44.5C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **COLIFORM, FECAL MF, M-FC BROTH,44.5C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **COLIFORM, FECAL MF, M-FC BROTH,44.5C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **BOD, CARBONACEOUS 05 DAY, 20C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **BOD, CARBONACEOUS 05 DAY, 20C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **BOD, CARBONACEOUS 05 DAY, 20C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**

QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **BOD, CARBONACEOUS 05 DAY, 20C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **PH**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **PH**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **PH**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **PH**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **PH**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **PH**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
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QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
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PARAMETER DESCRIPTION: **PH**
MONITORING DATE: **NOT REPORTED**

EFFLUENT VIOLATION: **NUMERIC VIOLATION**
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QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **PH**
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EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **BOD, CARBONACEOUS 05 DAY, 20C**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **PH**
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PARAMETER DESCRIPTION: **PH**
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EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
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PARAMETER DESCRIPTION: **PH**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **SOLIDS, TOTAL SUSPENDED**
MONITORING DATE: **NOT REPORTED**
EFFLUENT VIOLATION: **NUMERIC VIOLATION**
QNCR MEASUREMENT/VIOLATION DETECTION: **NOT REPORTED**
QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **PH**
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PARAMETER DESCRIPTION: **PH**
MONITORING DATE: **NOT REPORTED**
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QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **SOLIDS, TOTAL SUSPENDED**
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QNCR MEASUREMENT/VIOLATION DATE: **NOT REPORTED**
QNCR RESOLUTION DATE: **NOT REPORTED**
PARAMETER DESCRIPTION: **PH**

SINGLE EVENT VIOLATIONS

SINGLE EVENT VIOLATION: **NOT REPORTED**
SINGLE EVENT DATE: **NOT REPORTED**

RNC DETECTION CODE: **NOT REPORTED**
RNC DETECTION DATE: **NOT REPORTED**
RNC RESOLUTION CODE: **NOT REPORTED**
RNC RESOLUTION DATE: **NOT REPORTED**

COMPLIANCE SCHEDULE VIOLATIONS

VIOLATION CODE: **NOT REPORTED**
VIOLATION DATE (YEAR/MONTH): **NOT REPORTED**
DATE OF RNC (YEAR/MONTH): **NOT REPORTED**
RESOLUTION OF RNC: **NOT REPORTED**
RESOLUTION DATE (YEAR/MONTH): **NOT REPORTED**
QNCR COMPLIANCE SCHEDULE VIOLATION: **NOT REPORTED**

ENFORCEMENT ACTIONS AND PENALTIES

ENFORCEMENT ACTION FILE NUMBER: **NOT REPORTED**
ENFORCEMENT ACTION: **LTR OF VIOLATION/WARNING LT 1**
ENFORCEMENT ACTION TYPE ORDER ISSUED: **NOT REPORTED**
ENFORCEMENT ACTION DATE: **NOT REPORTED**
ENFORCEMENT ACTION STATUS: **CLOSED - BACK INTO COMPLIANCE**
PENALTY AMOUNT ASSESSED: **NOT REPORTED**
PENALTY ASSESSED BY JUDICIAL DECREE: **NOT REPORTED**
ENFORCEMENT ACTION FILE NUMBER: **NOT REPORTED**
ENFORCEMENT ACTION: **NOTICE OF VIOL, INFML =201**
ENFORCEMENT ACTION TYPE ORDER ISSUED: **NOT REPORTED**
ENFORCEMENT ACTION DATE: **NOT REPORTED**
ENFORCEMENT ACTION STATUS: **CLOSED - BACK INTO COMPLIANCE**
PENALTY AMOUNT ASSESSED: **NOT REPORTED**
PENALTY ASSESSED BY JUDICIAL DECREE: **NOT REPORTED**
ENFORCEMENT ACTION FILE NUMBER: **NOT REPORTED**
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ENFORCEMENT ACTION TYPE ORDER ISSUED: **NOT REPORTED**
ENFORCEMENT ACTION DATE: **NOT REPORTED**
ENFORCEMENT ACTION STATUS: **CLOSED - BACK INTO COMPLIANCE**
PENALTY AMOUNT ASSESSED: **NOT REPORTED**
PENALTY ASSESSED BY JUDICIAL DECREE: **NOT REPORTED**

Back to Report Summary

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

EPA ID#: **OHD005419171**
NAME: **CAMPBELL SOUP SUPPLY CO - SOUP PLANT**
ADDRESS: **12-773 STATE RTE 110**
NAPOLEON, OH 43545
CONTACT NAME: **RANDY R PUCKETT**
CONTACT ADDRESS: **PO BOX 311**
NAPOLEON OH 43545
CONTACT PHONE: **419-599-6631**
NON-NOTIFIER: **NOT A NON-NOTIFIER**
DATE RECEIVED BY AGENCY: **07/23/2012**

OWNER TYPE: **PRIVATE**
OWNER NAME: **CAMPBELL SOUP SUPPLY CO**
OPERATOR TYPE: **PRIVATE**
OPERATOR NAME: **CAMPBELL SOUP SUPPLY CO**

CERTIFICATION

CERTIFICATION NAME:	CERTIFICATION TITLE:	CERTIFICATION SIGNED DATE:
KEVIN J RIPPEE	**MANAGER**	**10/23/2006**
KEVIN RIPPEE	**MANAGER SERVICE/UTILITIES**	**01/02/2007**
GEOFFREY L SANS	**MGR SVCS & UTILITIES**	**07/08/2011**
RANDY PUCKETT	**MGR PLANT SVCS & UTILITIES**	**07/18/2012**

INDUSTRY CLASSIFICATION (NAICS)

311422 - SPECIALTY CANNING
311711 - SEAFOOD CANNING

SITE HISTORY (INCLUDES GENERATORS AND NON-GENERATORS)

DATE RECEIVED BY AGENCY: **01/08/2007**
NAME: **CAMPBELL SOUP SUPPLY CO**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **06/17/1999**
NAME: **CAMPBELL SOUP SUPPLY CO**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **07/12/2011**
NAME: **CAMPBELL SOUP SUPPLY CO - SOUP PLANT**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **07/23/2012**
NAME: **CAMPBELL SOUP SUPPLY CO - SOUP PLANT**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **10/01/2002**
NAME: **CAMPBELL SOUP SUPPLY CO**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **10/26/2006**
NAME: **CAMPBELL SOUP SUPPLY CO**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **11/19/1980**
NAME: **CAMPBELL SOUP SUPPLY CO**
GENERATOR CLASSIFICATION: **NOT A GENERATOR**

Resource Conservation & Recovery Act - Corrective Action Facilities (RCRAC)

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **SMALL QUANTITY GENERATOR** LAST UPDATED DATE: **08/07/2012**
SUBJECT TO CORRECTIVE ACTION UNIVERSE: **YES**
TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**
TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **YES**
NON TSDFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**
CORRECTIVE ACTION WORKLOAD UNIVERSE: **YES**

IMPORTER: **NO**
MIXED WASTE GENERATOR: **NO**
RECYCLER: **NO**
TRANSPORTER: **NO**
ONSITE BURNER EXEMPTION: **NO**
FURNACE EXEMPTION: **NO**
USED OIL REFINER: **NO**
USED OIL TRANSFER FACILITY: **NO**
UNDERGROUND INJECTION: **NO**
UNIVERSAL WASTE DESTINATION FACILITY: **NO**
TRANSFER FACILITY: **NO**
USED OIL FUEL BURNER: **NO**
USED OIL PROCESSOR: **NO**
USED OIL FUEL MARKETER TO BURNER: **NO**
SPECIFICATION USED OIL MARKETER: **NO**
USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS

01/20/1994	**SNN**	**NOT A SIGNIFICANT NON-COMPLIER**
03/23/2000	**FSD**	**FACILITY SELF DISCLOSURE**
05/19/1993	**CEI**	**COMPLIANCE EVALUATION INSPECTION ON-SITE**
05/19/1993	**SNY**	**SIGNIFICANT NON-COMPLIER**
06/09/2004	**SNN**	**NOT A SIGNIFICANT NON-COMPLIER**
07/07/2000	**SNY**	**SIGNIFICANT NON-COMPLIER**
08/22/2003	**FRR**	**FINANCIAL RECORD REVIEW**
09/30/2002	**FRR**	**FINANCIAL RECORD REVIEW**
10/15/2010	**NRR**	**NON-FINANCIAL RECORD REVIEW**
10/29/2003	**CEI**	**COMPLIANCE EVALUATION INSPECTION ON-SITE**

VIOLATIONS

03/23/2000	**262.A**	**GENERATORS - GENERAL**
05/19/1993	**266.H**	**SPECIFIC - BOILERS AND INDUSTRIAL FURNACES**
08/22/2003	**264.H**	**TSD - FINANCIAL REQUIREMENTS**
10/15/2010	**262.D**	**GENERATORS - RECORDS/REPORTING**
10/29/2003	**262.A**	**GENERATORS - GENERAL**

ENFORCEMENTS

05/16/2000	**120**	**WRITTEN INFORMAL**
08/02/1993	**120**	**WRITTEN INFORMAL**
08/25/2003	**120**	**WRITTEN INFORMAL**
09/06/2000	**210**	**INITIAL 3008(A) COMPLIANCE**
10/15/2010	**120**	**WRITTEN INFORMAL**
10/18/2000	**310**	**FINAL 3008(A) COMPLIANCE ORDER**
11/14/2003	**120**	**WRITTEN INFORMAL**

HAZARDOUS WASTE

D001	**IGNITABLE WASTE**

D002	CORROSIVE WASTE
D008	LEAD
D009	MERCURY
D013	LINDANE (1,2,3,4,5,6-HEXACHLOROCYCLOHEXANE,GAMMA ISOMER)
D014	METHOXYCHLOR (1,1,1-TRICHLORO-2,2-BIS [PMETHOXYPHENYL]ETHANE)
D022	CHLOROFORM
D035	METHYL ETHYL KETONE
F005	THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE,CARBON DISULFIDE, ISOBUTANOL, PYRIDINE,BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001,F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
U044	CHLOROFORM
U044	METHANE, TRICHLORO-
U080	METHANE, DICHLORO-
U080	METHYLENE CHLORIDE

UNIVERSAL WASTE **- NO UNIVERSAL WASTE REPORTED -**

CORRECTIVE ACTION AREA (RELEASE)

AREA NAME:	AIR:	GROUNDWATER:	SOIL:	SURFACE WASTE:
ENTIRE FACILITY	**-----**	**-----**	**-----**	**-----**

CORRECTIVE ACTION EVENT

CA EVENT:	DATE:	EVENT DESCRIPTION:
CA001	**04/03/2009**	**ORDER APPEALED**
CA002IL	**07/01/2006**	**POTENTIAL CA OBLIGATIONS [CATEGORY A] - INITIAL LOAD**
CA070NO	**09/21/2010**	**DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NOT NECESSARY**
CA400	**09/21/2010**	**REMEDY DECISION**
CA550NR	**09/21/2010**	**REMEDY CONSTRUCTION-NO REMEDY CONSTRUCTED**
CA725YE	**07/19/2010**	**HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE**
CA750YE	**07/19/2010**	**RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE**
CA800YE	**02/19/2013**	**READY FOR ANTICIPATED USE DETERMINATION - READY FOR ANTICIPATED USE**

Back to Report Summary

Resource Conservation & Recovery Act - Generator Facilities (RCRAGR05)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

EPA ID#: **OHR000029223**

NAME: **SILGAN CAN CO**

ADDRESS: **12-773 STATE ROUTE 110 SUITE 1**
NAPOLEON, OH 43545

CONTACT NAME: **SHARON ERNEST**

CONTACT ADDRESS: **1190 CORPORATE CENTER DR.**
OCONOMOWOC WI 53066

CONTACT PHONE: **262-569-5857**

NON-NOTIFIER: **NOT A NON-NOTIFIER**

DATE RECEIVED BY AGENCY: **02/24/2012**

OWNER TYPE: **PRIVATE**

OWNER NAME: **SILGAN CONTAINERS MANUFACTURING CORP.**

OPERATOR TYPE: **PRIVATE**

OPERATOR NAME: **SILGAN CAN COMPANY**

CERTIFICATION

CERTIFICATION NAME:	CERTIFICATION TITLE:	CERTIFICATION SIGNED DATE:
A BEN BACON	**ENVIRONMENTAL E**	**04/30/2002**
PHILLIP CESEN	**PLANT MANAGER**	**02/24/2012**
PHILLIP CESEN	**PLANT MANAGER**	**02/11/2004**
PHILLIP CESEN	**PLANT MGR**	**02/24/2005**
PHILLIP CESEN	**PLANT MANAGER**	**02/27/2006**
PHILLIP CESEN	**PLANT MANAGER**	**02/15/2007**
PHILLIP CESEN	**PLANT MANAGER**	**02/25/2008**
PHILLIP CESEN	**PLANT MANAGER**	**02/18/2009**
PHILLIP CESEN	**PLANT MANAGER**	**02/26/2010**

INDUSTRY CLASSIFICATION (NAICS)

332431 - METAL CAN MANUFACTURING

SITE HISTORY (INCLUDES GENERATORS AND NON-GENERATORS)

DATE RECEIVED BY AGENCY: **02/08/2011**
NAME: **SILGAN CAN COMPANY**
GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **02/11/2004**
NAME: **SILGAN CAN CO**
GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **02/15/2007**
NAME: **SILGAN CAN CO**
GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **02/18/2003**
NAME: **SILGAN CAN CO**
GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **02/18/2009**
NAME: **SILGAN CAN COMPANY**
GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **02/24/2005**
NAME: **SILGAN CAN CO**

GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **02/24/2012**

NAME: **SILGAN CAN CO**

GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **02/25/2008**

NAME: **SILGAN CAN COMPANY**

GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **02/26/2010**

NAME: **SILGAN CAN COMPANY**

GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **02/27/2006**

NAME: **SILGAN CAN CO**

GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **04/30/2002**

NAME: **SILGAN CAN COMPANY**

GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **05/20/1998**

NAME: **SILGAN CAN CO**

GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **05/31/2006**

NAME: **SILGAN CAN CO**

GENERATOR CLASSIFICATION: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **LARGE QUANTITY GENERATOR** LAST UPDATED DATE: **11/05/2012**

SUBJECT TO CORRECTIVE ACTION UNIVERSE: **NO**

TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**

TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **NO**

NON TSDFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**

CORRECTIVE ACTION WORKLOAD UNIVERSE: **NO**

IMPORTER: **NO**

MIXED WASTE GENERATOR: **NO**

RECYCLER: **NO**

TRANSPORTER: **NO**

ONSITE BURNER EXEMPTION: **NO**

FURNACE EXEMPTION: **NO**

USED OIL REFINER: **NO**

USED OIL TRANSFER FACILITY: **NO**

UNDERGROUND INJECTION: **NO**

UNIVERSAL WASTE DESTINATION FACILITY: **NO**

TRANSFER FACILITY: **NO**

USED OIL FUEL BURNER: **NO**

USED OIL PROCESSOR: **NO**

USED OIL FUEL MARKETER TO BURNER: **NO**

SPECIFICATION USED OIL MARKETER: **NO**

USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS

02/08/2011	**CEI**	**COMPLIANCE EVALUATION INSPECTION ON-SITE**
02/10/2012	**SNN**	**NOT A SIGNIFICANT NON-COMPLIER**
03/28/2011	**NRR**	**NON-FINANCIAL RECORD REVIEW**
05/31/2006	**CEI**	**COMPLIANCE EVALUATION INSPECTION ON-SITE**
08/17/2006	**NRR**	**NON-FINANCIAL RECORD REVIEW**

10/18/2011 **SNY SIGNIFICANT NON-COMPLIER**

VIOLATIONS

02/08/2011 **265.D TSD IS-CONTINGENCY PLAN AND EMERGENCY PROCEDURES**
03/28/2011 **262.A GENERATORS - GENERAL**
03/28/2011 **262.B GENERATORS - MANIFEST**
03/28/2011 **268.A LDR - GENERAL**
03/28/2011 **XXS STATE STATUTE OR REGULATION**
05/31/2006 **265.C TSD IS-PREPAREDNESS AND PREVENTION**

ENFORCEMENTS

02/10/2012 **310 FINAL 3008(A) COMPLIANCE ORDER**
02/23/2011 **120 WRITTEN INFORMAL**
06/27/2006 **120 WRITTEN INFORMAL**
07/06/2011 **120 WRITTEN INFORMAL**
12/08/2011 **125 NOV/INITIAL STATE ADMIN CONSENT ORDER**

HAZARDOUS WASTE

D001 **IGNITABLE WASTE**
D002 **CORROSIVE WASTE**
D009 **MERCURY**
D018 **BENZENE**
D026 **CRESOL**
D035 **METHYL ETHYL KETONE**
F003 **THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.**
F005 **THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE,CARBON DISULFIDE, ISOBUTANOL, PYRIDINE,BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001,F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.**

UNIVERSAL WASTE

WASTE TYPE:	ACCUMULATED WASTE ON-SITE:	GENERATED WASTE ON-SITE:	SOURCE TYPE:
BATTERIES	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**
LAMPS	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**
PESTICIDES	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**
MERCURY CONTAINING EQUIPMENT	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT UPDATED WITH NOTIFICATION**
BATTERIES	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT**
LAMPS	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT**
PESTICIDES	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT**
MERCURY CONTAINING EQUIPMENT	**NO**	**NO**	**ANNUAL/BIENNIAL REPORT**

CORRECTIVE ACTION AREA **- NO CORECTIVE ACTION AREA INFORMATION REPORTED -**

CORRECTIVE ACTION EVENT **- NO CORECTIVE ACTION EVENT REPORTED -**

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Resource Conservation & Recovery Act - Generator Facilities (RCRAGR05)

MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

EPA ID#: **OHD005419171**
NAME: **CAMPBELL SOUP SUPPLY CO - SOUP PLANT**
ADDRESS: **12-773 STATE RTE 110**
NAPOLEON, OH 43545
CONTACT NAME: **RANDY R PUCKETT**
CONTACT ADDRESS: **PO BOX 311**
NAPOLEON OH 43545
CONTACT PHONE: **419-599-6631**
NON-NOTIFIER: **NOT A NON-NOTIFIER**
DATE RECEIVED BY AGENCY: **07/23/2012**

OWNER TYPE: **PRIVATE**
OWNER NAME: **CAMPBELL SOUP SUPPLY CO**
OPERATOR TYPE: **PRIVATE**
OPERATOR NAME: **CAMPBELL SOUP SUPPLY CO**

CERTIFICATION

CERTIFICATION NAME:	CERTIFICATION TITLE:	CERTIFICATION SIGNED DATE:
KEVIN J RIPPEE	**MANAGER**	**10/23/2006**
KEVIN RIPPEE	**MANAGER SERVICE/UTILITIES**	**01/02/2007**
GEOFFREY L SANS	**MGR SVCS & UTILITIES**	**07/08/2011**
RANDY PUCKETT	**MGR PLANT SVCS & UTILITIES**	**07/18/2012**

INDUSTRY CLASSIFICATION (NAICS)

311422 - SPECIALTY CANNING
311711 - SEAFOOD CANNING

SITE HISTORY (INCLUDES GENERATORS AND NON-GENERATORS)

DATE RECEIVED BY AGENCY: **01/08/2007**
NAME: **CAMPBELL SOUP SUPPLY CO**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **06/17/1999**
NAME: **CAMPBELL SOUP SUPPLY CO**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **07/12/2011**
NAME: **CAMPBELL SOUP SUPPLY CO - SOUP PLANT**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **07/23/2012**
NAME: **CAMPBELL SOUP SUPPLY CO - SOUP PLANT**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **10/01/2002**
NAME: **CAMPBELL SOUP SUPPLY CO**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **10/26/2006**
NAME: **CAMPBELL SOUP SUPPLY CO**
GENERATOR CLASSIFICATION: **SMALL QUANTITY GENERATOR**

DATE RECEIVED BY AGENCY: **11/19/1980**
NAME: **CAMPBELL SOUP SUPPLY CO**
GENERATOR CLASSIFICATION: **NOT A GENERATOR**

Resource Conservation & Recovery Act - Generator Facilities (RCRAGR05)

CURRENT ACTIVITY INFORMATION

GENERATOR STATUS: **SMALL QUANTITY GENERATOR** LAST UPDATED DATE: **08/07/2012**
SUBJECT TO CORRECTIVE ACTION UNIVERSE: **YES**
TDSFs POTENTIALLY SUBJECT TO CORRECTIVE ACTION UNDER 3004 (u)/(v) UNIVERSE: **NO**
TDSFs ONLY SUBJECT TO CORRECTIVE ACTION UNDER DISCRETIONARY AUTHORITIES UNIVERSE: **YES**
NON TSDFs WHERE RCRA CORRECTIVE ACTION HAS BEEN IMPOSED UNIVERSE: **NO**
CORRECTIVE ACTION WORKLOAD UNIVERSE: **YES**

IMPORTER: **NO**
MIXED WASTE GENERATOR: **NO**
RECYCLER: **NO**
TRANSPORTER: **NO**
ONSITE BURNER EXEMPTION: **NO**
FURNACE EXEMPTION: **NO**
USED OIL REFINER: **NO**
USED OIL TRANSFER FACILITY: **NO**
UNDERGROUND INJECTION: **NO**
UNIVERSAL WASTE DESTINATION FACILITY: **NO**
TRANSFER FACILITY: **NO**
USED OIL FUEL BURNER: **NO**
USED OIL PROCESSOR: **NO**
USED OIL FUEL MARKETER TO BURNER: **NO**
SPECIFICATION USED OIL MARKETER: **NO**
USED OIL TRANSPORTER: **NO**

COMPLIANCE, MONITORING AND ENFORCEMENT INFORMATION

EVALUATIONS

01/20/1994	**SNN**	**NOT A SIGNIFICANT NON-COMPLIER**
03/23/2000	**FSD**	**FACILITY SELF DISCLOSURE**
05/19/1993	**CEI**	**COMPLIANCE EVALUATION INSPECTION ON-SITE**
05/19/1993	**SNY**	**SIGNIFICANT NON-COMPLIER**
06/09/2004	**SNN**	**NOT A SIGNIFICANT NON-COMPLIER**
07/07/2000	**SNY**	**SIGNIFICANT NON-COMPLIER**
08/22/2003	**FRR**	**FINANCIAL RECORD REVIEW**
09/30/2002	**FRR**	**FINANCIAL RECORD REVIEW**
10/15/2010	**NRR**	**NON-FINANCIAL RECORD REVIEW**
10/29/2003	**CEI**	**COMPLIANCE EVALUATION INSPECTION ON-SITE**

VIOLATIONS

03/23/2000	**262.A**	**GENERATORS - GENERAL**
05/19/1993	**266.H**	**SPECIFIC - BOILERS AND INDUSTRIAL FURNACES**
08/22/2003	**264.H**	**TSD - FINANCIAL REQUIREMENTS**
10/15/2010	**262.D**	**GENERATORS - RECORDS/REPORTING**
10/29/2003	**262.A**	**GENERATORS - GENERAL**

ENFORCEMENTS

05/16/2000	**120**	**WRITTEN INFORMAL**
08/02/1993	**120**	**WRITTEN INFORMAL**
08/25/2003	**120**	**WRITTEN INFORMAL**
09/06/2000	**210**	**INITIAL 3008(A) COMPLIANCE**
10/15/2010	**120**	**WRITTEN INFORMAL**
10/18/2000	**310**	**FINAL 3008(A) COMPLIANCE ORDER**
11/14/2003	**120**	**WRITTEN INFORMAL**

HAZARDOUS WASTE

D001 **IGNITABLE WASTE**

D002	CORROSIVE WASTE
D008	LEAD
D009	MERCURY
D013	LINDANE (1,2,3,4,5,6-HEXACHLOROCYCLOHEXANE,GAMMA ISOMER)
D014	METHOXYCHLOR (1,1,1-TRICHLORO-2,2-BIS [PMETHOXYPHENYL]ETHANE)
D022	CHLOROFORM
D035	METHYL ETHYL KETONE
F005	THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE,CARBON DISULFIDE, ISOBUTANOL, PYRIDINE,BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001,F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
U044	CHLOROFORM
U044	METHANE, TRICHLORO-
U080	METHANE, DICHLORO-
U080	METHYLENE CHLORIDE

UNIVERSAL WASTE **- NO UNIVERSAL WASTE REPORTED -**

CORRECTIVE ACTION AREA (RELEASE)

AREA NAME:	AIR:	GROUNDWATER:	SOIL:	SURFACE WASTE:
ENTIRE FACILITY	**-----**	**-----**	**-----**	**-----**

CORRECTIVE ACTION EVENT

CA EVENT:	DATE:	EVENT DESCRIPTION:
CA001	**04/03/2009**	**ORDER APPEALED**
CA002IL	**07/01/2006**	**POTENTIAL CA OBLIGATIONS [CATEGORY A] - INITIAL LOAD**
CA070NO	**09/21/2010**	**DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NOT NECESSARY**
CA400	**09/21/2010**	**REMEDY DECISION**
CA550NR	**09/21/2010**	**REMEDY CONSTRUCTION-NO REMEDY CONSTRUCTED**
CA725YE	**07/19/2010**	**HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE**
CA750YE	**07/19/2010**	**RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE**
CA800YE	**02/19/2013**	**READY FOR ANTICIPATED USE DETERMINATION - READY FOR ANTICIPATED USE**

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MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

ID #: **43545SLGNC12773**

OWNER NAME: **SILGAN HOLDINGS INC**

FACILITY NAME: **SILGAN CAN CO**

ADDRESS: **12-773 ST RT 110**
NAPOLEON, OH 43545

COUNTY: **HENRY**

(NAICS) INDUSTRIAL CLASSIFICATION

332431 - THIS U.S. INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN MANUFACTURING METAL CANS, LIDS, AND ENDS.

CHEMICAL/S RELEASED

CERTAIN GLYCOL ETHERS, METHYL ISOBUTYL KETONE, XYLENE (MIXED ISOMERS), N-BUTYL ALCOHOL

RELEASE INFORMATION

(Release amounts are reported in pounds)

REPORT YEAR	FUGITIVE AIR	STACK AIR	WATER RELEASE	CLASS I INJECTION WELLS	CLASS II - V INJECTION WELLS	RCRA C / OTHER LANDFILLS	LAND TREATMENT
1999	38800.00	85900.00	0.00	0.00	0.00	0.00	0.00
1998	61109.00	18675.00	0.00	0.00	0.00	0.00	0.00
2000	24500.00	33800.00	0.00	0.00	0.00	0.00	0.00
2001	21600.00	32300.00	0.00	0.00	0.00	0.00	0.00
2002	27500.00	36600.00	0.00	0.00	0.00	0.00	0.00
2003	6541.00	17496.00	0.00	0.00	0.00	0.00	0.00
2004	5826.00	15013.00	0.00	0.00	0.00	0.00	0.00
2005	5601.00	15464.00	0.00	0.00	0.00	0.00	0.00
2006	6300.00	16376.00	0.00	0.00	0.00	0.00	0.00
2007	6127.00	16940.00	0.00	0.00	0.00	0.00	0.00
2008	4985.00	12929.00	0.00	0.00	0.00	0.00	0.00
2009	5451.00	14334.00	0.00	0.00	0.00	0.00	0.00
2010	6206.00	16156.00	0.00	0.00	0.00	0.00	0.00
2011	17941.00	19734.00	0.00	0.00	0.00	0.00	0.00
2012	10404.00	22353.00	0.00	0.00	0.00	0.00	0.00

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MAP ID# 7 **Distance from Property: 0.21 mi. SE**

FACILITY INFORMATION

ID #: **43545CMPBLEASTM**

OWNER NAME: **CAMPBELL SOUP CO**

FACILITY NAME: **CAMPBELL SOUP SUPPLY CO LLC**

ADDRESS: **12-773 STATE RT 110**
NAPOLEON, OH 43545

COUNTY: **HENRY**

(NAICS) INDUSTRIAL CLASSIFICATION

311422 - THIS U.S. INDUSTRY COMPRISES ESTABLISHMENTS PRIMARILY ENGAGED IN MANUFACTURING CANNED SPECIALTY FOODS. EXAMPLES OF PRODUCTS MADE IN THESE ESTABLISHMENTS ARE CANNED BABY FOOD, CANNED BAKED BEANS, CANNED SOUPS (EXCEPT SEAFOOD), CANNED SPAGHETTI, AND OTHER CANNED NATIONALITY FOODS.

CHEMICAL/S RELEASED

SODIUM HYDROXIDE (SOLUTION), METHYL ETHYL KETONE, ALUMINUM OXIDE (FIBROUS FORMS), ZINC COMPOUNDS, CHLORINE

RELEASE INFORMATION

(Release amounts are reported in pounds)

REPORT YEAR	FUGITIVE AIR	STACK AIR	WATER RELEASE	CLASS I INJECTION WELLS	CLASS II - V INJECTION WELLS	RCRA C / OTHER LANDFILLS	LAND TREATMENT
1987	250.00	0.00	8900.00	0.00	0.00	0.00	0.00
1988	89250.00	118000.00	8100.00	0.00	0.00	0.00	0.00
1989	46750.00	268000.00	7400.00	0.00	0.00	0.00	0.00
1990	760.00	132100.00	3000.00	0.00	0.00	0.00	0.00
1999	0.00	0.00	750.00	0.00	0.00	0.00	192.00
1991	16612.00	29491.00	5738.00	0.00	0.00	0.00	0.00
1992	46010.00	17800.00	1300.00	0.00	0.00	0.00	0.00
1993	127110.00	7300.00	750.00	0.00	0.00	0.00	0.00
1994	98010.00	12300.00	750.00	0.00	0.00	0.00	0.00
1995	71510.00	157000.00	750.00	0.00	0.00	0.00	0.00
1996	60410.00	17900.00	250.00	0.00	0.00	0.00	0.00
1997	56985.00	20626.00	0.00	0.00	0.00	0.00	0.00
1998	12700.00	6533.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	453.00	0.00	0.00	0.00	306.00
2001	0.00	24.18	525.00	0.00	0.00	0.00	1342.78
2002	0.00	141014.94	0.00	0.00	0.00	0.00	1763.01
2003	0.00	120785.00	46000.00	0.00	0.00	0.00	0.00
2004	0.00	113731.00	49016.00	0.00	0.00	0.00	1.00
2005	5.00	107671.00	39014.00	0.00	0.00	0.00	2.00
2006	5.00	113047.00	48293.00	0.00	0.00	0.00	2.00
2007	5.50	119793.90	54397.17	0.00	0.00	0.00	1.71
2008	5.31	117136.70	45001.37	0.00	0.00	0.00	0.27
2009	4.41	89921.80	52302.67	0.00	0.00	0.00	0.19
2010	1.00	75338.70	47518.00	0.00	0.00	0.00	0.28
2011	0.20	313.90	34361.68	0.00	0.00	0.00	0.39
2012	0.00	0.00	47049.50	0.00	0.00	0.00	0.00

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MAP ID# 7 **Distance from Property: 0.21 mi. SE**

SITE INFORMATION

FAC ID: **03-35-01-0105**
NAME: **CAMPBELL SOUP COMPANY**
ADDRESS: **CAMPBELL SOUP COMPANY LLC**
NAPOLEON, OH 43545
COUNTY: **HENRY**

SITE DETAILS

EUID: **P007**
ERMIT BY RULE TYPE: **EMERGENCY ELECTRICAL GENERATORS, WATER PUMPS, OR AIR COMPRESSORS**
RECEIVED DATE: **12/21/06**
EFFECTIVE DATE: **02/06/07**
AGENCIES: **OHIO EPA DAPC, NORTHWEST DISTRICT OFFICE**
EUID DESCRIPTION:
130 HP EMERGENCY FIREFIGHTING WATER PUMP, DISTILLATE OIL

EUID: **P008**
ERMIT BY RULE TYPE: **EMERGENCY ELECTRICAL GENERATORS, WATER PUMPS, OR AIR COMPRESSORS**
RECEIVED DATE: **12/21/06**
EFFECTIVE DATE: **02/06/07**
AGENCIES: **OHIO EPA DAPC, NORTHWEST DISTRICT OFFICE**
EUID DESCRIPTION:
350 HP NATURAL GAS-FIRED EMERGENCY ELECTRICAL GENERATOR,

EUID: **P009**
ERMIT BY RULE TYPE: **EMERGENCY ELECTRICAL GENERATORS, WATER PUMPS, OR AIR COMPRESSORS**
RECEIVED DATE: **12/21/06**
EFFECTIVE DATE: **02/06/07**
AGENCIES: **OHIO EPA DAPC, NORTHWEST DISTRICT OFFICE**
EUID DESCRIPTION:
285 HP EMERGENCY FIREFIGHTING WATER PUMP, DISTILLATE OIL

EUID: **P010**
ERMIT BY RULE TYPE: **EMERGENCY ELECTRICAL GENERATORS, WATER PUMPS, OR AIR COMPRESSORS**
RECEIVED DATE: **12/21/06**
EFFECTIVE DATE: **02/06/07**
AGENCIES: **OHIO EPA DAPC, NORTHWEST DISTRICT OFFICE**
EUID DESCRIPTION:
315 KW EMERGENCY ELECTRICAL GENERATOR, DISTILLATE OIL

EUID: **P011**
ERMIT BY RULE TYPE: **EMERGENCY ELECTRICAL GENERATORS, WATER PUMPS, OR AIR COMPRESSORS**
RECEIVED DATE: **12/21/06**
EFFECTIVE DATE: **02/06/07**
AGENCIES: **OHIO EPA DAPC, NORTHWEST DISTRICT OFFICE**

EUID DESCRIPTION:

300 HP FIREFIGHTING WATER PUMP, DISTILLATE OIL

EUID: **P012**

ERMIT BY RULE TYPE: **EMERGENCY ELECTRICAL GENERATORS, WATER PUMPS, OR AIR COMPRESSORS**

RECEIVED DATE: **08/23/11**

EFFECTIVE DATE: **08/24/11**

AGENCIES: **OHIO EPA DAPC, NORTHWEST DISTRICT OFFICE**

EUID DESCRIPTION:

EMERGENCY GENERATOR INSTALLED AS PART OF EPA APPROVED PLANS FOR THE WATER TREATMENT PLANT GENERATOR TO SERVE BUILDINGS N-13 AND N-14.

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Permit by Rule Air Facilities (AIRS)

MAP ID# 8 **Distance from Property: 0.24 mi. N**

SITE INFORMATION

FAC ID: **03-35-01-0069**

NAME: **CITY OF NAPOLEON- MUNICIPAL SERVICE BUILDING**

ADDRESS: **1775 INDUSTRIAL DR**
NAPOLEON, OH 43545

COUNTY: **HENRY**

SITE DETAILS

EUID: **P001**

ERMIT BY RULE TYPE: **EMERGENCY ELECTRICAL GENERATORS, WATER PUMPS, OR AIR COMPRESSORS**

RECEIVED DATE: **11/14/05**

EFFECTIVE DATE: **01/09/06**

AGENCIES: **OHIO EPA DAPC, NORTHWEST DISTRICT OFFICE**

EUID DESCRIPTION:

125 KW ELECTRICAL GENERATOR, DISTILLATE OIL

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Leaking Underground Storage Tank Facilities (LUST)

MAP ID# 8 **Distance from Property: 0.24 mi. N**

SITE INFORMATION

GS ID: **35000020*LUST**
NAME: **MUNICIPAL SERVICE BUILDING**
ADDRESS: **1775 INDUSTRIAL DR**
NAPOLEON, OH 43545
COUNTY: **HENRY**

SITE DETAILS

RELEASE ID: **35000020-N00001**
LEAKING TANK FUND ELIGIBILITY STATUS:
6 CLOSURE OF REGULATED UST
FR STATUS: **NFA: NO FURTHER ACTION**
RELEASE DATE: **10/07/91**
FACILITY STATUS: **INACTIVE**
CLASS DESCRIPTION: **A VIABLE RP HAS BEEN IDENTIFIED**

RELEASE ID: **35000020-N00002**
LEAKING TANK FUND ELIGIBILITY STATUS:
1 A SUSPECTED RELEASE/A RELEASE IS CONFIRMED FROM REGULATED UST
FR STATUS: **NFA: NO FURTHER ACTION**
RELEASE DATE: **10/18/01**
FACILITY STATUS: **INACTIVE**
CLASS DESCRIPTION: **A VIABLE RP HAS BEEN IDENTIFIED**

RELEASE ID: **35000020-N00003**
LEAKING TANK FUND ELIGIBILITY STATUS:
6 CLOSURE OF REGULATED UST
FR STATUS: **NFA: NO FURTHER ACTION**
RELEASE DATE: **01/24/12**
FACILITY STATUS: **INACTIVE**
CLASS DESCRIPTION: **A VIABLE RP HAS BEEN IDENTIFIED**

Back to Report Summary

Spills Listing (SPILLS)

MAP ID# 8 **Distance from Property: 0.24 mi. N**

SITE INFORMATION

GS ID: **859322502**
SPILL ID: **NOT REPORTED**
SEQUENCE NUMBER: **3971**
ADDRESS: **1775 INDUSTRIAL DR**
NAPOLEON, OH
COUNTY: **HENRY**
RESPONSIBLE PARTY: **NAPOLEON CITY OF**

SITE DETAILS

SPILL DATE:	PRODUCT:	REPORTED BY:
10/18/01	**DIESEL FUEL**	**JEFF MARIHUGH**

Back to Report Summary

Underground Storage Tank Facilities (UST)

MAP ID# 8 **Distance from Property: 0.24 mi. N**

SITE INFORMATION

FACILITY ID: **35000020**

NAME: **MUNICIPAL SERVICE BUILDING**

ADDRESS: **1775 INDUSTRIAL DR**
NAPOLEON OH 43545

COUNTY: **HENRY**

FACILITY TYPE: **GOVERNMENT**

OWNER INFORMATION

NAME: **CITY OF NAPOLEON**

ADDRESS: **255 W RIVERVIEW**
NAPOLEON OH 43545

TANK INFORMATION

TANK NUMBER:	INSTALLATION DATE:	TANK CONTENT:	CAPACITY:	CONSTRUCTION:	STATUS:
T00001	**6/1/1980**	**DIESEL**	**2000**	**FRP-FIBERGLASS REINFORCED PLASTIC**	**REM - REMOVED**
T00002	**6/1/1980**	**DIESEL**	**8000**	**FRP-FIBERGLASS REINFORCED PLASTIC**	**REM - REMOVED**
T00003	**6/1/1980**	**GASOLINE**	**8000**	**FRP-FIBERGLASS REINFORCED PLASTIC**	**REM - REMOVED**
T00004	**6/1/1980**	**USED OIL**	**550**	**FRP-FIBERGLASS REINFORCED PLASTIC**	**REM - REMOVED**

Back to Report Summary

MAP ID# 8 **Distance from Property: 0.24 mi. N**

SITE INFORMATION

UNIQUE ID: **1019786**
PLANT ID: **1019786**
NAME: **OMEGA JV2 NAPOLEON DIESEL PEAKING STATIO**
ADDRESS: **1775 INDUSTRIAL DRIVE**
NAPOLEON, OH 43454
CLASSIFICATION: **POTENTIAL UNCONTROLLED EMISSIONS <100 TONS/YEAR**
OPERATION STATUS: **OPERATING**
STATE COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
FACILITY TYPE: **PRIVATELY OWNED/OPERATED**
CURRENT HIGH PRIORITY VIOLATOR: **NOT REPORTED**
SIC DESCRIPTION: **ESTABLISHMENTS ENGAGED IN THE GENERATION, TRANSMISSION, AND/OR DISTRIBUTION OF ELECTRIC ENERGY FOR SALE.**

ENFORCEMENT ACTIONS

DATE ACHIEVED: **11/30/2011**
DATE RECORDED: **01/03/2012**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/14/2011**
DATE RECORDED: **12/30/2011**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/19/2008**
DATE RECORDED: **09/26/2008**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**
ALL AIR PROGRAM: **SIP SOURCE, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/10/2008**
DATE RECORDED: **09/23/2008**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **12/01/2005**
DATE RECORDED: **05/22/2006**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**
ALL AIR PROGRAM: **SIP SOURCE, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/14/2004**
DATE RECORDED: **06/22/2004**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **02/09/2004**
DATE RECORDED: **02/24/2004**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/21/2003**
DATE RECORDED: **01/27/2004**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**
ALL AIR PROGRAM: **SIP SOURCE, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/13/2003**
DATE RECORDED: **05/26/2006**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

AIR PROGRAM

AIR PROGRAM STATUS: **PERMANENTLY CLOSED**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

HISTORICAL COMPLIANCE AIR PROGRAM LEVEL

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**

COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0903**

HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

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Facility Registry System (FRSOH)

MAP ID# 8 **Distance from Property: 0.24 mi. N**

FACILITY INFORMATION

REGISTRY ID: **110043972813**

NAME: **AMP-OHIO GAS TURBINES NAPOLEON**

LOCATION ADDRESS: **1775 INDUSTRIAL DRIVE**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **05**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

AMP-OHIO GAS TURBINES NAPOLEON

PROGRAM/S LISTED FOR THIS FACILITY

E-GGRT - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

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Facility Registry System (FRSOH)

MAP ID# 8 **Distance from Property: 0.24 mi. N**

FACILITY INFORMATION

REGISTRY ID: **110046563937**

NAME: **CITY OF NAPOLEON - MUNICIPAL SERVICE BLDG**

LOCATION ADDRESS: **1775 INDUSTRIAL DR**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

CITY OF NAPOLEON - MUNICIPAL SERVICE BLDG

PROGRAM/S LISTED FOR THIS FACILITY

OH-CORE - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

4939 - COMBINATION UTILITIES, NOT ELSEWHERE CLASSIFIED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

Back to Report Summary

Facility Registry System (FRSOH)

MAP ID# 8 **Distance from Property: 0.24 mi. N**

FACILITY INFORMATION

REGISTRY ID: **110006233726**

NAME: **OMEGA JV2 NAPOLEON GENERATING STATION**

LOCATION ADDRESS: **1775 INDUSTRIAL DRIVE**
NAPOLEON, OH 43545-9282

COUNTY: **HENRY**

EPA REGION: **5**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

AMP-OHIO GAS TURBINES NAPOLEON
AMP-OHIO GAS TURBINES NAPOLEON
PG&E NAPOLEON
AMERICAN MUNICIPAL POWER OH
PG&E NAPOLEON
AMP-OHIO NAPOLEON
NAPOLEON PEAKING
OMEGA JV2 NAPOLEON
AMP-OHIO GAS TURBINE, NAPOLEON
CITY OF NAPOLEON ELECTRIC DEPT
NAPOLEON PEAKING STATION
AMP-OHIO NAPOLEON
OMEGA JV2-NAPOLEON (0335010055)
OMEGA JV2 NAPOLEON DIESEL PEAKING STATIO

PROGRAM/S LISTED FOR THIS FACILITY

OH-CORE - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
NCDB - NATIONAL COMPLIANCE DATABASE SYSTEM
EIA-860 - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
EIS - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
AIRS/AFS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIRS FACILITY SYSTEM
CAMDBS - CAM DATABASE SYSTEM
CAMDBS - CAM DATABASE SYSTEM
AIRS/AFS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIRS FACILITY SYSTEM
EGRID - EMISSIONS & GENERATION RESOURCE INTEGRATED DATABASE
EGRID - EMISSIONS & GENERATION RESOURCE INTEGRATED DATABASE
EIA-860 - *DEFINITION NOT PROVIDED BY REPORTING AGENCY
E-GGRT - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

4911 - ELECTRIC SERVICES
4911 - ELECTRIC SERVICES
4911 - ELECTRIC SERVICES
4911 - ELECTRIC SERVICES

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

221112 - FOSSIL FUEL ELECTRIC POWER GENERATION.

221112 - FOSSIL FUEL ELECTRIC POWER GENERATION.
221112 - FOSSIL FUEL ELECTRIC POWER GENERATION.
221112 - FOSSIL FUEL ELECTRIC POWER GENERATION.
221119 - OTHER ELECTRIC POWER GENERATION.
221112 - FOSSIL FUEL ELECTRIC POWER GENERATION.

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MAP ID# 8 **Distance from Property: 0.24 mi. N**

FACILITY INFORMATION

INSPECTION #: **19900315OH021 1**
SITE NAME: **CITY OF NAPOLEON ELECTRIC DEPT**
ADDRESS: **1775 INDUSTRIAL DR**
NAPOLEON, OH 43545-
REGION: **05**

INSPECTION DESCRIPTION

INSPECTION DATE: **03/15/1990**
INSPECTION AUTHORITY: **TOXIC SUBSTANCES CONTROL ACT (TSCA)**
INSPECTOR: **BUCHAN**
REASON FOR INSPECTON: **NEUTRAL SCHEME, STATE**
INVESTIGATION TYPE: **PCB, STORAGE**
FACILITY FUNCTION: **USER**
ACTION WARRANTED: **NO**

Back to Report Summary

MAP ID# 8 **Distance from Property: 0.24 mi. N**

SITE INFORMATION

FAC ID: **03-35-01-0055**

NAME: **OMEGA JV2-NAPOLEON**

ADDRESS: **1775 INDUSTRIAL DR**
NAPOLEON, OH 43545

COUNTY: **HENRY**

SITE DETAILS

EUID: **P001**

ERMIT BY RULE TYPE: **EMERGENCY ELECTRICAL GENERATORS, WATER PUMPS, OR AIR COMPRESSORS**

RECEIVED DATE: **05/01/13**

EFFECTIVE DATE: **05/14/13**

AGENCIES: **OHIO EPA DAPC, NORTHWEST DISTRICT OFFICE**

EUID DESCRIPTION:

BURNING OF LOW-SULFUR NO. 2 DIESEL FUEL TO GENERATE ELECTRICITY DURING EMERGENCIES AND PERIODS OF PEAK DEMAND

EUID: **P002**

ERMIT BY RULE TYPE: **EMERGENCY ELECTRICAL GENERATORS, WATER PUMPS, OR AIR COMPRESSORS**

RECEIVED DATE: **05/01/13**

EFFECTIVE DATE: **05/14/13**

AGENCIES: **OHIO EPA DAPC, NORTHWEST DISTRICT OFFICE**

EUID DESCRIPTION:

BURNING OF LOW-SULFUR NO. 2 DIESEL FUEL TO GENERATE ELECTRICITY DURING EMERGENCIES AND PERIODS OF PEAK DEMAND

EUID: **P003**

ERMIT BY RULE TYPE: **EMERGENCY ELECTRICAL GENERATORS, WATER PUMPS, OR AIR COMPRESSORS**

RECEIVED DATE: **05/01/13**

EFFECTIVE DATE: **05/14/13**

AGENCIES: **OHIO EPA DAPC, NORTHWEST DISTRICT OFFICE**

EUID DESCRIPTION:

BURNING OF LOW-SULFUR NO. 2 DIESEL FUEL TO GENERATE ELECTRICITY DURING EMERGENCIES AND PERIODS OF PEAK DEMAND

Back to Report Summary

National Pollutant Discharge Elimination System Permits (NPDES)

MAP ID# 9 **Distance from Property: 0.24 mi. SW**

SITE INFORMATION

PERMIT NUMBER: **2GR01931*BG**
NAME: **ALL OHIO #5473**
ADDRESS: **641 E RIVERVIEW AVENUE NAPOLEON, OH 43545**
COUNTY: **HENRY**
APPLICATION NAME: **SHELLY COMPANY**
APPLICATION ADDRESS: **PO BOX 266 THORNVILLE, OH 43076**
ISSUE DATE: **12/12/12**
TYPE: **INDUSTRIAL**

Back to Report Summary

Facility Registry System (FRSOH)

MAP ID# 10 **Distance from Property: 0.24 mi. NW**

FACILITY INFORMATION

REGISTRY ID: **110012512539**

NAME: **AMP-OHIO GAS TURBINE, NAPOLEON**

LOCATION ADDRESS: **775 INTERCHANGE DR**
NAPOLEON, OH 43545

COUNTY: **HENRY**

EPA REGION: **05**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

AMP-OHIO GAS TURBINE, NAPOLEON
AMP-OHIO GAS TURBINES NAPOLEON
PG&E NAPOLEON
PG&E NAPOLEON
NAPOLEON PEAKING STATION

PROGRAM/S LISTED FOR THIS FACILITY

AIRS/AFS - AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIRS FACILITY SYSTEM
CAMDBS - CAM DATABASE SYSTEM
EGRID - EMISSIONS & GENERATION RESOURCE INTEGRATED DATABASE
EIA-860 - *DEFINITION NOT PROVIDED BY REPORTING AGENCY

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

4911 - ELECTRIC SERVICES
4911 - ELECTRIC SERVICES

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

221112 - FOSSIL FUEL ELECTRIC POWER GENERATION.
221119 - OTHER ELECTRIC POWER GENERATION.

Back to Report Summary

MAP ID# 10 **Distance from Property: 0.24 mi. NW**

SITE INFORMATION

UNIQUE ID: **1017275**
PLANT ID: **1017275**
NAME: **AMP NAPOLEON GENERATION STATION**
ADDRESS: **775 INTERCHANGE DRIVE**
NAPOLEON, OH 43545
CLASSIFICATION: **ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS.**
OPERATION STATUS: **OPERATING**
STATE COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**
FACILITY TYPE: **PRIVATELY OWNED/OPERATED**
CURRENT HIGH PRIORITY VIOLATOR: **NOT REPORTED**
SIC DESCRIPTION: **ESTABLISHMENTS ENGAGED IN THE GENERATION, TRANSMISSION, AND/OR DISTRIBUTION OF ELECTRIC ENERGY FOR SALE.**

ENFORCEMENT ACTIONS

DATE ACHIEVED: **07/31/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/28/2013**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/03/2012**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/27/2012**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/30/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/14/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/10/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/10/2011**
DATE RECORDED: **10/27/2011**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **CARBON MONOXIDE**

ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/10/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/07/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/07/2011**
DATE RECORDED: **10/27/2011**
NATIONAL ACTION TYPE: **OWNER/OPERATOR-CONDUCTED SOURCE TEST**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **STACK TEST PASSED**
POLLUTANT: **CARBON MONOXIDE**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/29/2011**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/28/2011**
DATE RECORDED: **02/13/2014**

NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **06/03/2010**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/04/2010**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **03/26/2010**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **02/12/2010**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/13/2009**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/29/2009**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/19/2008**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **09/10/2008**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **07/21/2008**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**

POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/08/2008**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/30/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V COMPLIANCE CERTIFICATION REVIEW BY STATE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **IN COMPLIANCE**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/30/2007**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **TITLE V ANNUAL COMPL CERT DUE/RECVD BY STATE/LOCAL**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **04/10/2006**
DATE RECORDED: **10/10/2006**
NATIONAL ACTION TYPE: **SV REPORTED AS ADDRESSED**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **01/05/2006**

DATE RECORDED: **10/10/2006**
NATIONAL ACTION TYPE: **FINAL COMPLIANCE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **01/05/2006**
DATE RECORDED: **10/10/2006**
NATIONAL ACTION TYPE: **COMPL BY STATE, NO ACT REQ**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **12/01/2005**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **01/03/2005**
DATE RECORDED: **10/10/2006**
NATIONAL ACTION TYPE: **STATE NOV ISSUED**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **02/12/2004**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**

PENALTY AMOUNT: **0**

DATE ACHIEVED: **12/29/2003**
DATE RECORDED: **10/10/2006**
NATIONAL ACTION TYPE: **STATE REPORTED AS ADDED**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **12/28/2003**
DATE RECORDED: **10/10/2006**
NATIONAL ACTION TYPE: **STATE DAY ZERO**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **FACILITY-WIDE PERMIT REQUIREMENTS**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **12/23/2003**
DATE RECORDED: **10/10/2006**
NATIONAL ACTION TYPE: **STATE NOV ISSUED**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/25/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE CONDUCTED FCE/OFF=SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/13/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/ON-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, MACT (SECTION 63 NESHAPS), TITLE V PERMITS**

RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **11/03/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, NSPS, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

DATE ACHIEVED: **05/21/2003**
DATE RECORDED: **02/13/2014**
NATIONAL ACTION TYPE: **STATE PCE/OFF-SITE**
ALL AIR PROGRAM: **SIP SOURCE, FESOP -(NON-TITLE V)**
RESULTS OF STACK TEST AND TITLE V: **NOT REPORTED**
POLLUTANT: **NOT REPORTED**
ALL POLLUTION IN VIOLATION: **NOT REPORTED**
TYPE OF VIOLATION(S): **NOT REPORTED**
PENALTY AMOUNT: **0**

AIR PROGRAM

AIR PROGRAM STATUS: **PERMANENTLY CLOSED**
EPA COMPLIANCE STATUS: **NOT REPORTED**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **TOTAL HAP POLLUTANT**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**
POLLUTANT COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **CARBON MONOXIDE**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **NITROGEN DIOXIDE**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **TOTAL PARTICULATE MATTER**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **SULFUR DIOXIDE**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT: **VOLATILE ORGANIC COMPOUNDS**

AIR PROGRAM STATUS: **OPERATING**
EPA COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**
POLLUTANT COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**
POLLUTANT: **FACILITY-WIDE PERMIT REQUIREMENTS**

HISTORICAL COMPLIANCE AIR PROGRAM LEVEL

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**

COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0803**

HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**

COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1104**

HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**

COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1002**

HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**

COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0803**

HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**

COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1102**

HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1102**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0903**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**

COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0701**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1401**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0803**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0804**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1301**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0802**

HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0901**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1204**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1304**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1003**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0904**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1103**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1302**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0902**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0703**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**

COMPLIANCE DATE (YYYQ): **1104**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **1303**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE (AUTO-GENERATED)**

AIR PROGRAM: **NSPS**
COMPLIANCE DATE (YYYQ): **0702**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1203**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **1001**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1202**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1201**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **1101**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **SIP SOURCE**
COMPLIANCE DATE (YYYQ): **1004**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0604**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0704**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **TITLE V PERMITS**
COMPLIANCE DATE (YYYQ): **1002**
HISTORICAL COMPLIANCE STATUS: **IN COMPLIANCE - INSPECTION**

AIR PROGRAM: **MACT (SECTION 63 NESHAPS)**
COMPLIANCE DATE (YYYQ): **0801**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

AIR PROGRAM: **FESOP -(NON-TITLE V)**
COMPLIANCE DATE (YYYQ): **0802**
HISTORICAL COMPLIANCE STATUS: **IN VIOLATION - NO SCHEDULE**

Back to Report Summary

National Pollutant Discharge Elimination System Permits (NPDES)

MAP ID# 11 **Distance from Property: 0.25 mi. NW**

SITE INFORMATION

PERMIT NUMBER: **2GC03123*AG**
NAME: **AMP NAPOLEON SOLAR FACILITY**
ADDRESS: **1645 COMMERCE DR NAPOLEON, OH 43545**
COUNTY: **HENRY**
APPLICATION NAME: **AMERICAN MUNICIPAL POWER (AMP) OHIO INC**
APPLICATION ADDRESS: **1111 SCHROCK RD-STE 100 COLUMBUS, OH 43229**
ISSUE DATE: **03/27/12**
TYPE: **CONSTRUCTION**

Back to Report Summary

Unlocatable Summary

This list contains sites that could not be mapped due to limited or incomplete address information.

Database Name	Site ID#	Site Name	Address	City/State/Zip/County
FRSOH	110020924286		CIAR, RT 12	NOT IN A CITY 43545 Henry
FRSOH	110008625540	GERALD GRAIN ASSOCIATION	RTE 1	NAPOLEON 43545 Henry
FRSOH	110011405256	IMPERIAL CLEVITE INC ELASTOMER PROD	SR 424	NAPOLEON 43545 Henry
LUST	35009973*LUST	CIRT	E MAUMEE AVE	NAPOLEON 43545 Henry
LUST	35009960*LUST	CLEVITE ELASTOMERS	RT 424 EAST	NARPOLEON 43545 Henry
LUST	35009964*LUST	GERALD GRAIN CENTER	RR1 BOX 84	NAPOLEON 43545 Henry
NCDBI	19920922OH0251	IMPERIAL CLEVITE INC ELASTOMER PROD	SR 424	NEPOLEON 43545- Henry
NPDES	2GC01257*AG	TWIN OAKS - 6TH ADDITION	ST RTE 424 NAPOLEON	RTE 424 NAPOLEON 43545 Henry
RCRANGR05	OHD980616429*NG	IMPERIAL CLEVITE INC	ROUTE 424	NAPOLEON 43545 Henry

Environmental Records Definitions - FEDERAL

AIRSAFS Aerometric Information Retrieval System / Air Facility Subsystem

VERSION DATE: 04/28/14

The United States Environmental Protection Agency (EPA) modified the Aerometric Information Retrieval System (AIRS) to a database that exclusively tracks the compliance of stationary sources of air pollution with EPA regulations: the Air Facility Subsystem (AFS). Since this change in 2001, the management of the AIRS/AFS database was assigned to EPA's Office of Enforcement and Compliance Assurance.

BF Brownfields Management System

VERSION DATE: 04/15/14

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment.

BRS Biennial Reporting System

VERSION DATE: 12/31/11

The United States Environmental Protection Agency (EPA), in cooperation with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The Biennial Report captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities. Currently, the EPA states that data collected between 1991 and 1997 was originally a part of the defunct Biennial Reporting System and is now incorporated into the RCRAInfo data system.

CDL Clandestine Drug Laboratory Locations

VERSION DATE: 09/06/13

The U.S. Department of Justice ("the Department") provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

CERCLIS Comprehensive Environmental Response, Compensation & Liability Information System

VERSION DATE: 10/25/13

CERCLIS is the repository for site and non-site specific Superfund information in support of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This United States Environmental Protection Agency database contains an extract of sites that have been investigated or are in the process of being investigated for potential environmental risk.

DNPL Delisted National Priorities List

VERSION DATE: 10/25/13

This database includes sites from the United States Environmental Protection Agency's Final National Priorties List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

DOCKETS EPA Docket Data

VERSION DATE: 12/22/05

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

DOD Department of Defense Sites

VERSION DATE: 12/01/05

This information originates from the National Atlas of the United States Federal Lands data, which includes lands owned or administered by the Federal government. Army DOD, Army Corps of Engineers DOD, Air Force DOD, Navy DOD and Marine DOD areas of 640 acres or more are included.

EC Federal Engineering Institutional Control Sites

VERSION DATE: 01/14/14

This database includes site locations where Engineering and/or Institutional Controls have been identified as part of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination.

ERNSOH Emergency Response Notification System

VERSION DATE: 07/27/14

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

FRSOH Facility Registry System

VERSION DATE: 08/04/13

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the Facility Registry System (FRS) as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The Facility Registry System replaced the Facility Index System or FINDS database.

FUDS Formerly Used Defense Sites

VERSION DATE: 06/01/14

The 2012 Formerly Used Defense Sites (FUDS) inventory includes properties previously owned by or leased to the United States and under Secretary of Defense Jurisdiction, as well as Munitions Response Areas (MRAs). The remediation of these properties is the responsibility of the Department of Defense. This data is provided by the U.S. Army Corps of Engineers (USACE), the boundaries/polygon data are based on preliminary findings and not all properties currently have polygon data available. DISCLAIMER: This data represents the results of data collection/processing for a specific USACE activity and is in no way to be considered comprehensive or to be used in any legal or official capacity as presented on this site. While the USACE has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either expressed or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. For additional information on Formerly Used Defense Sites please contact the USACE Public Affairs Office at (202) 528-4285.

HISTPST Historical Gas Stations

VERSION DATE: 07/01/30

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

HMIRSR05 Hazardous Materials Incident Reporting System

VERSION DATE: 01/10/14

The HMIRS database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation located in EPA Region 5. Region 5 includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

ICIS Integrated Compliance Information System (formerly DOCKETS)

VERSION DATE: 08/01/12

ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.

ICISNPDES Integrated Compliance Information System National Pollutant Discharge Elimination System

VERSION DATE: 08/01/12

In 2006, the Integrated Compliance Information System (ICIS) - National Pollutant Discharge Elimination System (NPDES) became the NPDES national system of record for select states, tribes and territories. ICIS-NPDES is an information management system maintained by the United States Environmental Protection Agency's Office of Compliance to track permit compliance and enforcement status of facilities regulated by the NPDES under the Clean Water Act. ICIS-NPDES is designed to support the NPDES program at the state, regional, and national levels.

LUCIS Land Use Control Information System

VERSION DATE: 09/01/06

The LUCIS database is maintained by the U.S. Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

MLTS Material Licensing Tracking System

VERSION DATE: 01/30/13

MLTS is a list of approximately 8,100 sites which have or use radioactive materials subject to the United States Nuclear Regulatory Commission (NRC) licensing requirements.

NCDBC National Compliance Database System

VERSION DATE: 09/01/06

NCDB is the historical repository for national data from the United States Environmental Protection Agency's ten regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS was transferred to NCDB to support the need for monitoring national performance of the following programs: Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), Toxic Substance Control Act (TSCA) , Emergency Planning and Right-to-Know Act, Section 313 (EPCRA) , Asbestos Hazard Emergency Response (AHERA) . NCDBC contains administrative case listings. Since October 2006, the EPA has been entering new case information into

the Integrated Compliance Information System (ICIS). Please refer to ICIS as the current system of record for this data.

NCDBI National Compliance Database System

VERSION DATE: 09/01/06

NCDB is the historical repository for national data from the United States Environmental Protection Agency's ten regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS was transferred to NCDB to support the need for monitoring national performance of the following programs: Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), Toxic Substance Control Act (TSCA) , Emergency Planning and Right-to-Know Act, Section 313 (EPCRA) , Asbestos Hazard Emergency Response (AHERA) . NCDBI contains facility inspection information. Since October 2006, the EPA has been entering new inspection information into the Integrated Compliance Information System (ICIS). Please refer to ICIS as the current system of record for this data.

NFRAP No Further Remedial Action Planned Sites

VERSION DATE: 10/25/13

This database includes sites which have been determined by the United States Environmental Protection Agency, following preliminary assessment, to no longer pose a significant risk or require further activity under CERCLA. After initial investigation, no contamination was found, contamination was quickly removed or contamination was not serious enough to require Federal Superfund action or NPL consideration.

NLRRCRAC No Longer Regulated RCRA Corrective Action Facilities

VERSION DATE: 04/10/14

This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

NLRRCRAG No Longer Regulated RCRA Generator Facilities

VERSION DATE: 04/10/14

This database includes RCRA Generator facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly generated hazardous waste.
Large Quantity Generators: Generate 1,000 kg or more of hazardous waste during any calendar month; or Generate more than 1 kg of acutely hazardous waste during any calendar month; or Generate more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month; or Generate 1 kg or less of acutely hazardous waste during any calendar month, and accumulate more than 1kg of acutely hazardous waste at any time; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulated more than 100 kg of that material at any time.

Small Quantity Generators: Generate more than 100 and less than 1000 kilograms of hazardous waste during any calendar month and accumulate less than 6000 kg of hazardous waste at any time; or Generate 100 kg or less of hazardous waste during any calendar month, and accumulate more than 1000 kg of hazardous waste at any time.
Conditionally Exempt Small Quantity Generators: Generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or Generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

NLRRCRAT No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 04/10/14

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

NPDESR05 National Pollutant Discharge Elimination System

VERSION DATE: 04/01/07

Information in this database is extracted from the Water Permit Compliance System (PCS) database which is used by United States Environmental Protection Agency to track surface water permits issued under the Clean Water Act. This database includes permitted facilities located in EPA Region 5. This region includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. The NPDES database was collected from December 2002 until April 2007. Refer to the PCS and/or ICIS-NPDES database as source of current data.

NPL National Priorities List

VERSION DATE: 10/25/13

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

ODI Open Dump Inventory

VERSION DATE: 06/01/85

The open dump inventory was published by the United States Environmental Protection Agency. An “open dump” is defined as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the

criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste. This inventory has not been updated since June 1985.

PADS PCB Activity Database System

VERSION DATE: 06/01/13

The PCB Activity Database System (PADS) is used by the United States Environmental Protection Agency to monitor the activities of polychlorinated biphenyls (PCB) handlers.

PCSR05 Permit Compliance System

VERSION DATE: 08/01/12

The Permit Compliance System is used in tracking enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act and is maintained by the United States Environmental Protection Agency's Office of Compliance. PCS is designed to support the NPDES program at the state, regional, and national levels. This database includes permitted facilities located in EPA Region 5. This region includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

PNPL Proposed National Priorities List

VERSION DATE: 10/25/13

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC Resource Conservation & Recovery Act - Corrective Action Facilities

VERSION DATE: 04/10/14

This database includes hazardous waste sites listed with corrective action activity in the RCRAInfo system. The Corrective Action Program requires owners or operators of RCRA facilities (or treatment, storage, and disposal facilities) to investigate and cleanup contamination in order to protect human health and the environment. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS).

RCRAGR05 Resource Conservation & Recovery Act - Generator Facilities

VERSION DATE: 04/10/14

This database includes sites listed as generators of hazardous waste (large, small, and exempt) in the RCRAInfo

system. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). This database includes sites located in EPA Region 5. This region includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.
Large Quantity Generators: Generate 1,000 kg or more of hazardous waste during any calendar month; or Generate more than 1 kg of acutely hazardous waste during any calendar month; or Generate more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month; or Generate 1 kg or less of acutely hazardous waste during any calendar month, and accumulate more than 1kg of acutely hazardous waste at any time; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulated more than 100 kg of that material at any time.
Small Quantity Generators: Generate more than 100 and less than 1000 kilograms of hazardous waste during any calendar month and accumulate less than 6000 kg of hazardous waste at any time; or Generate 100 kg or less of hazardous waste during any calendar month, and accumulate more than 1000 kg of hazardous waste at any time.
Conditionally Exempt Small Quantity Generators: Generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or Generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste; or Generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, or acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

RCRANGR05 Resource Conservation & Recovery Act - Non-Generator Facilities

VERSION DATE: 04/10/14

This database identifies RCRAInfo system sites that only handle hazardous waste, such as transporters, without generating any amount hazardous waste. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). This database includes sites located in EPA Region 5. This region includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

RCRASC RCRA Sites with Controls

VERSION DATE: 01/14/14

This list of Resource Conservation and Recovery Act sites with institutional controls in place is provided by the

U.S. Environmental Protection Agency.

RCRAT Resource Conservation & Recovery Act - Treatment, Storage & Disposal Facilities

VERSION DATE: 04/10/14

This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste in the RCRAInfo system. The United States Environmental Protection Agency defines RCRAInfo as the comprehensive information system which provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS).

RODS Record of Decision System

VERSION DATE: 07/01/13

These decision documents maintained by the United States Environmental Protection Agency describe the chosen remedy for NPL (Superfund) site remediation. They also include site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, and scope and role of response action.

SFLIENS CERCLIS Liens

VERSION DATE: 06/08/12

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete.

SSTS Section Seven Tracking System

VERSION DATE: 12/31/09

The United States Environmental Protection Agency tracks information on pesticide establishments through the Section Seven Tracking System (SSTS). SSTS records the registration of new establishments and records pesticide production at each establishment. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires that production of pesticides or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, and relabeling.)

TRI Toxics Release Inventory

VERSION DATE: 12/31/12

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on

toxic chemical releases and waste management activities from certain industries as well as federal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

TSCA Toxic Substance Control Act Inventory

VERSION DATE: 12/31/06

The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and importer site.

Environmental Records Definitions - STATE (OH)

AIRS Permit by Rule Air Facilities

VERSION DATE: 09/18/14

A permit-by-rule is a specific permit provision in the Ohio Administrative Code that applies to certain types of low-emitting air pollution sources. This active list of Permit by Rule facilities is provided by the Ohio Environmental Protection Agency.

BF Brownfield Inventory Database

VERSION DATE: 10/01/14

The Ohio Environmental Protection Agency maintains this inventory of brownfield properties. Most of the properties contained in the inventory have received funding through either the Clean Ohio Assistance Fund or Clean Ohio Revitalization Fund. There are also some properties listed that have received funding through U.S. EPA's Brownfield Grants. In addition, cities, counties, townships, villages and private property owners are encouraged to list their brownfield properties on this Inventory.

DERRIC Institutional Controls

VERSION DATE: 03/07/14

This list contains sites with institutional controls in place tracked within the Division of Emergency & Remedial Response (DERR) database. This data is provided by the Ohio Environmental Protection Agency.

DERRUSD Urban Setting Designations

VERSION DATE: 09/04/14

This list of Urban Setting Designations (USD) tracked within the Division of Emergency & Remedial Response database is provided by the Ohio Environmental Protection Agency (Ohio EPA). According to the Ohio EPA, for some areas in Ohio with urban land use, ground water is not relied upon as a potable water supply since alternative community water systems supply residents with safe drinking water; therefore, potentially contaminated ground water poses no potable use risk to the community. USD areas utilize voluntary actions to protect humans and ecological receptors from any exposures including exposures to ground water not related to drinking, showering, bathing, or cooking.

LUST Leaking Underground Storage Tank Facilities

VERSION DATE: 09/17/14

The Bureau of Underground Storage Tank Regulations (BUSTR), a bureau of the State of Ohio Fire Marshal's office of the Ohio Department of Commerce, maintains this database of facilities with active releases from regulated tanks. On March 30, 1987, the State Fire Marshal created BUSTR to develop the underground storage tank program and to administer the federal Leaking Underground Storage Tank Trust Fund. BUSTR is financed through a combination a federal grants in combination with annual registration fees and permit fees. BUSTR's mission is to effectively regulate the safe operation of underground storage tanks and to ensure

appropriate investigation and cleanup of releases from underground storage tanks for the purpose of protecting human health and the environment for the citizens of Ohio.

NPDES National Pollutant Discharge Elimination System Permits

VERSION DATE: 09/18/14

This database contains facilities with National Pollutant Discharge Elimination System (NPDES) Storm Water General Permits Coverage authorization to discharge to surface waters of Ohio, including Construction Storm Water, Industrial Storm Water, and Small MS4 General Permits. The data is provided by the Ohio Environmental Protection Agency's Division of Surface Water.

SC Sites with Controls

VERSION DATE: 09/03/14

As stated by the Ohio Environmental Protection Agency, Ohio's Voluntary Action Program (VAP) was established to allow the private sector to clean up brownfields – previously-developed sites with potential contamination from industrial or commercial activity that were not being redeveloped due to fear of litigation. The VAP sets standards for contaminated site assessment and remediation and reviews the activities conducted by certified professionals based on those standards to issue covenants not to sue (CNSs). This site listing includes those VAP sites with issued CNSs dated since 2008 that have institutional and/or engineering controls in place.

SPILLS Spills Listing

VERSION DATE: 08/20/14

This database of hazardous material spills is provided by the Emergency Response Program of the Ohio Environmental Protection Agency. The data includes spills reported since 1994.

SWF Solid Waste Facilities

VERSION DATE: 08/11/14

Municipal Solid Waste Landfills, Construction and Demolition Debris Landfills, and Municipal Solid Waste Transfer Facilities are included in this Ohio Environmental Protection Agency licensed solid waste facility list.

UST Underground Storage Tank Facilities

VERSION DATE: 09/17/14

The Bureau of Underground Storage Tank Regulations (BUSTR), a bureau of the State of Ohio Fire Marshal's office of the Ohio Department of Commerce, maintains this database of active and inactive registered facilities. On March 30, 1987, the State Fire Marshal created BUSTR to develop the underground storage tank program and to administer the federal Leaking Underground Storage Tank Trust Fund. BUSTR is financed through a combination a federal grants in combination with annual registration fees and permit fees. BUSTR's mission is to effectively regulate the safe operation of underground storage tanks and to ensure appropriate investigation and

cleanup of releases from underground storage tanks for the purpose of protecting human health and the environment for the citizens of Ohio.

VAPS Voluntary Action Program Sites

VERSION DATE: 09/02/14

The Ohio Environmental Protection Agency's Division of Environmental Response and Revitalization maintains this list of current Voluntary Action Program projects. This program was created to give individuals a way to investigate possible environmental contamination, clean it up if necessary and receive a promise from the State of Ohio that no more cleanup is needed. For those projects where a covenant not to sue has been issued, this is the endpoint of the voluntary action process. This list also includes Class C release designation sites as of February 2012. Class C sites, pursuant to HB 153, are eligible for the VAP as long as the release has been determined by the BUSTR to be a release of petroleum occurring or identified from a UST system subject to the Bureau of Underground Storage Tank Regulations (BUSTR) laws, where the responsible person for the release is specifically determined by BUSTR to not be a viable person capable of undertaking or completing the required corrective actions.

Environmental Records Definitions - TRIBAL

INDIANRES Indian Reservations

VERSION DATE: 01/01/00

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.

LUSTR05 Leaking Underground Storage Tanks On Tribal Lands

VERSION DATE: 11/06/13

This database, provided by the United States Environmental Protection Agency (EPA), contains leaking underground storage tanks on Tribal lands located in EPA Region 5. Region 5 includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

ODINDIAN Open Dump Inventory on Tribal Lands

VERSION DATE: 11/08/06

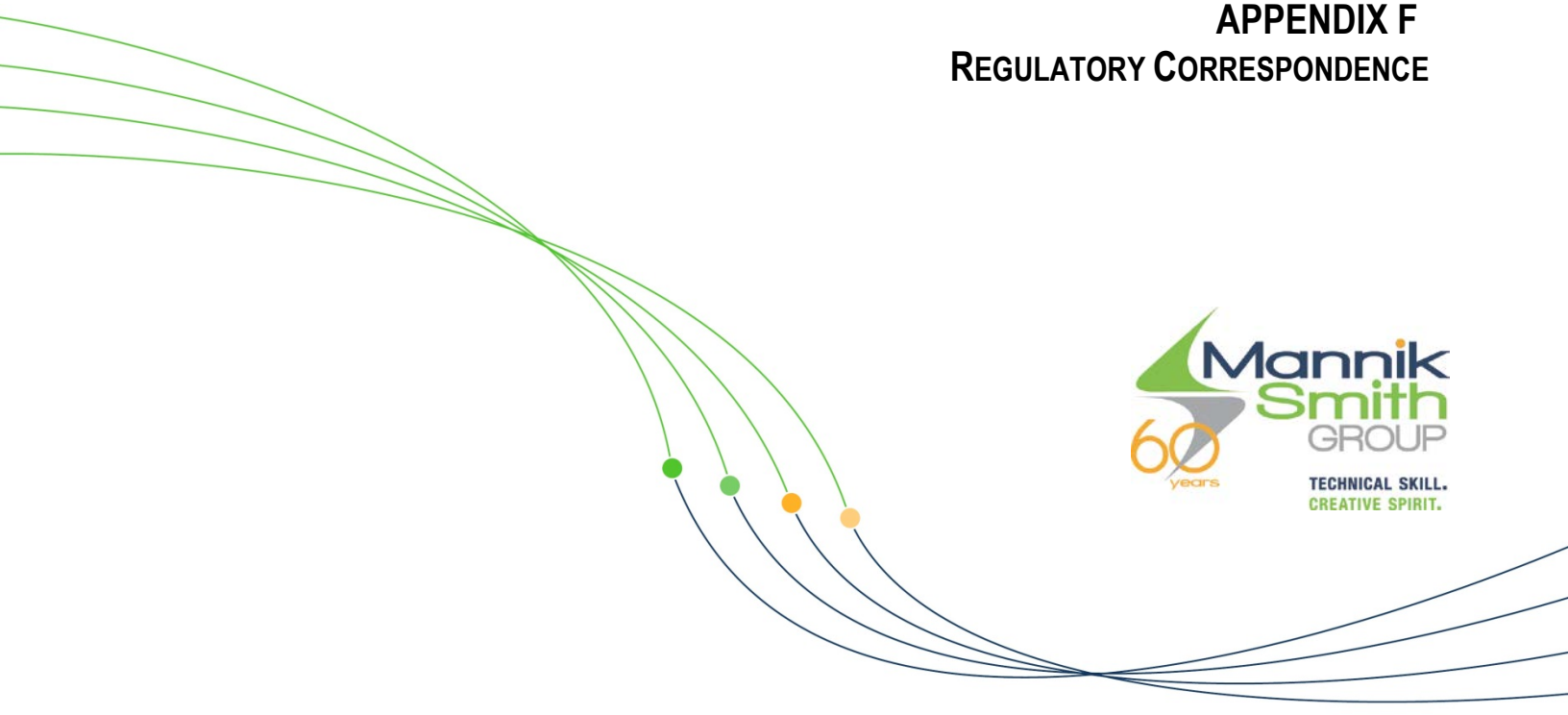
This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

USTR05 Underground Storage Tanks On Tribal Lands

VERSION DATE: 11/04/13

This database, provided by the United States Environmental Protection Agency (EPA), contains underground storage tanks on Tribal lands located in EPA Region 5. Region 5 includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

APPENDIX F
REGULATORY CORRESPONDENCE



1800 Indian Wood Circle, Maumee, Ohio 43537
Tel: 419.891.2222 Fax: 419.891.1595
www.MannikSmithGroup.com

FOIA REQUEST

To:	BUSTR	From:	Ryne Sundvold
	Nancy Caldwell	Date:	October 31, 2014
Fax:		Phone:	Pages: 2
E-mail:	Nancy.Caldwell@com.state.oh.us	Project #:	PID 22984
Re:	File Review Request		

The attached items are transmitted as checked below:

☐ For review ☐ Please comment ☐ Urgent
☒ Please Reply ☐ As requested ☐ Approved as noted
☒ Please Recycle ☐ Other:

Please accept this request for information you may have related to the following site:

Parcel #: 22-070004.0100

Parcel #: 28-070060.0000 and 28-070064.0000

I am interested in any files you may have concerning the possible release of petroleum products on the property. Additionally, please provide any information pertaining to the existance of USTs and/or ASTs on the property. If you have no information pertinent to this site please respond to this request in writing (an email is sufficient).

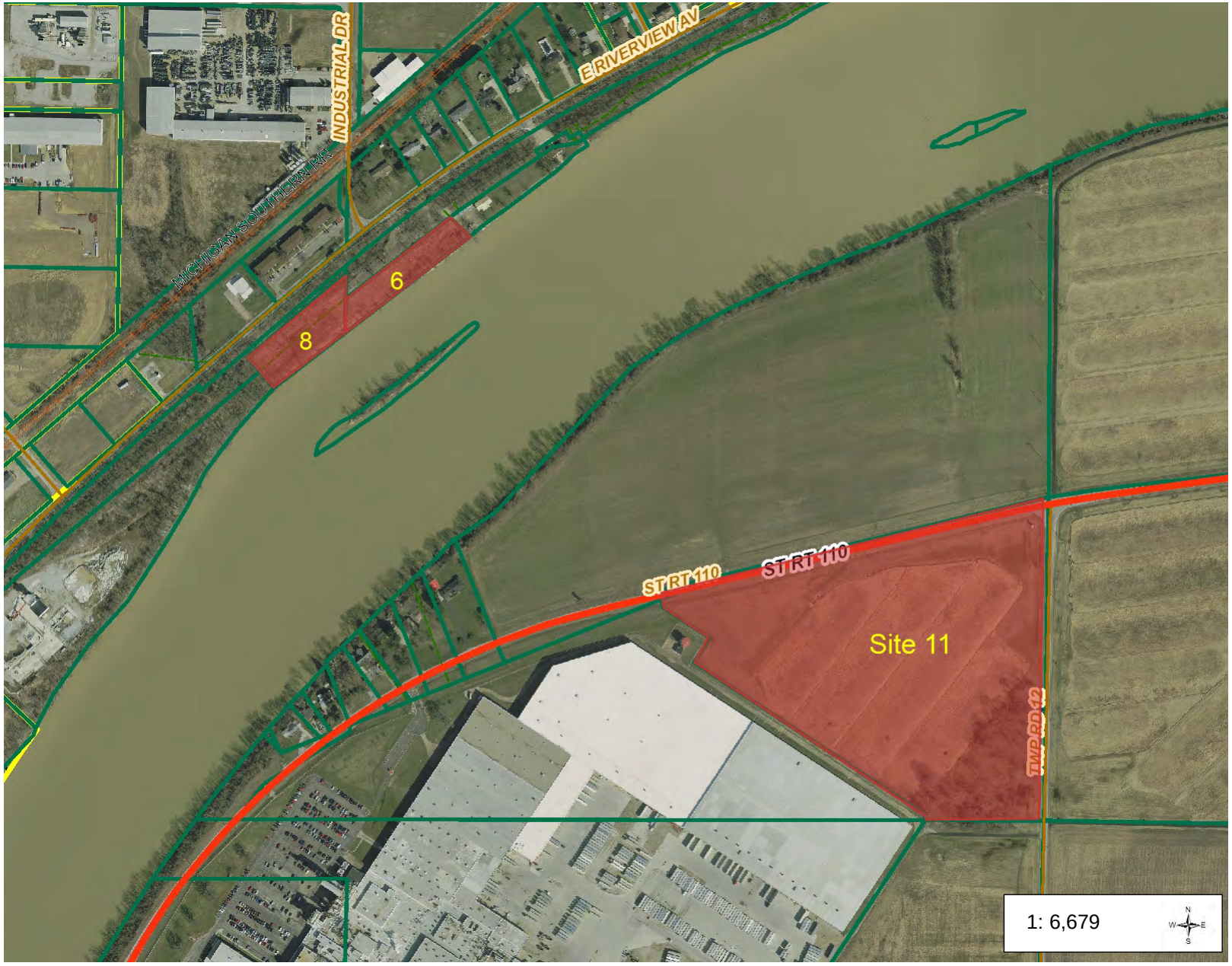
If you have any questions or require additional information, please feel free to contact me at the office number above and or via email at RSundvold@MannikSmithGroup.com.

Thanks.

(If there are any problems in transmission or I have sent you something in error, please advise).

Confidentiality Statement:
The information contained in this document is intended for the personal and confidential use of the above-named person(s). If the bearer/reader of this message is not said person (or, the employee responsible for delivering facsimiles) then you are notified of erroneous reception of this facsimile and any review, copying, or distribution of this facsimile is prohibited.

Henry County, Ohio



Legend

- Highways
- Street CenterLines
- Active Railroads
- Abandoned Railroads
- Parcel Info
- Subdivision Lines
- Historic Parcel Lines
- Historic Lot Lines
- Lot Lines

Henry_RGB_30x.sid

- Red: Band_1
- Green: Band_2
- Blue: Band_3

Notes

Enter Map Description

1,113.2 0 556.59 1,113.2 Feet

NAD_1983_StatePlane_Ohio_North_FIPS_3401_Feet

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

Matt Pesci - Public Information Request Received

From: OTTER SERVER <bust01@com.state.oh.us>
To: <mpesci@manniksmithgroup.com>
Date: 1/15/2015 11:12 AM
Subject: Public Information Request Received

OTTER (Ohio Tank Tracking & Environmental Regulations)

Your public information request dated 01/15/2015 has been received by the Bureau of Underground Storage Tank Regulations (BUSTR). You will be notified by BUSTR with the result of your request in the near future. Please contact our records management section at (614) 387-7412 if you have any questions.
Sincerely,
Nancy Caldwell, Records Manager

****
The information transmitted is intended solely for the individual or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of or taking action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you have received this email in error please contact the sender and delete the material from any computer. **********

Ohio Department of Commerce

An Equal Opportunity Employer & Service Provider

George V. Voinovich, Governor

Division of State Fire Marshal • Bureau of Underground Storage Tank Regulations
8895 East Main Street, P.O. Box 687 • Reynoldsburg, OH 43068-0687
(614) 752-7938 • FAX (614) 752-7942

Donna Owens, Director

NOV 1 0 1995

JON SCOTT
CAMPBELL SOUP CO
PO BOX 311
NAPOLEON OH 43545

SITE: CAMPBELL SOUP CO
(95 REMOVAL)
E MAUMEE AVE
NAPOLEON OH
HENRY COUNTY
INCIDENT #3591208-01

RE: NO FURTHER ACTION STATUS

Dear Mr. Scott:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed all information submitted for this site. Based on this information, BUSTR requires no further action involving corrective actions for remediation under the regulatory framework.

If you feel that you are entitled to reimbursement you should contact the Petroleum Underground Storage Tank Release Compensation Board (PUSTRCB) at P.O Box 163188, Columbus, Ohio 43216, (614) 752-8963 or (800) 224-4659. PUSTRCB administers Ohio's assurance fund and is a separate entity apart from BUSTR.

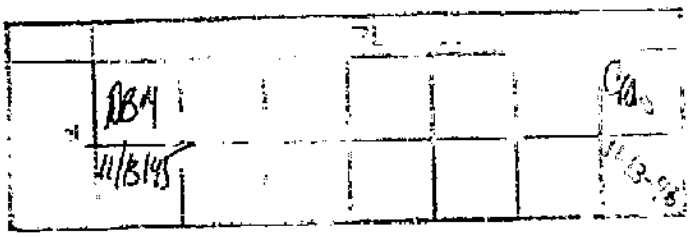
Thank you for your cooperation. If you have any questions, please contact Doug Thompson at (614) 752-7094.

Sincerely,

Diane B. McClure
Acting Corrective Actions Supervisor

DBM:PDT:cah

xc: Site File
Allan Woo, Napoleon Fire Dept.
Hans Schmalzried, Henry Co. Health Dept.



Ohio...

CLOSURE ASSESSMENT REVIEW

(FOR USE WITH USTS REMOVED AFTER 12/21/91)

OWNERSHIP OF TANKS	LOCATION OF TANKS
OWNER# 686 CAMPBELL SOUP CO. PO BOX 51 NAPOLEON, OH. 43545 ATTN: JON SCOTT	INC# 3591208-01 FAC# 350059 CAMPBELL SOUP CO. E. MAUMEE AVE. NAPOLEON, OH. 43545

UST SYSTEM INFORMATION

Report Received Date: 7-28- 1995

Removal/Abandonment Date: 6-12- 1995					STATUS		
TANK NO.	AGE	CAPACITY	MATERIAL	PRODUCT	TANK	PIPE	DISP
1		10 000	STEEL	N/A	Rm		
2		10 000	"	N/A	Rm		
3		10 000 *	"	HEAVY NAPTHA / ALUMINUM ACID	Rm		
4							
5							
6							

* DOUBLE COMPARTMENT

Laboratory analytical results (highest results)

			WATER
Benzene	_____	ug/kg	<2 ug/kg
Toluene	_____	ug/kg	<2 "
E-benzene	_____	ug/kg	<2 "
Xylene	_____	ug/kg	<2 "
TPH	_____	mg/kg	N/A

SFSS Category 1 2 (3) 4 (CIRCLE ONE)

Overexcavation: Yes / (No) BUSTR Approval: Yes No

Other analytes or comments: Groundwater encountered in tank cavity - 20,000 gallons removed

Site Management Remarks: Site qualifies for NFA Status

STATUS: NFA X ICR ___ Priority 2 Classification 1 LTF 1 (6) Site Coordinator COLL

Reviewed By: [signature] Date: 8-18-95 / 11-3-95

Approved By: Wilma B. McClure Date: 11/13/95

Entry By: S. Unger Date NOV 14 1995

Effective Date June 22, 1994

REPORT INFORMATION

ACTIVITY	REPORTED INFORMATION		DATE RESOLVED
	YES	DEFICIENT	
FIELD			
Field screening methods/numbers	✓		
Field screening readings	✓		
SAMPLING			
Containers/proper preservation	✓		
Sampling methods/tools	✓		
Locations/numbers of samples	✓		
Samples split for screen/lab	✓		
Water evaluation/24 hour wait	✓		
LABORATORY			
Correct samples submitted	✓		
Chain of custody	✓		
Analyzed within holding time	✓		
Test methods/detection limits	✓		
Lab reports (date, analyst)	✓		
REPORT			
Owner, operator, facility information	✓		
Closure form complete (signed)	✓		
Wastewater and UST contents disposal	✓		
UST system disposal	✓		
Site map of facility and area	✓		

WASTE DISPOSAL INFORMATION

Laboratory analytical results (highest results)

Benzene <90 ug/kg

Toluene <90 ug/kg

Ethylbenzene <90 ug/kg

Xylene 120 ug/kg

TPH 44 mg/kg

Quantity 400 cubic yards/tons

Acceptable soil disposal (Yes) No

Used as backfill ____

Landfill or remediation X

Stockpiled on-site X

ole 11-3-95

Location: _____

Comments _____

Deficiency letters sent: 1. _____, 19__ 2. _____, 19__

Campbell SOUP Company

NAPOLEON, OHIO 43545

November 1, 1995

Paul D. Thompson
Environmental Specialist
Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
8895 East Main Street
P.O. Box 687
Reynoldsburg, OH 43068-0687

Dear Mr. Thompson:

Enclosed you will find the additional information you requested per your August 22, 1995 letter. Please feel free to contact me at 419-599-6794 if you have any questions or concerns.

Sincerely,

CAMPBELL SOUP COMPANY

Jon Scott
Environmental Engineer

Enclosures

CERTIFIED
P 922 034 060
MAIL

Ohio Department of Commerce

An Equal Opportunity Employer & Service Provider

George V. Voinovich, Governor

Division of State Fire Marshal • Bureau of Underground Storage Tank Regulations
8895 East Main Street, P.O. Box 687 • Reynoldsburg, OH 43068-0687
(614) 752-7938 • FAX (614) 752-7942

Donna Owens, Director

AUG 2 2 1995

JON SCOTT
CAMPBELL SOUP CO
P O BOX 311
NAPOLEON OH 43545

SITE: CAMPBELL SOUP CO
E MAUMEE AVE
NAPOLEON OH
HENRY COUNTY
INCIDENT #3591208-01

RE. ADDITIONAL INFORMATION REQUESTED

Dear Mr. Scott:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed your report titled "Closure Plan for Campbell Soup Company" dated July 1995.

Based on our review of this report, BUSTR requests that information on the following points be supplied so we can determine the status of your site.

1. Approximately 400 cubic yards of excavated soil from the tank cavity remains stockpiled on this site. Analytical testing by EPA Method 8100 (modified) confirmed that high levels of contamination are present in this soil. Therefore, a remedial action plan (RAP) must be submitted to BUSTR within 90 days of this letter.

2. If you choose to dispose of the soil at a licensed disposal facility, please provide a copy of the waste disposal manifest to our Bureau

Please submit this information to BUSTR within 90 days from the date of this letter.

Thank you for your cooperation. If you have any questions, please contact me at (614) 752-7094.

Sincerely,

Paul D. Thompson
Environmental Specialist

PDT:KH:dep

xc: Site File

INVOICE 4858

Customer No CAM01

Cousins Waste Control Corp
[illegible] MATZINGER ROAD
[illegible]LEDO OH 43612
Phone 419/726-1500

#55

Sold To:
CAMPBELL SOUP
P O BOX 311
NAPOLEON, OH 43545

Ship To:
CAMPBELL SOUP
E. MAUMEE AVENUE
NAPOLEON, OH 43545

Date	Ship Via	FOB	Terms
9/26/95			NET 30 DAYS

Purchase Order Number	Order Date	Salesperson	Our Order Number
0040012656	09/25/95	02	8767

Quantity Ordered	Quantity Shipped / Backordered	U/M	Item Number / Description	Taxable / Discount	Unit Price	Amount
1.000	1.000	EA	SUBCONT LOADING, HAULING AND DISPOSAL OF CONTAMINATED PEA GRAVEL AT EVERGREEN LANDFILL (175.92 TONS) THANK YOU WE APPRECIATE YOUR BUSINESS	N	7956.50	7956.90

Post-it® Fax Note 7671 | Date 10/31 | # of pages 1
To M. Scott | From Susan
Co./Dept. Campbell | Co. Cousins
Phone # 419-599-6672 | Phone # 726-1500
Fax # 419-599-6794 | Fax # 229-8501

Non-Taxable Subtotal	7955.90
Taxable Subtotal	0.00
Tax	0.00
Total Invoice	7955.90

Page 1

Triplicate Copy

-31-1995 12:31

Ohio Department of Commerce
An Equal Opportunity Employer & Service Provider
George V. Voinovich, Governor

Division of State Fire Marshal • Bureau of Underground Storage Tank Regulations
8995 East Main Street, P.O. Box 687 • Reynoldsburg, OH 43068-0687
(614) 752-7938 • FAX (614) 752-7942
Donna Owens, Director

AUG 22 1995

JON SCOTT
CAMPBELL SOUP CO
P O BOX 311
NAPOLEON OH 43545

SITE: CAMPBELL SOUP CO
E MAUMEE AVE
NAPOLEON OH
HENRY COUNTY
INCIDENT #3591208-01

RE: ADDITIONAL INFORMATION REQUESTED

Dear Mr. Scott:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed your report titled "Closure Plan for Campbell Soup Company" dated July 1995.

Based on our review of this report, BUSTR requests that information on the following points be supplied so we can determine the status of your site.

1. Approximately 400 cubic yards of excavated soil from the tank cavity remains stockpiled on this site. Analytical testing by EPA Method 8100 (modified) confirmed that high levels of contamination are present in this soil. Therefore, a remedial action plan (RAP) must be submitted to BUSTR within 90 days of this letter.

2. If you choose to dispose of the soil at a licensed disposal facility, please provide a copy of the waste disposal manifest to our Bureau.

Please submit this information to BUSTR within 90 days from the date of this letter.

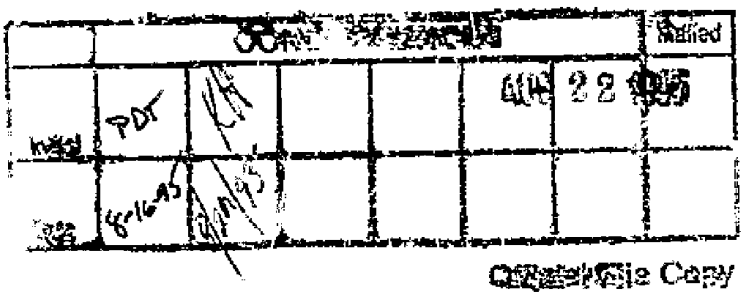
Thank you for your cooperation. If you have any questions, please contact me at (614) 752-7094.

Sincerely,

Jeff D. Thompson
Environmental Specialist

PDT KH:dep

xc: Site File



Office File Copy

Ohio Department of Commerce

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Donna Owens, Director

Division of State Fire Marshal • Bureau of Underground Storage Tank Regulations
8895 East Main Street, P.O. Box 687 • Reynoldsburg, OH 43068-0687
(614) 752-7938 • FAX (614) 752-7942

AUG 10 1995

JON SCOTT
CAMPBELL SOUP CO
P O BOX 311
NAPOLEON OH 43545

SITE: CAMPBELL SOUP CO
E MAUMEE AVE
NAPOLEON OH
HENRY COUNTY
INCIDENT #3591208-01

RE: CHANGE OF INCIDENT NUMBER

Dear Mr. Scott:

To simplify the tracking of this site, the Bureau of Underground Storage Tank Regulations has changed your incident number.

3550557-00	**to**	**3591208-01**
(Discontinued)	**→→→**	**(To be used)**

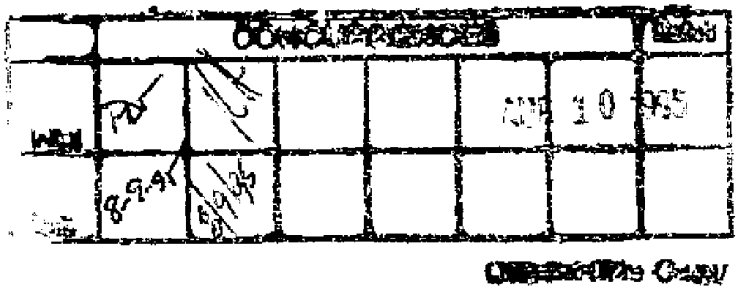
Please use the new incident number on all your correspondence. Thank you for your cooperation. If you have any questions, please contact me at (614) 752-7094.

Sincerely,

Paul D. Thompson
Environmental Specialist

PDT:KH:dep

xc: Site File
Chief Allan Woo, Napoleon Fire Dept.
Hans Schmalzried, RS, Ph.D.



3555557-00
CoCL

Campbell SOUP Company

NAPOLEON, OHIO 43545

July 25, 1995

Closure Review Board
Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
8895 East Main Street
P.O. Box 687
Reynoldsburg, OH 43068-0687

Dear Sir or Madam:

Enclosed you will find the closure documents for our underground storage tanks. Please feel free to contact me at 419-599-6794 if you have any questions or concerns.

Sincerely,

CAMPBELL SOUP COMPANY

Jon Scott
Environmental Engineer

Enclosures

CERTIFIED
P 922 034 035
MAIL

3550557-00
COCL

CLOSURE PLAN
FOR

CAMPBELL SOUP CO.

PREPARED BY

SCOTT FERRY

GREAT LAKES RESPONSE, INC.

LIVIO STIPCIC

PRESIDENT

- STATE FIRE MARSHAL OFFICE COPY
- CUSTOMER COPY
- OFFICE COPY

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CONFINED SPACE ENTRY (STANDARD OPERATING PROCEDURES),
CONFINED SPACE ENTRY PERMIT, COMBUSTIBLE GAS MONITOR
CALIBRATION LOG C

PHOTOIONIZATION D[illegible] CALIBRATION LOG ..... D

ANALYTICAL CHAIN [illegible]DY & ANALYTICAL REQUEST FORM ... E

LABORATORY ANAL[illegible]
LABORATORY AN[illegible]AVATION
LABORATORY ANALY[illegible]MPILED SOIL ..... F

BACKFILL REC[illegible] ..... G

CERTIFICATION OF TANK DECONTAMINATION AND DESTRUCTION ... H

ADDITIONAL [illegible]:
MAPPED LOCATION OF KNOWN PUBLIC WELLS, PRIVATE WELLS,
OR MONITORING WELLS ON FACILITY.
MAPPED LOCATIONS OF UST(S) RECENTLY OR HISTORICALLY
REMOVED, ABANDONED-IN-PLACE, OR HAVE UNDERGONE A
CHANGE IN SERVICE.
MAPPED LOCATIONS OF OTHER UST STILL IN SERVICE. I

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CLOSURE FORM (PART I)

CLOSURE CHECKLIST

12/21/94

OWNERSHIP OF TANKS	LOCATION OF TANKS
OWNER NO. 486 CAMPBELL SOUP CO. P.O. BOX 311 NAPOLEON, OHIO 43545 ATTN; DAVID FOLEY	INCIDENT NO. 3550557 FACILITY NO. 350059 CAMPBELL SOUP CO. EAST MAUMEE AVE. NAPOLEON, OHIO 43545

FILING INSTRUCTIONS

1. IN THE COLUMN ON THE LEFT SIDE OF THE FORM, PLACE EITHER THE PAGE NUMBER OR APPENDIX DESIGNATION WHERE EACH ITEM ON THE CHECKLIST CAN BE FOUND IN THE CLOSURE REPORT OR "N/A" (NOT APPLICABLE) FOR ITEMS THAT DO NOT APPLY TO YOUR CLOSURE REPORT.

2. UST OWNER MUST SIGN WHERE INDICATED AT THE END OF THIS FORM AND ATTACH IT TO THE CLOSURE REPORT. DEFICIENT CLOSURE REPORTS SUBMITTED TO OUR OFFICE WILL BE RETURNED TO THE UST OWNER FOR COMPLETION. SEND THE CLOSURE FORM AND THE CLOSURE REPORT TO THE ATTENTION OF THE "CLOSURE REVIEW SECTION".

NOTE: UST OWNER/OPERATORS SHALL SUBMIT ONE COPY OF THE WRITTEN CLOSURE REPORT WHICH SHALL BE RECEIVED BY THE STATE FIRE MARSHAL WITHIN 45 DAYS OF RECEIPT BY THE UST OWNER/OPERATOR OF SOIL AND/OR GROUND WATER LABORATORY ANALYSIS BUT NOT LATER THAN 90 DAYS FROM THE DATE OF COLLECTING SOIL AND/OR GROUND WATER SAMPLES.

I. UST SYSTEM OWNER, OPERATOR, AND FACILITY DATA

8 UST OWNER (NAME; ADDRESS; ZIP CODE; COUNTY; PHONE NO.)
8 UST OPERATOR (NAME; ADDRESS; ZIP CODE; COUNTY; PHONE NO.)
8 UST FACILITY LOCATION (NAME; ADDRESS; ZIP CODE; COUNTY; PHONE NO.)
8 UST FACILITY OWNER (NAME; ADDRESS; ZIP CODE; COUNTY; PHONE NO.)

II. UST SYSTEM DATA

16 DATE OF UST REMOVAL OR ABANDONMENT
11 UST SYSTEM AGE (YEARS)
11 UST CAPACITY (GALLONS)
11 UST SYSTEM CONSTRUCTION (E.G., STEEL, FIBERGLASS, ETC.)
8 DATE UST SYSTEM LAST USED
8 PERSON WHO LAST USED UST SYSTEM
11 SUBSTANCE STORED IN UST BOTH PAST AND PRESENT (E.G. GASOLINE, DIESEL FUEL, USED OIL, ETC.)
8 UST SYSTEM USE (E.G. RETAIL SALES, RESIDENTIAL, FARM, BUSINESS, ETC.)
8 UST SYSTEM STATUS (PERMANENTLY REMOVED, ABANDONED-IN-PLACE, CHANGE-IN-SERVICE, OR TEMPORARY CLOSURE BEYOND TWELVE MONTHS)

III. WASTE DISPOSAL DATA

34 DISPOSAL OF UST SYSTEM
12 DISPOSAL AND FINAL LOCATION OF ANY LIQUIDS FROM UST SYSTEM OR UST SYSTEM EXCAVATION

IV. SAMPLING DATA -
(GROUND WATER SAMPLING DATA ONLY REQUIRED IF GROUND WATER ENCOUNTERED DURING CLOSURE ACTIVITIES)

24 SOIL AND/OR GROUND WATER SAMPLE COLLECTION PROCEDURES
24 TYPE OF SAMPLE CONTAINERS AND SAMPLE PRESERVATION TECHNIQUES USED FOR SOIL AND/OR GROUND WATER SAMPLES
24 LABELING NUMBER OR DESIGNATION OF SOIL AND/OR GROUND WATER SAMPLE USED
24 TYPE OF SAMPLING EQUIPMENT USED (E.G. SPLIT SPOON, SHELBY TUBE, ETC.)
25 PROCEDURES USED FOR DECONTAMINATION OF SAMPLING EQUIPMENT
20 FIELD SCREENING METHODOLOGY USED FOR EACH SOIL AND/OR GROUND WATER SAMPLES OBTAINED
20 TYPE OF FIELD SCREENING INSTRUMENT USED
21 LISTING OF FIELD SCREENING READINGS FOR EACH SOIL AND/OR GROUND WATER SAMPLE OBTAINED
20 CALIBRATION DATE OF FIELD SCREENING INSTRUMENT
24 LOCATIONS AND DEPTHS OF ALL SOIL AND/OR GROUND WATER SAMPLES OBTAINED
E COPY OF CHAIN OF CUSTODY DOCUMENTATION FOR SOIL AND/OR GROUND WATER SAMPLES SUBMITTED TO LABORATORY
24 SAMPLE COLLECTOR NAME AND COMPANY AFFILIATION

V. LABORATORY DATA
(GROUND WATER LABORATORY DATA ONLY REQUIRED IF GROUND WATER ENCOUNTERED DURING CLOSURE ACTIVITIES)

F COPIES OF LABORATORY SAMPLE ANALYSIS DATA SHEETS FOR SOIL AND/OR GROUND WATER SAMPLES
33 DATE SOIL AND/OR GROUND WATER SAMPLES COLLECTED
33 DATE SOIL AND/OR GROUND WATER SAMPLES RECEIVED BY LABORATORY
33 DATE SOIL AND/OR GROUND WATER SAMPLES ANALYZED BY LABORATORY AND TYPE OF MATRIX ANALYZED (SOIL OR WATER)
33 NAME, ADDRESS, AND PHONE NUMBER OF LABORATORY AND NAME OF SAMPLE ANALYST
33 ANALYTICAL TEST METHODS USED FOR SOIL AND/OR GROUND WATER SAMPLES
33 DETECTION/QUANTITATION LIMITS USED FOR LABORATORY TEST METHODS
33 DATE OF LABORATORY INSTRUMENT CALIBRATION

VI. MISCELLANEOUS DATA

11 VISUAL SITE EVALUATION
9 SITE MAP ACCURATELY DEPICTING DIMENSIONS OF FACILITY PROPERTY BOUNDARIES, ABOVE GROUND STRUCTURES, ADJACENT STREET LOCATIONS, AND UST SYSTEMS (NUMBER OF TANKS AND PRODUCT LINES)
I MAPPED LOCATIONS OF KNOWN PRIVATE WELLS, PUBLIC WATER WELLS, OR MONITORING WELLS ON FACILITY
17 MAPPED LOCATIONS OF ANY UTILITIES EXPOSED DURING UST SYSTEM EXCAVATION
16 DESCRIPTION OF NATIVE SOILS ENCOUNTERED DURING UST SYSTEM EXCAVATION (E.G. SAND, GRAVEL, CLAY, ETC.)
26 MAPPED DEPTHS AND LOCATIONS OF ALL SOIL AND/OR GROUND WATER SAMPLES TAKEN FROM EXCAVATION
I MAPPED LOCATION OF UST RECENTLY OR HISTORICALLY REMOVED, ABANDONED-IN-PLACE, OR HAS UNDERGONE A CHANGE IN SERVICE, OR TEMPORARY CLOSURE BEYOND TWELVE MONTHS
I MAPPED LOCATIONS OF OTHER UST STILL IN SERVICE
19 MAPPED LENGTH OF UST AND PRODUCT LINE
18 MAPPED EXCAVATION LIMITS
8 CERTIFIED FIRE SAFETY INSPECTOR NAME AND CERTIFICATE NUMBER
8 LOCAL FIRE DEPARTMENT (NAME; ADDRESS; ZIP CODE; COUNTY; PHONE)
A COPY OF 30 DAY CLOSURE NOTIFICATION AND CLOSURE PERMIT

THE DEPARTMENT OF COMMERCE IS AN EQUAL OPPORTUNITY EMPLOYER & SERVICE PROVIDER

CLOSURE FORM (PART III)

SOIL DISPOSAL/TREATMENT CHECKLIST (FOR CLOSURES)

REFER TO SOIL STOCKPILE GUIDANCE DOCUMENT APPENDIX F (PAGES 50-56) BEFORE FILLING OUT THIS CHECKLIST.

PAGE NO.	
27	DATE STOCKPILE WAS GENERATED
27	DESCRIPTION AND PRESERVATION OF STOCKPILE (E.G. BERMED, COVERED, ETC.)
27	ESTIMATED STOCKPILE VOLUME IN CUBIC YARDS
20,24,E	SAMPLING AND FIELD SCREENING PROCEDURES, DATES, AND TIMES (I.E. CHAIN OF CUSTODY, ETC.)
38	LAB RESULTS IN TABLE FORMAT
F	LABORATORY DATA SHEETS
N/A	COPY OF THE SOIL REMEDIATION PLAN WHICH INCLUDES:
	1. A DESCRIPTION OF THE REMEDIATION TECHNIQUES
	2. COPIES OF ANY PERMITS REQUIRED FOR TREATMENT
	3. A COPY OF THE LOG KEPT ON SITE BY THE OWNER DURING STOCKPILE TREATMENT
35	FINAL DISPOSITION OF STOCKPILE OR OTHER DOCUMENTATION (RECEIPTS, MAPS, ETC.)

- CERTIFICATION STATEMENT -

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS FORM AND ALL ATTACHED DOCUMENTS, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE SUBMITTED INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

Jon Scott

OWNER/OPERATOR'S NAME (TYPED OR PRINTED)

Jon Scott

OWNER/OPERATOR SIGNATURE

7-25-95

DATE

2.0 Introduction

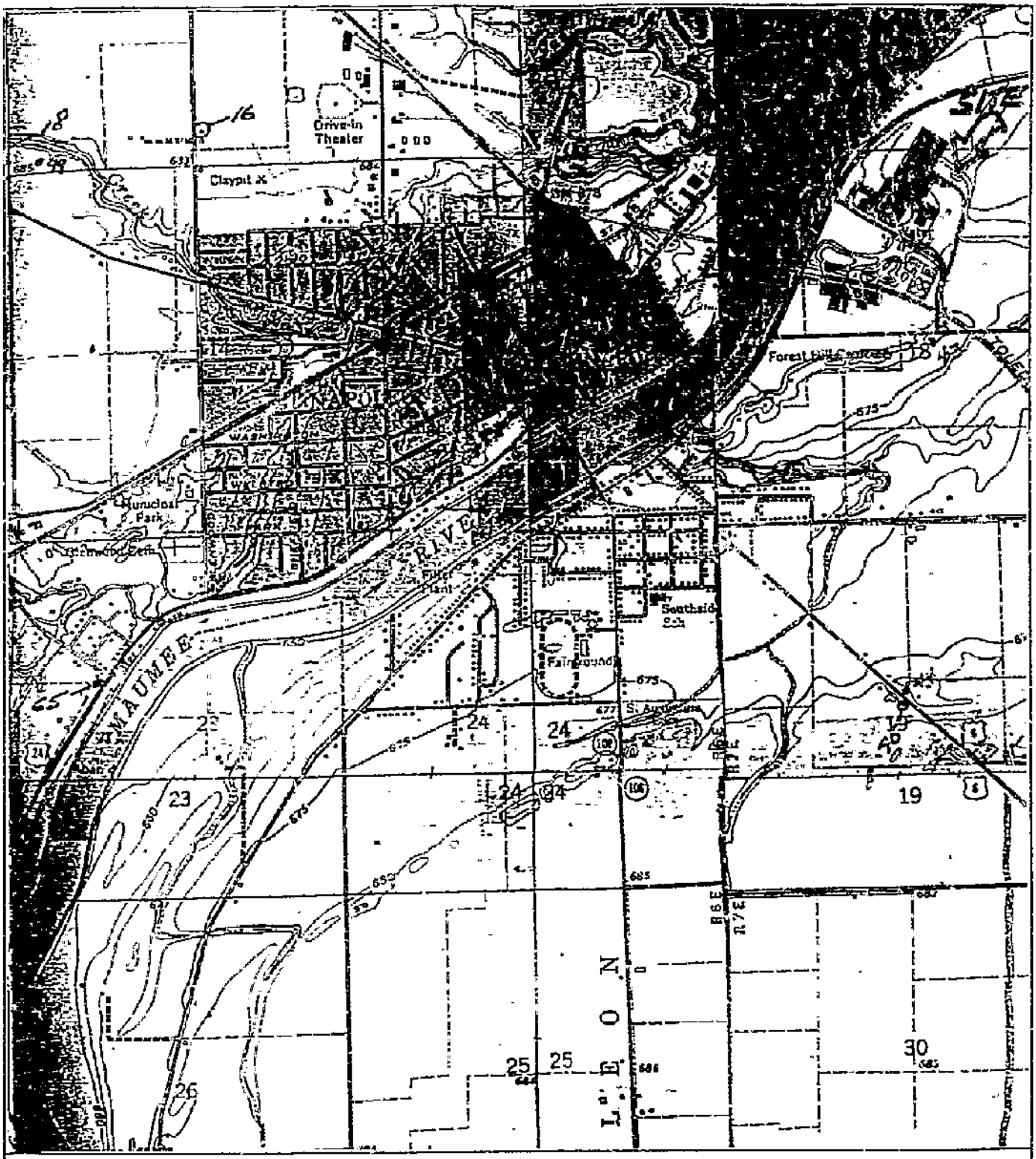
Great Lakes Response, Inc. (GLR) was contracted by Campbell Soup Co. to provide underground storage tank (UST) closure services. The current owner of the UST system is Campbell Soup Co. and can be contacted at East Maumee Ave. Napoleon, Ohio 43545 (419)599-6794. The current operator of the UST system is Campbell Soup Co. and can be contacted at East Maumee Ave. Napoleon, Ohio 43545 (419)599-6794. The UST system is located at Campbell Soup Co. East Maumee Ave. Napoleon, Ohio 43545 (419)599-6794 and this facility is currently owned by Campbell Soup Co. of East Maumee Ave., Napoleon, Ohio 43545 (419)599-6794. The UST system is currently not in use. The systems were last utilized as follows:

The Double Compartment 10,000 gallon tank last contained Heavy Naptha, Compartment A (5,000 gallon) Aliphatic Petroleum, Compartment B (5,000 gallon). The date last used was July 1994 by Campbell Soup Co. East Maumee Ave. Napoleon, Ohio 43545 (419)566-6794.

The Certified Fire Inspector on site during UST Removal and Closure Procedures was Larry Horstman, License #303. The local fire department with jurisdiction in the area of UST removal and permanent closure was Napoleon Fire Department 265 W. Riverview Ave., Napoleon, Ohio 43545 (419)592-0441.

The objective of this closure assessment is to provide documentation of the closure activities conducted at the site of the UST removal and to summarize the results of closure sampling and laboratory analysis performed. This report is prepared in accordance with the requirements of The Ohio Department of Commerce, Division of the State Fire Marshal, Bureau of Underground Storage Tank Regulations (BUSTR), dated after September 1, 1992.

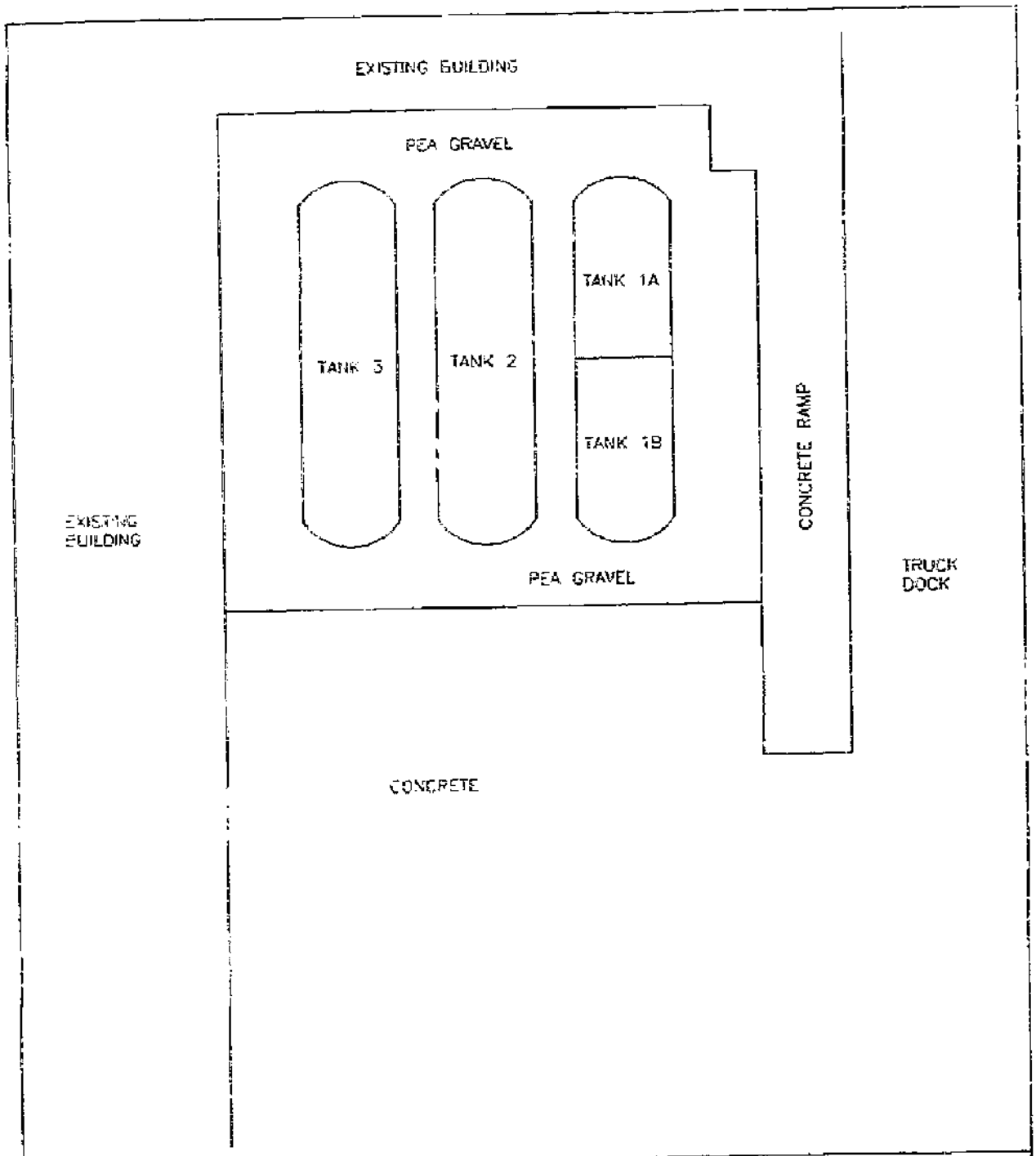
For site location map see figure 2.1. For a general site map see figure 2.2.



NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

2.1 SITE LOCATION MAP



NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

2.2 GENERAL SITE MAP

3.0 Visual Site Evaluation

On June 9, 1995, Scott Ferry of Great Lakes Response, Inc. performed a visual site evaluation of the areas surrounding the UST locations.

The visual inspection showed no signs of release on the surface area around the fill pipes or dispenser (see figure 2.2 for a general site map).

The following specifications apply to the UST system:

	Tank Capacity	Construction	Age	Product Present	Product Past
#1	Dual Compartment		<10 yrs.		
	10,000	Steel			
#A	5,000			Heavy Naptha	
#B	5,000			Aliphatic Petroleum	
#2	10,000	Double Wall	<10 yrs.	Aliphatic Hydrocarbons	
		Steel		Aromatic Hydrocarbons	
#3	10,000	Steel	<10 yrs.	Dimethylaminoethanol	

NOTE: Tanks #2 and #3 were non-regulated flow through process tanks per BUSTR Regulations 1301:7-9-02(16) and were removed at the same time. They are noted strictly for informational purposes.

4.0 Closure Activities

Closure activities performed at Campbell Soup Co. consisted of site scoring, product removal, tank excavation, nitrogen purging, cold cutting, tank decontamination, field screening, closure sampling, tank destruction, and closure reporting.

4.1 Product Removal

Great Lakes Response, Inc. removed 300 gallons of product from the UST system prior to nitrogen purging operations. Waste product removed from the tank was characterized, transported and disposed of in accordance with all local, state and federal regulations. For documentation pertaining to product disposal see appendix K.

4.2 Tank Excavation (Tank Exposure)

GLR personnel arrived on site, June 12, 1995, to begin excavation on the 10,000 tanks. Excavation was performed to expose the tank tops and associated piping. Product lines were disconnected and flushed into D.O.T. 17H Steel drums (see appendix A, for 30 day notification, UST removal permit and underground storage tank installer certificate).

4.3 Nitrogen Purging

To prepare for cold cutting, GLR personnel utilized nitrogen (N2) to inert the tanks interior through the following procedures:

A. Nitrogen was introduced through a single opening six inches from the tank bottom (opposite end from the vent riser). Nitrogen was dispersed at 5-7 psig to avoid generation of static electricity.

B. GLR personnel displaced 668 cubic feet of

nitrogen in the 5,000 gallon Heavy Naptha tank to achieve the following atmospheric readings:

% Oxygen - 20.8

% LEL - 0

Toxic Gas Alert - Fault

GLR personnel displaced 668 cubic feet of nitrogen in the 5,000 gallon Aliphatic Petroleum tank to achieve the following atmospheric readings:

% Oxygen - 20.9

% LEL - 0

Toxic Gas Alert - Fault

NOTE: The dynamation CGM gas detection instrument toxic alert channel was intentionally faulted to avoid sensor damage due to extreme N2 concentrations as per the manufacturers recommendation.

C. At this point the tank(s)were determined to be in satisfactory condition to begin the cold cutting procedure (refer to appendix B for a standard operating procedure for nitrogen purging).

4.4 Cold Cutting (Taken from GLR Standard Oper. Proc.)

Once the oxygen monitor indicates less than 8% oxygen, draw a minimum 22"x 22" square along the tanks centerline. The remainder of this procedure shall be performed only while air monitoring is being performed. Utilizing a pneumatic drill, drill two (1) inch holes on opposite corners of the 22" x 22" outline. During the drilling process, the hole saw blade should receive a continuous oil bath.

Note: Use chemical absorbents to collect any oil run off and avoid soil contamination. While continuing constant air monitoring, use a pneumatically driven reciprocating saw to slowly cut 90 degree angles, thus removing a 22"x 22" square. The saw blade should be constantly quenching in oil to avoid heat caused by

friction. Do not let the cut-out section of the tank drop into the tank, this would break the inert gas layer and create a possible spark.

To insure the tank interior is completely purged. use monitoring equipment to indicate oxygen concentration and L.E.L.

Note: Combustible gas indicator readings may be misleading where the tank atmosphere contains less than 5% oxygen by volume.

Note: Use the provided nitrogen purging chart as a reference. Always use proper monitoring equipment to insure complete purging.

All Great Lakes Response, Inc. personnel performing or assisting in the performance of nitrogen purging shall:

1. Have proper documented training on nitrogen purging.
2. Be familiar with the M.S.D.S. on Nitrogen.
3. Be familiar and signed off on the site specific health and safety plan for the job where nitrogen purging is to take place.

Note: Nitrogen purging will only be performed on a storage tank that has no manway and must be entered by Great Lakes Response, Inc. personnel.

Note: During the performance of nitrogen purging, all non-essential personnel and equipment will be restricted to areas beyond the contamination reduction zone.

Note: The atmosphere within the tank must be at 8% oxygen or less by volume before any cutting or drilling is performed.

4.5 Tank Cleaning

GLR performed tank decontamination in the following manner (in accordance with A.P.I. 2015):

A. The interior of both tanks were scraped, using non-sparking tools to remove all sludge and residue, then scrubbed with a bio-degradable non-hazardous degreaser.

B. The interiors were squeegeed clean, then rinsed with 2,000 p.s.i. cold water and drummed. This rinsing procedure was performed a total of three times. Atmospheric readings were taken with ventilation secured to ensure the tanks were completely cleaned. Internal tank readings were as follows:

1. 5,000 Tank - Oxygen 20.8 by volume
   L.E.L. 0 by volume
   Tox Alert 0 p.p.m.
2. 5,000 Tank - Oxygen 20.9% by volume
   L.E.L. 0% by volume
   Tox Alert 0 p.p.m.

See appendix C for the following: Confined Space Entry Standard Operation Procedures; Confined Space Entry permit; combustible gas monitor calibration log.

4.6 Tank Removal

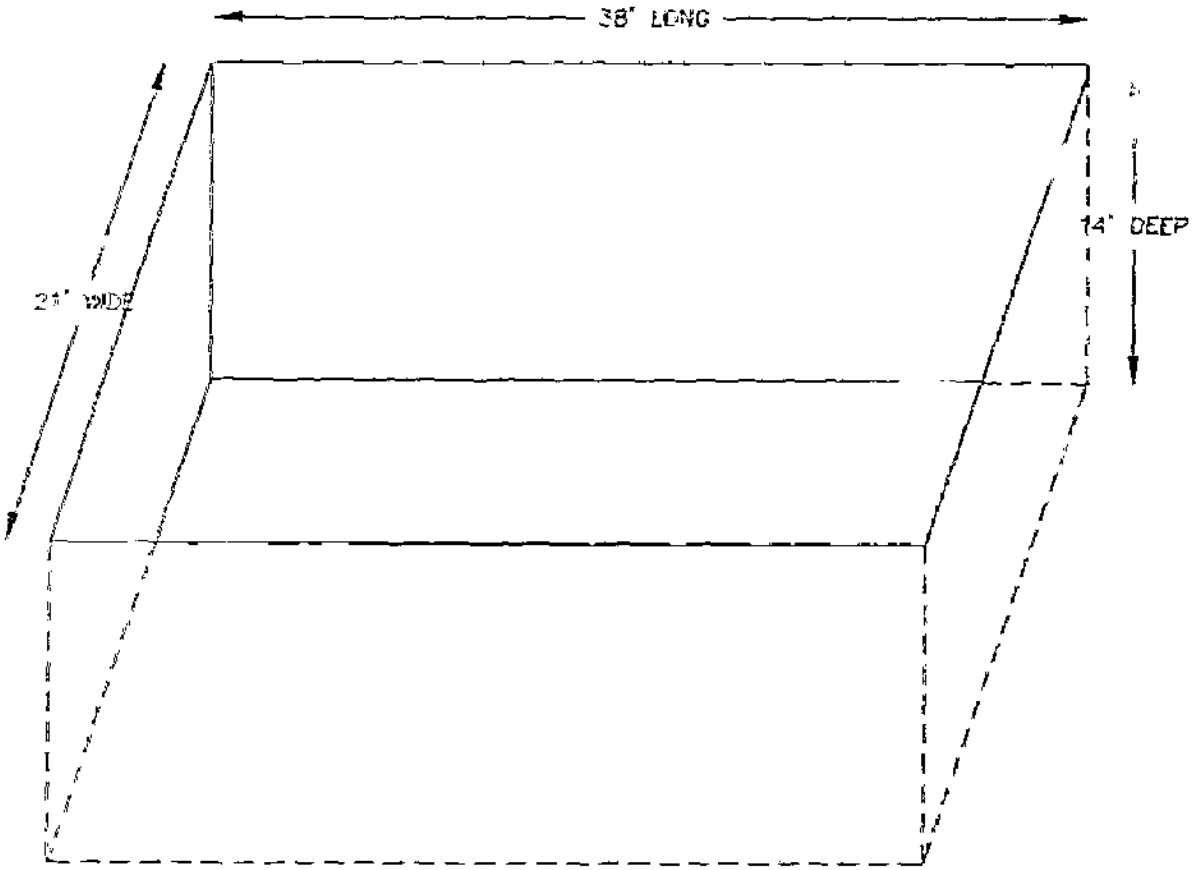
GLR personnel removed all UST(s) and associated piping on June 14, 1995. GLR personnel removed all fill material (not to exceed 1 foot beyond original tank excavation) and staged excavated fill on double layer 4 mil polyethylene sheeting in accordance with API 1604. Native soils encountered during UST excavation consisted of Sandy clay to shale. GLR personnel excavated and staged 400 cubic yards of original fill material. A mapped location of all utilities exposed during the UST excavation can be found in figure 4.1; a mapped location of UST excavation size(s) can be found in figure 4.2; and a mapped length and diameter of UST(s) and product lines can be found in figure 4.3.

NO UTILITIES EXPOSED

NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

4.1 UTILITIES EXPOSED DURING EXCAVATION



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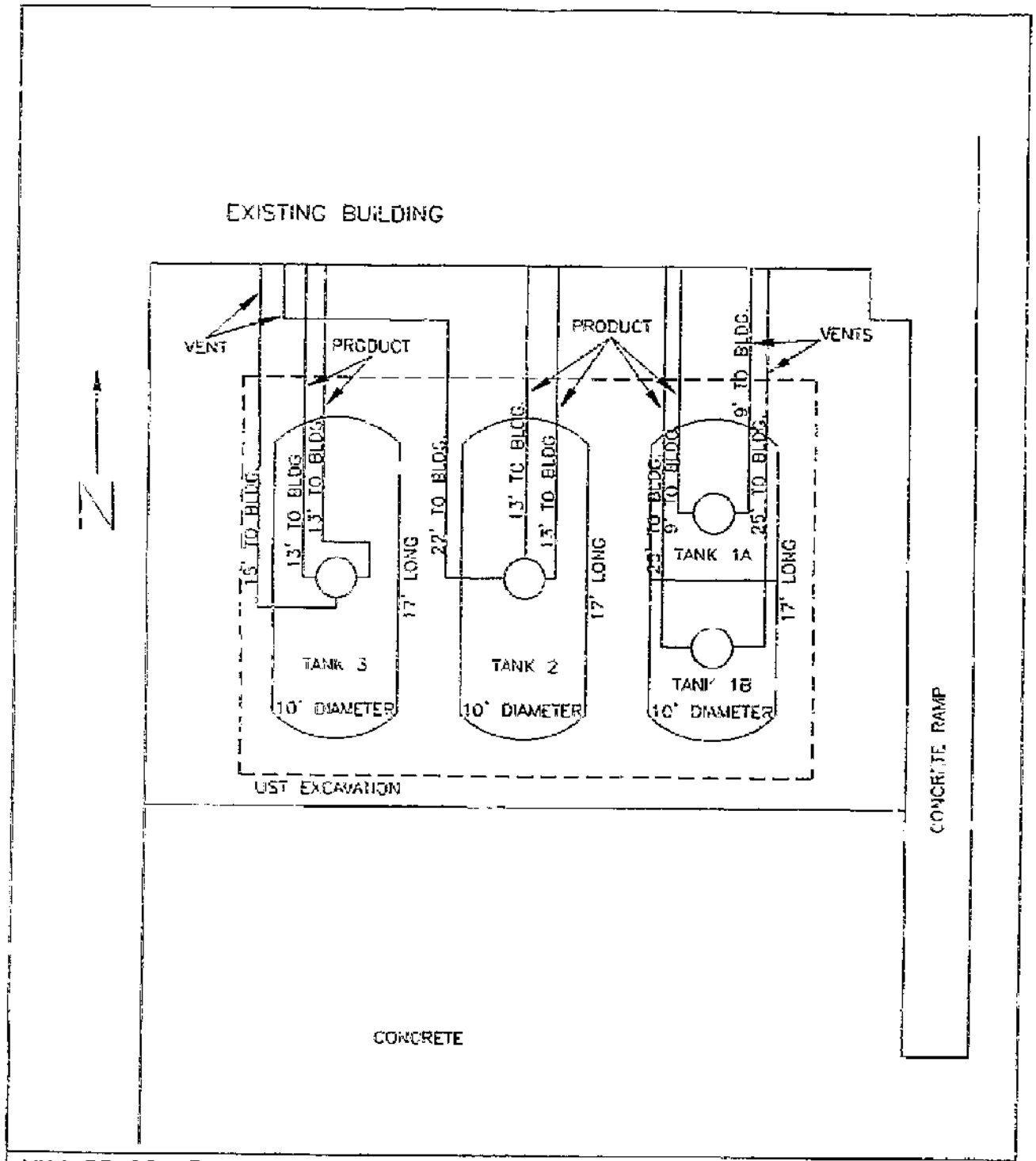
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

4.2 EXCAVATION SIZE



NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

4.3 UST & PIPING DIMENSIONS

5.0 Field Screening

Soil samples were field screened with a Photovac Micro-tip Photoionization Detector (PID) for the presence of volatile organic compounds (VOCs). In this test, a portion of each sample was placed into a clean, air tight glass jar. The mouth of each jar was covered with aluminum foil, and secured with a screw on lid. After at least ten minutes holding time, the head space above each sample was scanned for VOCs with the PID, by piercing the aluminum foil seal with the instrument probe and recording the maximum observed VOC reading.

The PID (Photo Vac Micro Tip II) was calibrated with 100 p.p.m. isobutylene in air commercial gas standard. Calibration and user techniques were in accordance with manufacturers instructions (see appendix D for the photovac calibration record and manufacturers recommended calibration procedures).

5.1 Field Screening Results

The soil samples for field screening were obtained from the excavation floor, under each tank end, from the excavation walls, from the product pipe run, and from under the dispensers. Refer to table 5.1 for sample results and figure 5.1 for field screening sample locations.

P.I.D. SAMPLE RESULTS - TABLE 5.1

VOLATILE ORGANIC COMPOUND SAMPLE RESULTS ASSOCIATED WITH FIGURE 5.1A			
NUMBER	LOCATION	PPM	DEPTH
FS-1	N/A	N/A	N/A
FS-2			
FS-3			
FS-4			
FS-5			
FS-6			
FS-7			
FS-8			
FS-9			
FS-10			

NOT APPLICABLE
WATER SAMPLE TAKEN

NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

5.1 FIELD SCREENING
SAMPLE LOCATIONS

5.2 Stockpile Soil Field Screening

An estimated 400 cubic yards of fill material was excavated and properly staged. Soil samples were retrieved from 10 locations of the stockpiled soil per the Ohio PCS policy dated September 1993. Field Screening procedures are consistent with Section 5.0

	Cubic yards of soil per stockpile				
	0-25	26-100	101-500	501-1000	>1000
Minimum # of grab samples to collect and field screen	2	6	8	10	10 plus 1 samples per additional 100 cubic yards (or fraction thereof)
Minimum # of grab samples to submit to the lab field screened	1	1	2	3	4 plus 1 sample per additional 500 cubic yards (or fraction thereof)

6.0 Soil Sampling

Soil sampling was performed in such a manner as to cause the least amount of soil disturbance in the area to be sampled. Four inches of soil was scraped off the sample area prior to the sample being retrieved through the use of a hand soil sample tube.

All sampling equipment was decontaminated between samples as described in section 6.3.

All samples were placed in clean, new containers with the Teflon lined lids. All sample jars were completely filled to avoid any head space.

Refer to Table in section 6.2 for sample locations and depths and Figure 6.1 for sample location mapping.

6.1 Sample Handling/Identification

All samples were immediately placed into an ice filled cooler (4 degrees c) for preservation. A chain-of- custody form was prepared to document sample identification and handling. A copy of the chain-of-custody is included in Appendix E.

Sampler's Name: Mike Cole

Title: Supervisor

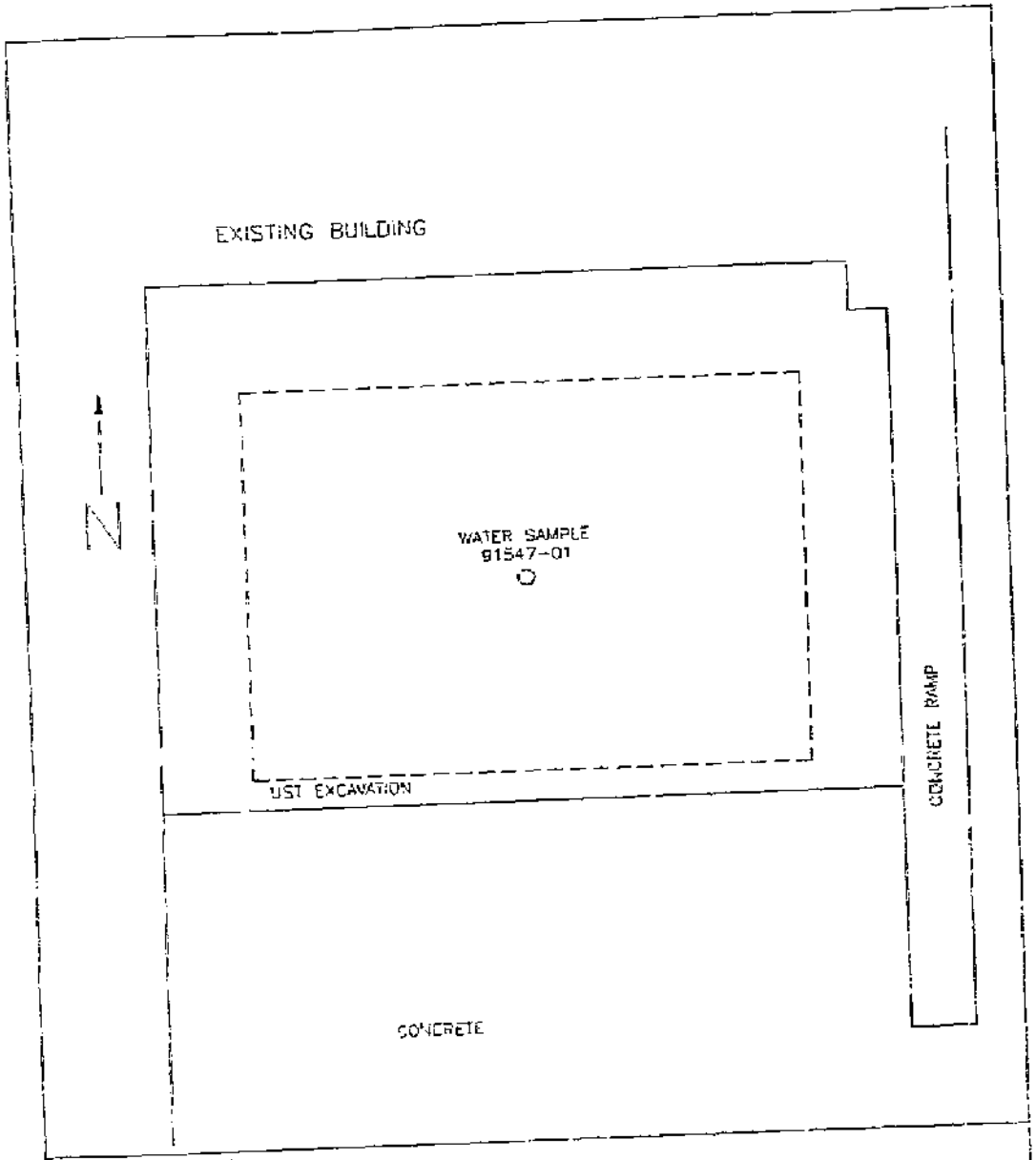
Employer: Great Lakes Response, Inc.

Date: June 14, 1995

	Sample ID	Sample Location	Depth
1.	91547-01	Water in tank excavation	15'
2.	LS SP-01	Stockpile	2'
3.	LS SP-02	Stockpile	2'

6.2 Decontamination

All sampling equipment was decontaminated between sample locations to reduce the possibility of cross contamination. The sampling spoon was decontaminated with a laboratory grade soap, rinsed with distilled water, and wiped dry between each use.



NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

6.1 SAMPLE LOCATIONS

7.0 Stockpiled Soil Sampling and Characterization

On June 14, 1995, Great Lakes Response, Inc., excavated and stockpiled 400 cubic yards of fill material in accordance with The Ohio Administrative Code 1301: 7-9-92 (I)(1)(e).

In accordance with The Ohio Department of Commerce Division of State Fire Marshal Bureau of Underground Storage Tank Stockpile Guidance Document dated 9/8/93, Great Lakes Response utilized the following method to calculate stockpile volume:

For an excavation of rectangular shape:

length x width x depth + volume of cavity

volume of cavity - total volume of all USTs = Total volume removed

Total volume removed x 1.5 = Total stockpile volume

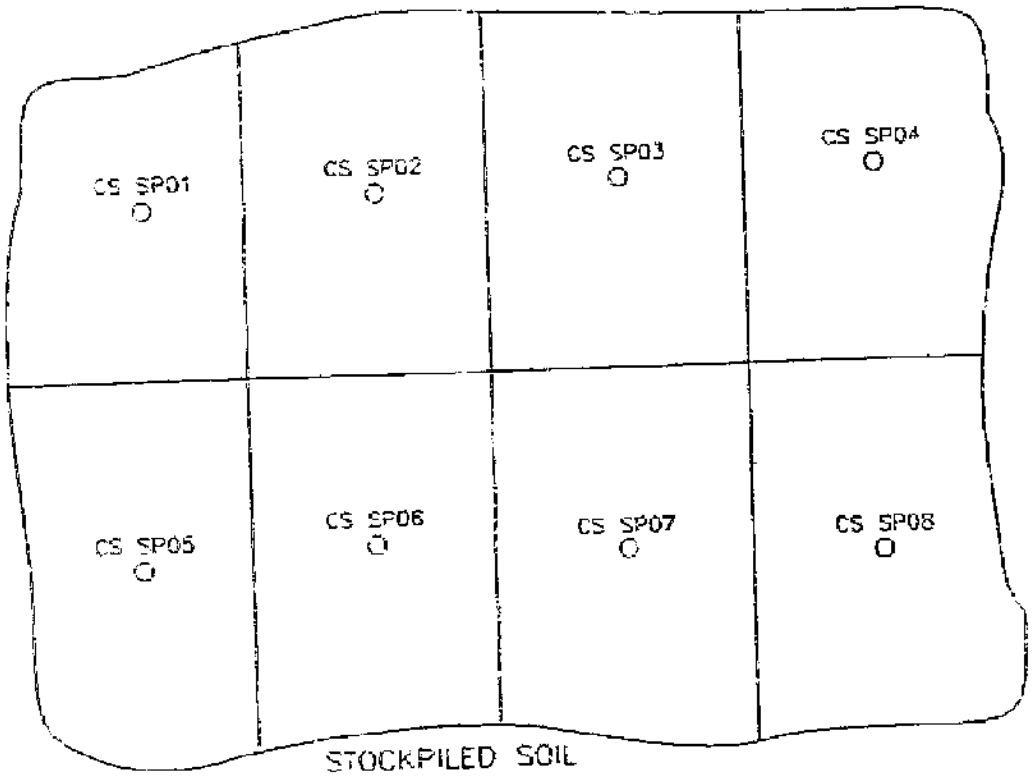
7.1 Stockpile Field Screening

After calculation of the volume of stockpiled soil was determined, the following table was utilized to determine the minimum number of grab samples collected for field screening and the minimum number of samples to be transported to a laboratory for the required analysis

Cubic yards of soil per stockpile 400 c.y.

	0-25	26-100	101-500	501-1000	1001-2000	>2000
Minimum # of grab samples to collect and field screen	2	6	8	10	13	13 plus 3 samples per add'l 500 c.y.
Minimum # of grab samples to submit to the lab	1	1	2	3	4	4 plus 1 sample per add'l 500 c.y.

NOTE: All sampling was performed as described in section 6.0



NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

7.1 FIELD-SCREENING SAMPLE LOCATIONS - STOCKPILE

TABLE 7.1 FIELD SCREENING RESULTS - STOCKPILE

VOLATILE ORGANIC COMPOUND SAMPLE RESULTS ASSOCIATED WITH FIGURE 7.1			
NUMBER	LOCATION	PPM	DEPTH
SP-01	See Map 5.1	103	2'
SP-02	See Map 5.1	86	2'
SP-03	See Map 5.1	42	2'
SP-04	See Map 5.1	28	2'
SP-05	See Map 5.1	31	2'
SP-06	See Map 5.1	0	2'
SP-07	See Map 5.1	0	2'
SP-08	See Map 5.1	11	2'

7.2 Stockpile Soil Sampling

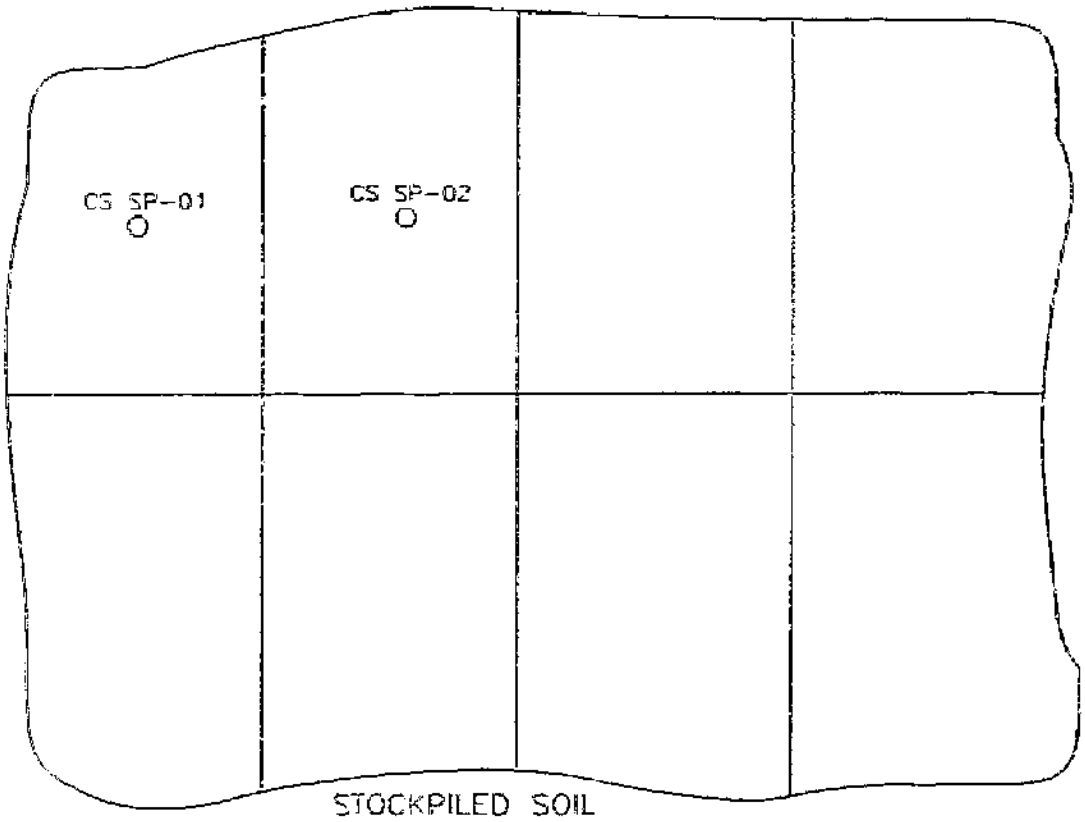
On June 14, 1995, Mike Cole of Great Lakes Response retrieved 3 soil samples for field screening. Of the 8 samples collected for field screening, 2 were transported for laboratory analysis.

NOTE: All sampling was performed in accordance with the SFM Corrected Action Guidance Document Section IV, Appendix A

NOTE: Field screening and sample handling procedures can be found in Section 5.0 and 6.2

For sample locations see Figure 7.2.

A copy of laboratory analysis can be found in appendixes F.



NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

7.2 STOCKPILED SOIL SAMPLE LOCATIONS

TABLE 7.2 - STOCKPILED SOIL ANALYTICAL RESULTS

ANALYTICAL DATA
FOR

CAMPBELL SOUP CO.

Sample	Media	Depth	Sampling Date	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylene (ppb)	Total Petroleum Hydrocarbons (ppm)
LS-SP-01	Pea Gravel	2'	6-14-95	<2.0	<2.0	<2.0	<2.0	<15
LS-SP-02	Pea Gravel	2'	6-14-95	<90	<90	<90	120	44

* = Exceeds the SFM site feature scoring system chart

Category 3

8.0 Laboratory Data

All analytical was performed by Electro Analytical Laboratories, Inc., 7118 Industrial Park Blvd., Mentor, Ohio 44060 (216)951-3514. Samples analyst was Tony Solitro.

8.1 Sample Analysis

All samples were collected on June 14, 1995 and transported to the laboratory in accordance with section 6.2 on June 15 and 16, 1995. Laboratory analysis was performed on June 16, 1995. The sample matrix was water and pea gravel. The following test method(s) was used to determine solid and liquid contamination concentrations:

Middle Distillates

A. Soil: BTEX (8020), PAHs (8100), TPH (418.1)

B. Water: BTEX (602), PAHs (610)

Detection Limits for the above stated analytical can be found on the hard copy analytical results sheet found in appendix F.

Laboratory instrument calibration can be found in appendix M.

9.0 Tank Destruction

On June 14, 1995, Great Lakes Response, Inc. did destroy the following tank(s):
(2)-10,000 and (1)-10,000 gallon Double Compartment steel was destroyed. The tanks were destroyed on site. The method of tank destruction was prepared for recycling.
Tank final disposal facility was N-R-G Recycling, 471 TR "R", Napoleon, Ohio 43545 (419) 599-1659.
Information retrieved from the tank identification plate was as follows:

I.D. Number: 152105
Capacity: 10,000
Manufacturer: ST1-P3
Other: _____ _____

Certificate of Decontamination and Destruction can be found in appendix H.

10.0 Remedial Option(s)

Great Lakes Response, Inc. reviewed with Jonathan Scott of Campbell's Soup Co. the following remedial options and their associated liabilities:

A. Landfilling
B. Thermo Destruction
C. Bio-Remediation
D. Aeration
E. Vapor Extraction

Of the above stated options, no further action was chosen due to tank excavation deemed clean through analytical, proper disposal of pea gravel stockpile recommended.

10.1 Stockpiled Soil (Disposal)

All Stockpiled pea gravel was sampled and characterized as described in section 7.0, 7.2 and Table 7.2.

All stockpiled soil was characterized with elevated levels of Polynuclear Hydrocarbons. Campbell Soup Company is awaiting a recommendation by the Ohio Department of Commerce, Division of State Fire Marshal Bureau of Underground Storage Tank Regulations, on how to properly handle stockpiled pea gravel.

11.0 SFM Site Feature Scoring System Checklist (SFSS)

The distance to the closest potable water supply source currently in use is >1,000 feet. This information was obtained from/by Ohio Department of Natural Resources.

The average depth to ground water in the surrounding areas in regards to the UST removal was 3' feet. This information was obtained from/by Ohio Department of Natural Resources.

The predominant soil type of substratum in the UST excavation and piping runs was as follows; sandy clay to shale.

This information was gathered through visual analysis.

The following natural and/or man made conduit/receptors near the UST and piping excavation are as follows: none.

For a copy of the SFM Site Feature Scoring System (SFSS) Checklist can be found in appendix L.

12.0 Remedial Recommendations

In accordance with OAC 1301:7-9-12(L)(2)(b)(vi) and SFM Site Feature Scoring System Chart, Great Lakes Response, Inc., recommends the following remedial actions:

No further action. Pea gravel stockpiled from tank excavation may require proper disposal for elevated levels of Polynuclear Hydrocarbons.

13.0 Soil and/or groundwater and analytical sample results from closure report are as follows:

TABLE 12.1 - ANALYTICAL DATA

ANALYTICAL DATA
FOR
Campbell Soup Co.

Sample	Media	Depth	Sampling Date	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylene (ppb)	Total Petroleum Hydrocarbons (ppm)
91547-1	Water	15	6/14/95	<2.0	<2.0	<2.0	<2.0	N/A

* = Exceeds the SFM site feature scoring system chart

Category ___

SSFS Action Levels (PPM)

Constituent	Category 1	Category 2	Category 3	Category 4
Total Score	< 31	31 - 50	51 - 70	>71
Soil BTEX	.006/4/6/28	.170/7/10/47	.335/9/14/67	.500/12/18/85
Groundwater BTEX	.005/1/.700/10	.005/1/.700/10	.005/1/700/10	.005/1/.700/10
Soil TPH (Gasoline)	105	300	450	600
Soil TPH (Others)	380	642	904	1156

This information is "PROPRIETARY AND CONFIDENTIAL"
and is the exclusive property of Great Lakes Response, Inc.
Campbell Soup Co.
This information shall not be copied or disseminated without its prior written consent. Great Lakes Response, Inc. assumes no responsibility or liability for the reliance hereon or use hereof by anyone other than the party to whom it is addressed.

Great Lakes Response, Incorporated

38316 Airport Parkway · Willoughby, Ohio 44094
(216) 953-0706 · FAX: (216) 942-7260

April 27, 1995

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
7510 East Main St.
P.O. Box 525
Reynoldsburg, Ohio 43068-3395

Attn: Release Prevention Manager

In accordance with underground storage tank closure assessment requirements. This letter is to notify the above addressed State Agency of intent to permanently close (3) 10,000 gallon underground storage tanks located at East Maumee Ave., Napoleon, Ohio.

Great Lakes Response, Inc. will be performing the underground storage tank closure in accordance with all Federal, State, and local Requirements.

Installer I.D. #10-90-0967
Scott A. Ferry

Great Lakes Response, Inc. will submit a State of Ohio Closure Plan upon completion of this project.

Scott Ferry
Field Superintendent

STATE OF OHIO
DEPARTMENT OF COMMERCE – DIVISION OF STATE FIRE MARSHAL
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
8895 EAST MAIN STREET, P.O. BOX 687
REYNOLDSBURG, OH 43068-0687

PERMIT FOR UNDERGROUND STORAGE TANKS

PERMIT NO.: 14069
ISSUE DATE: 5/11/95

I. OWNERSHIP OF TANKS	II. LOCATION OF TANKS
OWNER NO. 686 CAMPBELL SOUP.COMPANY PO BX 311 NAPOLEON, OH 43545 ATTN: DAVID FOLEY	INCIDENT NO. 3550557 FACILITY NO. 350059 CAMPBELL SOUP COMPANY PO BX 311 NAPOLEON, OH 43545
NOTE: AS A CONDITION OF THIS PERMIT, A BUSTE INSPECTOR MUST BE ON THE JOB SITE.	

III. CONTRACTOR	IV. LOCAL FIRE DEPARTMENT
GREAT LAKES RESPONSE	NAPOLEON FIRE DEPT

V. PERMIT ISSUED FOR:
SEE BELOW – (NOTE: OWNER'S COPY OF PERMIT MUST BE AVAILABLE ON JOB SITE)

VI. CONDITIONS (NOTE: PERMIT EXPIRES SIX (6) MONTHS FROM DATE OF ISSUE. FEE IS NON-REFUNDABLE)

REMOVALS/ABANDONMENTS:
[101] TANK(S): N/A [102] PIPING: N/A [103] TOTAL SYSTEMS: (3)

INSTALLATIONS:
[201] TANK(S): N/A [202] PIPING: N/A [203] TOTAL SYSTEMS: N/A

REPLACEMENT:
[301] TANK(S): N/A [302] PIPING: N/A [303] TOTAL SYSTEMS: N/A

REPAIRS:
[401] TANK(S): N/A [402] PIPING: N/A

UPGRADES:
[501] TANK(S): N/A [502] PIPING: N/A [503] TOTAL SYSTEMS: N/A

TEMPORARY CLOSURE:
[601] SYSTEMS: N/A

CHANGE IN SERVICE:
[701] SYSTEMS: N/A

DEPARTMENT OF COMMERCE • DIVISION OF STATE FIRE MARSHAL

BUREAU USE ONLY

CERTIFIED INSTALLER: [signature] ID NO.: 10-92-2151

INSPECTOR'S SIGNATURE: [signature] 903 DATE: 6-14-95

COM 5208 (08/92) FORMS DISTRIBUTION: WHITE COPY–TANK OWNER; CANARY AND PINK COPIES–BUREAU

NITROGEN PURGING

1.) THE FIRST STEP IN COLD CUTTING A TANK THAT CONTAINS A FLAMMABLE ATMOSPHERE IS NITROGEN PURGING.

NITROGEN SHOULD BE INTRODUCED THROUGH A SINGLE TANK OPENING AT A POINT NEAR THE BOTTOM OF THE TANK AT THE END OF THE TANK OPPOSITE THE V[illegible]T. WHEN NITROGEN IS USED IT SHOULD BE INTRODUCED UNDER [illegible]W PRESSURE TO AVOID THE GENERATION OF STATIC ELECTRICITY. A PRESSURE GAUGE SHOULD BE INSTALLED TO INSURE TANK PRESSURE DOES NOT EXCEED (5) PSIG. THE PROCESS OF INTRODUCING COMPRESSED GASES INTO A TANK MAY CREATE A POTENTIAL IGNITION HAZARD AS THE RESULT OF THE DEVELOPMENT OF STATIC ELECTRICAL CHARGES. UNDER NO CIRCUMSTANCES WILL A C02 FIRE EXTINGUISHER BE USED FOR INERTING FLAMMABLE ATMOSPHERES. TO PREVENT POSSIBLE STATIC IGNITIONS, THE NITROGEN REGULATOR MUST BE EQUIPPED WITH A GROUND STRAP. THE NITROGEN DISCHARGE HOSE MUST HAVE A PERMANENT GROUND WIRE RUNNING THE ENTIRE POSE LENGTH CONNECTED TO A SEPARATE GROUND STRAP.

TO INSURE THE TANK INTERIOR IS COMPLETELY PURGEL, USE MONITORING EQUIPMENT TO INDICATE OXYGEN CONCENTRATION AND L.E.L.

NOTE: COMBUSTIBLE GAS INDICATOR READINGS MAY BE MISLEADING WHERE THE TANK ATMOSPHERE CONTAINS LESS THAN 5% OXYGEN BY VOLUME.

NOTE: USE THE PROVIDED NITROGEN PURGING CHART AS A REFERENCE. ALWAYS USE PROPER MONITORING EQUIPMENT TO INSURE COMPLETE PURGING.

ONCE THE OXYGEN MONITOR INDICATES LESS THAN 8% OXYGEN, DRAW A 24 X 24 INCH SQUARE ALONG THE TANKS CENTERLINE. THE REMAINDER OF THIS PROCEDURE SHALL BE PERFORMED ONLY WHILE AIR MONITORING IS BEING PERFORMED. DRILL TWO - (1) INCH HOLES ON OPPOSITE CORNERS OF THE 24 X 24 INCH OUTLINE. DURING THE DRILLING PROCESS, THE HOLE SAW BLADE SHOULD RECEIVE A CONTINUOUS OIL BATH. NOTE: USE CHEMICAL ABSORBENTS TO COLLECT ANY OIL RUN-OFF AND AVOID SOIL CONTAMINATION. WHILE CONTINUING CONSTANT AIR MONITORING, USE A RECIPROCATING SAW TO SLOWLY CUT 90 DEGREE ANGLES, THUS REMOVING A 24" X 24" SQUARE. THE SAW BLADE SHOULD BE CONSTANTLY QUENCHED IN OIL TO AVOID HEAT CAUSED BY FRICTION. DO NOT LET THE CUT-OUT SECTION OF THE TANK DROP INTO THE TANK, THIS WOULD BREAK THE INERT GAS LAYER AND CREATE A POSSIBLE SPARK.

NITROGEN PURGIN

1. ALL GREAT LAKES RESPONSE PERSONNEL PERFORMING OR ASSISTING IN THE PERFORMANCE OF NITROGEN PURGING SHALL:

   A. HAVE PROPER DOCUMENTED TRAINING ON NITROGEN PURGING.

   B. BE FAMILIAR WITH THE M.S.D.S. ON N2

   C. BE FAMILIAR AND SIGNED OFF ON THE SITE SPECIFIC HEALTH AND SAFETY PLAN FOR THE JOB WHERE NITROGEN PURGING IS TO TAKE PLACE.

**NOTE: NITROGEN PURGING WILL ONLY BE PERFORMED ON A STORAGE TANK THAT HAS NO MANWAY AND MUST BE ENTERED BY GREAT LAKES RESPONSE PERSONNEL.

**NOTE: DURING THE PERFORMANCE OF NITROGEN PURGING, ALL NON-ESSENTIAL PERSONNEL AND EQUIPMENT WILL BE RESTRICTED TO AREAS BEYOND THE CONTAMINATION REDUCTION ZONE.

**NOTE: THE ATMOSPHERE WITHIN THE TANK MUST BE AT 8% OXYGEN OR LESS BY VOLUME BEFORE ANY CUTTING OR DRILLING IS PERFORMED.

Great Lakes Response, Incorporated

38316 Airport Parkway • Willoughby, Ohio 44094
(216) 953-0706 • FAX: (216) 942-7260

CONFINED SPACE ENTRY PERMIT

JOB # 91547 DATE 6-13-95

SITE LOCATION NAPOLEON, OHIO

PURPOSE OF ENTRY DECONTAMINATE AND CLEAN TAKS INTERIOR.

PERMIT EXPIRATION DATE 6-13-95 TIME 5:00PM

QUALIFIED PERSON MIKE COLE

ATMOSPHERIC TESTING

TESTING EQUIPMENT UTILIZED CUMBUSTIBLE GAS MONITOR AND DREAGER TUBE.

OXYGEN 20.9 %

COMBUSTIBLE VAPOR 0 % L.E.L.

CARBON MONOXIDE 0 % CO

TOXIC ALERT 1.5 # OF BARS

BENZENE 0 PPM

OTHER

TESTER MIKE COLE

TIME 8:05 DATE 6-13-95

SPACE INFORMATION

EQUIPMENT LOCKED OUT X

LINES REMOVED/BLANKED X

TYPE OF VENTILATION ESTABLISHED 2900 CFM JET COPUS BLOWER.

TIME

SAFETY EQUIPMENT UTILIZED

x TRIPOD
X RESCUE ROPE
x POLE WINCH
x SAFETY HARNESS
x S.A.R.
x S.C.B.A.
X RESCUE AIR & WRISTLETS
X FIRST AID KIT
x EYE WASH/NEUTRALIZER

PRE-ENTRY CHECKS

SAFETY MEETING: DATE 6-13-95 TIME 7:00AM

RESPIRATORY EQUIPMENT INSPECTED BY DAN STEWART

VENTILATION EQUIPMENT ERIC LAND

BACK-UP SAR READY X

BREATHING AIR CYLINDER 2150 MIKE COLE P.S.I.

WEATHER CONDITIONS SUNNY COOL 67°

HIP PACK STATUS FULL

MEN ENTERING TANK

NAME DAN STEWART DATE 6-13-95 TIME 8:15AM

NAME DATE TIME

NAME DATE TIME

NAME DATE TIME

ATTENDANT/SAFETY WATCH

NAME ERIC LAND DATE 6-13-95 TIME 8:15AM

NAME MIKE COLE DATE 6-13-95 TIME 8:15AM

NAME RICH SMITH DATE 6-13-95 TIME 8:15AM

NAME DATE TIME

I HAVE CHECKED THIS SPACE FOR PERSONAL ENTRY AND HAVE BRIEFED THE PERSONNEL ON THE WORK TO BE PERFORMED AND THE SAFETY EQUIPMENT TO BE UTILIZED

SUPERVISORS SIGNATURE

DATE 6-13-95 TIME 8:05AM

NOTE: THE GREAT LAKES RESPONSE STANDARD OPERATING PROCEDURE REQUIRED LEVEL B RESPIRATORY PROTECTION BE UTILIZED DURING ALL CONFINED SPACE ENTRIES.

Great Lakes Response, Incorporated

38316 Airport Parkway • Willoughby, Ohio 44094
(216) 953-0706 • FAX: (216) 942-7260

CONFINED SPACE ENTRY PERMIT

JOB # 91547 DATE 6-13-95

SITE LOCATION NAPOLEON , OHIO

PURPOSE OF ENTRY DECONTAMINATE AND CLEAN TANKS INTERIOR

PERMIT EXPIRATION DATE 6-13-95 TIME 7:00PM

QUALIFIED PERSON MIKE COLE - ERIC LAND

ATMOSPHERIC TESTING

TESTING EQUIPMENT UTILIZED GAS DETECTION MONITOR AND GASTECH

OXYGEN 20.9 %

COMBUSTIBLE VAPOR 0 % L.E.L.

CARBON MONOXIDE 0 % CO

TOXIC ALERT 2.5 # OF BARS

BENZENE 0 PPM

OTHER

TESTER MIKE COLE

TIME DATE 6-13-95

SPACE INFORMATION

EQUIPMENT LOCKED OUT X

LINES REMOVED/BLANKED X

TYPE OF VENTILATION ESTABLISHED 2900 CFM JET COPUS BLOWER

TIME

SAFSTY EQUIPMENT UTILIZED

X TRIPOD

X RESCUE ROPE

X POLE WINCH

X SAFETY HARNESS

X S.A.R.

X S.C.B.A.

X RESCUE AIR & WRISTLETS

X FIRST AID KIT

X EYE WASH/NEUTRALIZER

PRE-ENTRY CHECKS

SAFETY MEETING: . DATE 6-13-95 TIME 7:00 AM

RESPIRATORY EQUIPMENT INSPECTED BY ERIC LAND

VENTILATION EQUIPMENT MIKE COLE

BACK-UP SAR READY X

BREATHING AIR CYLINDER 2150 MIKE COLE P.S.I.

WEATHER CONDITIONS SUNNY 68°

HIP PACK STATUS FULL

MEN ENTERING TANK

NAME DAN STEWART DATE 6-13-95 TIME 9:35AM

NAME DATE TIME

NAME DATE TIME

NAME DATE TIME

ATTENDANT/SAFETY WATCH

NAME ERIC LAND DATE 6-13-95 TIME 9:35AM

NAME MIKE COLE DATE 6-13-95 TIME 9:35AM

NAME DATE TIME

NAME DATE TIME

I HAVE CHECKED THIS SPACE FOR PERSONAL ENTRY AND HAVE BRIEFED THE PERSONNEL ON THE WORK TO BE PERFORMED AND THE SAFETY EQUIPMENT TO BE UTILIZED

SUPERVISORS SIGNATURE

DATE 6-13-95 TIME 9:35AM

NOTE: THE GREAT LAKES RESPONSE STANDARD OPERATING PROCEDURE REQUIRED LEVEL B RESPIRATORY PROTECTION BE UTILIZED DURING ALL CONFINED SPACE ENTRIES.

CALIBRATION LOG

CGM GAS DETECTION INSTRUMENT

SERIAL NO. 2854

CALIBRATION GAS USED: TEST GAS 7800 - 011

CALIBRATION LOCATION: ON SITE

TIME: 1:35PM

DATE: 6-12-95

ADDITIONAL INFORMATION: PER MANUFACTURERS SPECIFICATIONS.

Φ Mike Cole

NAME

SUPERVISORS SIGNATURE

Great Lakes Response, Incorporated

Divisions: LAKELAND CONTRACTORS • LEAR CONSTRUCTION

38316 Airport Parkway • Willoughby, Ohio 44094

(216) 953-0706 • FAX: (216) 942-7260

CALIBRATION LOG

MICROTIP PHOTOIONATION DETECTOR

SERIAL NO. 5224

CALIBRATION GAS USED: TEST GAS 7800 - 015

CALIBRATION LOCATION: ON SITE

TIME: 1:30PM

DATE: 6-12-95

ADDITIONAL INFORMATION: PER MANUFACTURERS SPECIFICATIONS

Mike Cole

NAME

SUPERVISORS SIGNATURE

Great Lakes Response, Incorporated
38316 Airport Parkway • Willoughby, Ohio 44094
(216) 953-0706 • FAX: (216) 942-7260

CHAIN OF CUSTODY RECORD

PROJECT NAME	JOB NO.	NO. OF CONTAINERS	REMARKS
Campbell's Soup	91547		

SAMPLERS: (signature) [illegible]

STATION NO.	TIME	DATE	GRAB	COMP.	STATION LOCATION	NO. OF CONTAINERS	REMARKS
[illegible]		6/14/95	✓		T	[illegible]	[illegible] 1 Liter

RELINQUISHED BY: (signature)	DATE/TIME:	RECEIVED BY: (signature)	RECEIVED FOR LABORATORY BY: (signature)
[illegible]	[illegible]	[illegible]	
RELINQUISHED BY: (signature)	DATE/TIME:	RECEIVED BY: (signature)	DATE/TIME: [illegible]
[illegible]		[illegible]	
RELINQUISHED BY: (signature)	DATE/TIME:	RECEIVED BY: (signature)	REMARKS: [illegible]
RELINQUISHED BY: (signature)	DATE/TIME:	RECEIVED BY: (signature)	
RELINQUISHED BY: (signature)	DATE/TIME:	RECEIVED BY: (signature)	

ORIGINAL COPY — White DUPLICATE COPY — Canary

Great Lakes Response, Incorporated
38310 Airport Parkway • Willoughby, Ohio 44094
(216) 953-0700 • FAX (216) 942-7260

CHAIN OF CUSTODY RECORD

PROJECT NAME: Campbells Soup Co

JOB NO.: 91547

SAMPLERS (signature): Jim Stern

STATION NO.	TIME	DATE	GRAB	COMP.	STATION LOCATION	NO. OF CONTAINERS	REMARKS
CSSP-01	3:00PM	6/14/95	✓		Stock Pile	1	BETX 8020/ PAH 8100m/ TPH 418.1
CSSP-02	3:00PM	6/14/95	✓		" "	1	BETX 8020/ PAH 8100m/ TPH 418.1

RELINQUISHED BY: (signature)	DATE/TIME	RECEIVED BY: (signature)	RECEIVED FOR LABORATORY BY: (signature)
Jim Stern	6-16-95	[illegible] 6/16/95	
RELINQUISHED BY: (signature)	DATE/TIME	RECEIVED BY: (signature)	DATE/TIME
RELINQUISHED BY: (signature)	DATE/TIME	RECEIVED BY: (signature)	REMARKS: PLEASE RUSH THESE SAMPLES.
RELINQUISHED BY: (signature)	DATE/TIME	RECEIVED BY: (signature)	
RELINQUISHED BY: (signature)	DATE/TIME	RECEIVED BY: (signature)	

ORIGINAL COPY — White DUPLICATE COPY — Canary

Electro-Analytical Laboratories

7118 Industrial Park Blvd.
Mentor, OH 44060
Attn: Client Services Department
Phone: (216) 951-3514 [FAX 951-3774]

Great Lakes Response, Inc.
38316 Airport Parkway
Willoughby, OH 44094

Attn: Tamera Tuck

Order #: 95-06-306
Date: 06/16/95 15:17
Work ID: Campbells Soup 91547
Date Received: 06/15/95
Date Completed: 06/16/95

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	91547-01		

All samples were analyzed as received. Samples are retained for 30 days prior to disposal or return. Reproduction of this report is prohibited except in its entirety. Contact Client Services with questions regarding this report.

Certified By
Electro-Analytical Laboratories
Tony Solitro, QA/QC Mgr.

Order # 95-06-306
06/16/95 15:17

Electro-Analytical Laboratories

Work Id: Campbells Soup 91547

TEST RESULTS BY SAMPLE

Sample: 01A 91547-01 Collected: 06/14/95

Test Description	Result	Detection Limit	Units	Analyzed	By
P&T BTEX; Liquid: EPA 602					
Benzene	<2.0	2.0	ug/liter	06/15/95	LTS
Toluene	<2.0	2.0	ug/liter	06/15/95	LTS
Ethyl Benzene	<2.0	2.0	ug/liter	06/15/95	LTS
Total Xylenes	<2.0	2.0	ug/liter	06/15/95	LTS
Surrogates: Quality Control Data					
1-Chloro-2-Fluorobenzene	101	Min: 54		Max: 119	

Sample: 01B 91547-01 Collected: 06/14/95

Test Description	Result	Detection Limit	Units	Analyzed	By
Polynuc Aromatics: EPA 610					
Acenaphthene	<3.0	3.0	ug/liter	06/16/95	JAH
Acenaphthylene	<3.0	3.0	ug/liter	06/16/95	JAH
Anthracene	<3.0	3.0	ug/liter	06/16/95	JAH
Benzo[a]anthracene	<3.0	3.0	ug/liter	06/16/95	JAH
Benzo[a]pyrene	<3.0	3.0	ug/liter	06/16/95	JAH
Benzo[b]fluoranthene	<3.0	3.0	ug/liter	06/16/95	JAH
Benzo[k]fluoranthene	<3.0	3.0	ug/liter	06/16/95	JAH
Benzo[g,h,i]perylene	<3.0	3.0	ug/liter	06/16/95	JAH
Chrysene	<3.0	3.0	ug/liter	06/16/95	JAH
Dibenzo[a,h]anthracene	<3.0	3.0	ug/liter	06/16/95	JAH
Fluoranthene	<3.0	3.0	ug/liter	06/16/95	JAH
Fluorene	<3.0	3.0	ug/liter	06/16/95	JAH
Indeno[1,2,3-cd]pyrene	<3.0	3.0	ug/liter	06/16/95	JAH
Napthalene	12	3.0	ug/liter	06/16/95	JAH
Phenanthrene	<3.0	3.0	ug/liter	06/16/95	JAH
Pyrene	<3.0	3.0	ug/liter	06/16/95	JAH

Electro-Analytical Laboratories

7118 Industrial Park Blvd.
Mentor, OH 44060
Attn: Client Services Department
Phone: (216) 951-3514 [FAX 951-3774]

Great Lakes Response, Inc.
38316 Airport Parkway
Willoughby, OH 44094

Attn: Tamera Tuck

Order #: 95-06-326
Date: 06/16/95 16:32
Work ID: Campbells Soup Co. 91547
Date Received: 05/16/95
Date Completed: 06/16/95

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	CS SP-01	02	CS SP-02

All samples were analyzed as received. Samples are retained for 30 days prior to disposal or return. Reproduction of this report is prohibited except in its entirety. Contact Client Services with questions regarding this report.

Certified By
Electro-Analytical Laboratories
Tony Solitro, QA/QC Mgr.

Electro-Analytical Laboratories

Order # 95-06-326
06/16/95 16:32

Work Id: Campbells Soup Co. 91547

TEST RESULTS BY SAMPLE

Sample: 01A CS SP-01 Collected: 06/14/95 15:00

Test Description	Result	Detection Limit	Units	Analyzed	By
Moisture Cor . ASTM C 311	1.1	1.0	% Moisture	06/16/95	MJS
P&T BTEX; So. : SW846-8020					
Benzene	<2.0	2.0	ug/kg	06/16/95	REC
Toluene	<2.0	2.0	ug/kg	06/16/95	REC
Ethyl Benzene	<2.0	2.0	ug/kg	06/16/95	REC
Total Xylenes	<2.0	2.0	ug/kg	06/16/95	REC
Surrogates: Quality Control Data					
1-Chloro-2-Fluorobenzene	87.6	Min: 47		Max: 125	
Polynuc Aromat: SW846-8100					
Acenaphthene	<200	200	ug/kg	06/16/95	JAH
Acenaphthylene	<200	200	ug/kg	06/16/95	JAH
Anthracene	<200	200	ug/kg	06/16/95	JAH
Benzo[a]anthracene	670	200	ug/kg	06/16/95	JAH
Benzo[a]pyrene	520	200	ug/kg	06/16/95	JAH
Benzo[b]fluoranthene	1500	200	ug/kg	06/16/95	JAH
Benzo[k]fluoranthene	<200	200	ug/kg	06/16/95	JAH
Benzo[g,h,i]perylene	220	200	ug/kg	06/16/95	JAH
Chrysene	490	200	ug/kg	06/16/95	JAH
Dibenzo[a,h]anthracene	<200	200	ug/kg	06/16/95	JAH
Fluoranthene	940	200	ug/kg	06/16/95	JAH
Fluorene	<200	200	ug/kg	06/16/95	JAH
Indeno[1,2,3-cd]pyrene	620	200	ug/kg	06/16/95	JAH
Napthalene	<200	200	ug/kg	06/16/95	JAH
Phenanthrene	570	200	ug/kg	06/16/95	JAH
Pyrene	550	200	ug/kg	06/16/95	JAH
TPH;Soils:SW846-9071,418.1	<15	15	mg/kg	06/16/95	CEM

Sample: 02A CS SP-02 Collected: 06/14/95 15:00

Test Description	Result	Detection Limit	Units	Analyzed	By
Moisture Cont. ASTM C 311	1.9	1.0	% Moisture	06/16/95	MJS
P&T BTEX; Soil: SW846-8020					
Benzene	<90	90	ug/kg	06/16/95	REC
Toluene	<90	90	ug/kg	06/16/95	REC
Ethyl Benzene	<90	90	ug/kg	06/16/95	REC
Total Xylenes	120	90	ug/kg	06/16/95	REC

Electro-Analytical Laboratories

Order # S5-06-320
06/16/95 16:32

Work Id: Campbells Soup Co. 91547

Test Description	Result	Detection Limit	Units	Analyzed	By
Surrogates: Quality Control Data			Max: 125		
1-Chloro-2-Fluorobenzene	84.9	Mi			
Polynuc Aromat: SW846-8100					
Acenaphthene	1300	200	ug/kg	06/16/95	JAH
Acenaphthylene	<200	200	ug/kg	06/16/95	JAH
Anthracene	1400	200	ug/kg	06/16/95	JAH
Benzo[a]anthracene	2300	200	ug/kg	06/16/95	JAH
Benzo[a]pyrene	2300	200	ug/kg	06/16/95	JAH
Benzo[b]fluoranthene	4600	200	ug/kg	06/16/95	JAH
Benzo[k]fluoranthene	1100	200	ug/kg	06/16/95	JAH
Benzo[g,h,i]perylene	<200	200	ug/kg	06/16/95	JAH
Chrysene	2200	200	ug/kg	06/16/95	JAH
Dibenzo[a,h]anthracene	990	200	ug/kg	06/16/95	JAH
Fluoranthene	2800	200	ug/kg	06/16/95	JAH
Fluorene	2000	200	ug/kg	06/16/95	JAH
Indeno[1,2,3-cd]pyrene	3500	200	ug/kg	06/16/95	JAH
Napthalene	1400	200	ug/kg	06/16/95	JAH
Phenanthrene	5800	200	ug/kg	06/16/95	JAH
Pyrene	2700	200	ug/kg	06/16/95	JAH
TPH;Soils:SW846-9071,418.1	44	15	mg/kg	06/16/95	CEM

Great Lakes Response, Incorporated

38316 Airport Parkway · Willoughby, Ohio 44094
(216) 953-0706 · FAX: (216) 942-7260

PAGE ONE OF 7

FACSIMILE TRANSMISSION

TO: Campbell Disp FAX NO.: 419-599-6679

ATTN: Jon Scott DATE: 6/19/95

FROM: Tamra FAX NO.: (216) 942-7260

SUBJECT: Please forward Walmart Spm to Jim Stern

IF YOU HAVE ANY PROBLEMS RECEIVING THIS TRANSMISSION, PLEASE CALL _____ AT THE ABOVE PHONE NUMBER.



Think Spring !!!

TRANSMISSION RESULT REPORT (JUN 19 '95 04:03PM)

GREAT LAKES RESPONSE

(AUTO)

DATE	START TIME	REMOTE TERMINAL IDENTIFICATION	TIME	RESULTS	MODE	TOTAL PAGES	PERSONAL LABEL	FILE NO.
JUN 19	04:00PM	419 599 4450	02'18"	OK	ES	07		005

E)ECM *)REDUCTION S)STANDARD
D)DETAIL
F)FINE

M)MEMORY C)CONFIDENTIAL *)BATCH
T)TRANSFER
P)POLLING

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16432

DATE 06/19/95 | TIME 15:11 /0 | PURCHASE ORDER NO. 95-114 (NUMBER / NAME) | TICKET NO. 016432

061712
KINS TRUCKING INC.
BOX 25
OGEVILLE CORNERS OH 43555
19)-267-3696

PROJECT CODE 010069 TYPE 92-301 CATCH-ALL
MATERIAL 304 304.02

ON	95-114			TAX CODE 1	UNIT PRICE
S	58,920 /LB	QUANTITY ORDERED			NET PRICE
	24,400 /LB	QUANTITY DELIVERED	14,792.89		SALES TAX
	34.5[illegible] /LB	QUANTITY RECEIVED	.00		
ONS	17.2[illegible] /TN	QUANTITY REMAINING		TRUCK HAUL RATE	HAUL CHARGES
RECV Y	31[illegible]70	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO. 9999	GRAND TOTAL
O. Y	16	SIGNATURE			

COMMENTS: CATCH-ALL ORDER

The Aggregate Producer Will Not Be Responsible For Overloading
CUSTOMER DRIVER AGENT

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16433

DATE 06/19/95 | TIME 15:14 /0 | PURCHASE ORDER NO. 95-114 (NUMBER / NAME) | TICKET NO. 016433

MER 061712
KINS TRUCKING INC.
BOX 25
OGEVILLE CORNERS OH 43555
19)-267-3696

PROJECT CODE 010069 TYPE 92-301 CATCH-ALL
MATERIAL 304+ 304.02

ATION	95-114			TAX CODE 1	UNIT PRICE
NORS	70,400 /LB	QUANTITY ORDERED			NET PRICE
ARE	85,000 /LB	QUANTITY DELIVERED	110.62		SALES TAX
E	45,400 /LB	QUANTITY RECEIVED	.00		
S/TONS	38.70 /TN	QUANTITY REMAINING		TRUCK HAUL RATE	HAUL CHARGES
EL RECV. DDAY	110.62	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO. 5129	GRAND TOTAL
AD NO. DDAY	5	SIGNATURE			

COMMENTS: CATCH-ALL ORDER

The Aggregate Producer Will Not Be Responsible For Overloading

267.3.

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16427

ATE	06/19/95	TIME	14:18 /0	PURCHASE ORDER NO.	95-114	TICKET NO.	016427
MER	061712 KING TRUCKING INC. O BOX 25 GE VILLE CORNERS OH 43555 9)-267-3696			PROJECT	NUMBER 010069 NAME 92-301 CATCH-ALL		
				MATERIAL	CODE 304 TYPE 304.02		
ATION	95-114			TAX CODE	1	UNIT PRICE	
OSS	71.160 /LB	QUANTITY ORDERED				NET PRICE	
RE	25,000 /LB	QUANTITY DELIVERED	14.713.35			SALES TAX	
ET	46.160 /LB	QUANTITY RECEIVED	.00				
TONS	23.08 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
CV.	237.46	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO.	5129	GRAND TOTAL	
NO. AY	12	SIGNATURE					

The Aggregate Producer Will Not Be Responsible For Overloading

SUBMITTED
SIGNMASTER DRIVER AGENT

CATCH-ALL ORDER

285.15

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16428

TE	06/19/95	TIME	14:20 /0	PURCHASE ORDER NO.	95-114	TICKET NO	016428
ME	061712 ING TRUCKING INC. O BOX 25 GE VILLE CORNERS OH 43555 9)-267-3696			PROJECT	NUMBER 010069 NAME 92-301 CATCH-ALL		
				MATERIAL	CODE 304 TYPE 304.02		
TI	95-114			TAX CODE	1	UNIT PRICE	
SS	60,340 /LB	QUANTITY ORDERED				NET PRICE	
E	24,440 /LB	QUANTITY DELIVERED	14,731.30			SALES TAX	
T	35,900 /LB	QUANTITY RECEIVED	.00				
ONS	17.95 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
CV.	275.41	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO	9999	GRAND TOTAL	
NO. Y	12	SIGNATURE					

The Aggregate Producer Will Not Be Responsible For Overloading

CATCH-ALL ORDER

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16411

DATE	06/19/95	TIME	13:17 /D	PURCHASE ORDER NO.		TICKET NO.	016411

CUSTOMER 061712
VIKING TRUCKING INC.
P. O. BOX 25
EDGEVILLE CORNERS OH 43555
(419)-267-3696

PROJECT NUMBER 95-114 NAME
010069 92-301 CATCH-ALL
CODE TYPE
MATERIAL 304 304.02

LOCATION	95-114			TAX CODE	1	UNIT PRICE	
GROSS	58,500 /LB	QUANTITY ORDERED				NET PRICE	
TARE	24,440 /LB	QUANTITY DELIVERED	14,671.54			SALES TAX	
NET	34,060 /LB	QUANTITY RECEIVED	.00				
UNITS/TONS	17.03 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
QTY. DEL/RECV TODAY	195.65	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO	9999	GRAND TOTAL	
LOAD NO TODAY	10	SIGNATURE		COMMENTS	CATCH-ALL ORDER		

The Aggregate Producer Will Not Be Responsible For Overloading

DON NUTTER J. Rodriguez
WEIGHMASTER DRIVER AGENT

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16412

DATE	06/19/95	TIME	13:20 /D	PURCHASE ORDER NO.	95-114 NUMBER NAME	TICKET NO.	016412

CUSTOMER 061712
VIKING TRUCKING INC.
P. O. BOX 25
EDGEVILLE CORNERS OH 43555
(419)-267-3696

PROJECT
010069 92-301 CATCH-ALL
CODE TYPE
MATERIAL 304+ 304.02

LOCATION	95-114			TAX CODE	1	UNIT PRICE	
GROSS	76,000 /LB	QUANTITY ORDERED				NET PRICE	
TARE	25,000 /LB	QUANTITY DELIVERED	87.92			SALES TAX	
NET	51,000 /LB	QUANTITY RECEIVED	.00				
UNITS/TONS	25.50 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
QTY. DEL/RECV. TODAY	87.92	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO	5129	GRAND TOTAL	
LOAD NO. TODAY	4	SIGNATURE		COMMENTS	CATCH-ALL ORDER		

The Aggregate Producer Will Not Be Responsible For Overloading

DON NUTTER
WEIGHMASTER DRIVER AGENT

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16397

DATE	06/19/95	TIME	12:07 /D	PURCHASE ORDER NO. 95-114 (NUMBER / NAME)	TICKET NO. 016397

CUSTOMER 061712
VIKING TRUCKING INC.
P. O. BOX 25
RIDGEVILLE CORNERS OH 43555
(419)-267-3696

PROJECT (CODE / TYPE) 010069 92-301 CATCH-ALL
MATERIAL 304 304.02

LOCATION	95-114			TAX CODE 1	UNIT PRICE
GROSS	58,000 /LB	QUANTITY ORDERED			NET PRICE
TARE	24,440 /LB	QUANTITY DELIVERED	14,611.42		SALES TAX
NET	33,560 /LB	QUANTITY RECEIVED	.00		
UNITS/TONS	16.78 /TN	QUANTITY REMAINING		TRUCK HAUL RATE	HAUL CHARGES
QTY. DEL/RECV TODAY	135.53	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO. 9999	GRAND TOTAL
LOAD NO. TODAY	7	SIGNATURE			

COMMENTS: CATCH-ALL ORDER

The Aggregate Producer Will Not Be Responsible For Overloading.

DON HUTTER (WEIGHMASTER) _____ (DRIVER) _____ (AGENT)

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16399

DATE	06/19/95	TIME	12:28 /D	PURCHASE ORDER NO. 95-114 (NUMBER / NAME)	TICKET NO. 200

CUSTOMER 061712
VIKING TRUCKING INC.
P. O. BOX 25
RIDGEVILLE CORNERS OH 43555
(419)-267-3696

PROJECT (CODE / TYPE) 010069 301 CATCH-ALL
MATERIAL 304 304.02

LOCATION	95-114			TAX CODE 1	UNIT PRICE
GROSS	69,120 /LB	QUANTITY ORDERED			NET PRICE
TARE	25,000 /LB	QUANTITY DELIVERED	14,633.48		SALES TAX
NET	44,120 /LB	QUANTITY RECEIVED	.00		
UNITS/TONS	22.06 /TN	QUANTITY REMAINING		TRUCK HAUL RATE	HAUL CHARGES
QTY. DEL/RECV TODAY	157.59	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO 5129	GRAND TOTAL
LOAD NO. TODAY	8	SIGNATURE			

COMMENTS: CATCH-ALL ORDER

The Aggregate Producer Will Not Be Responsible For Overloading.

DON HUTTER (WEIGHMASTER) _____ (DRIVER) _____ (AGENT)

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16385

DATE	06/19/95	TIME	11:04 /O	PURCHASE ORDER NO. NUMBER	95-114 NAME	TICKET NO.	016385
CUSTOMER	061712			PROJECT CODE	010069 92-301 CATCH-ALL TYPE		
	VIKING TRUCKING INC.			MATERIAL	304 304.02		
	P.O. BOX 25						
	RIDGEVILLE CORNERS		OH 43555				
	(419)-267-3696						
LOCATION	95-114			TAX CODE	1	UNIT PRICE	
GROSS	57,900 /LB	QUANTITY ORDERED				NET PRICE	
TARE	24,440 /LB	QUANTITY DELIVERED	14,576.22			SALES TAX	
NET	33,460 /LB	QUANTITY RECEIVED	.00				
UNITS/TONS	16.73 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
QTY DEL/RECV. TODAY	100.33	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO.	9999	GRAND TOTAL	
LOAD NO. TODAY	5	SIGNATURE		COMMENTS	CATCH-ALL ORDER		

The Aggregate Producer Will Not Be Responsible For Overloading.

CONTRACTOR WEIGHMASTER DRIVER AGENT

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16391

DATE	06/19/95	TIME	11:37 /O	PURCHASE ORDER NO. NUMBER	95-114 NAME	TICKET NO.	016391
CUSTOMER	061712			PROJECT CODE	010069 92-301 CATCH-ALL TYPE		
	VIKING TRUCKING INC.			MATERIAL	304+ 304.02		
	P.O. BOX 25						
	RIDGEVILLE CORNERS		OH 43555				
	(419)-267-3696						
LOCATION	95-114			TAX CODE	1	UNIT PRICE	
GROSS	68,140 /LB	QUANTITY ORDERED				NET PRICE	
TARE	25,000 /LB	QUANTITY DELIVERED	62.42			SALES TAX	
NET	43,140 /LB	QUANTITY RECEIVED	.00				
UNITS/TONS	21.57 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
QTY DEL/RECV. TODAY	62.42	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO.	5129	GRAND TOTAL	
LOAD NO. TODAY	3	SIGNATURE		COMMENTS	CATCH-ALL ORDER		

The Aggregate Producer Will Not Be Responsible For Overloading

CONTRACTOR WEIGHMASTER DRIVER AGENT

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 569-2925
CUSTAR, OHIO 43511

No. 16373

06/19/95	TIME	9:56 /O	PURCHASE ORDER NO. 95-114 (NUMBER / NAME)	TICKET NO	016373

061712
G TRUCKING INC.
OX 25
LLE CORNERS OH 43555
-267-3696

PROJECT: 010069 92-301 CATCH-ALL (CODE / TYPE)
MATERIAL: 304 304.02

ON	95-114		TAX CODE	1	UNIT PRICE	
	57,520 /LB	QUANTITY ORDERED			NET PRICE	
	24,440 /LB	QUANTITY DELIVERED	14,559.49		SALES TAX	
	33,080 /LB	QUANTITY RECEIVED	.00			
NS	16.54 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
	83.6	The signature below certifies that this material meets the applicable contract specifications and requirements		TRUCK NO.	9999	GRAND TOTAL	
O.	4	SIGNATURE					

Aggregate Producer Will Not Be Responsible For Overloading.

WITNESSED BY / DRIVER / AGENT

COMMENTS: CATCH-ALL ORDER

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 569-2925
CUSTAR, OHIO 43511

No. 16377

06/19/95	TIME	10:33 /O	PURCHASE ORDER NO. 95-114 (NUMBER / NAME)	TICKET NO.	016377

061712
G TRUCKING INC.
OX 25
LLE CORNERS OH 43555
-267-3696

PROJECT: 010069 92-301 CATCH-ALL (CODE / TYPE)
MATERIAL: 304+ 304.02

N	95-114		TAX CODE	1	UNIT PRICE	
	70,360 /LB	QUANTITY ORDERED			NET PRICE	
	29,000 /LB	QUANTITY DELIVERED	40.85		SALES TAX	
	45,360 /LB	QUANTITY RECEIVED	.00			
US	22.68 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
EC	40.85	The signature below certifies that this material meets the applicable contract specifications and requirements.		TRUCK NO.	5129	GRAND TOTAL	
	2	SIGNATURE					

Aggregate Producer Will Not Be Responsible For Overloading

COMMENTS: CATCH-ALL ORDER

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

CARD 2

No. 16364

DATE	06/19/95	TIME	8:44 /O	PURCHASE ORDER NO.	95-114	TICKET NO.	016364

CUSTOMER 061712
JOING TRUCKING INC.
P.O. BOX 25
RIDGEVILLE CORNERS OH 43555
(419)-267-3696

PROJECT (NUMBER / NAME): 010069 92-301 CATCH-ALL

MATERIAL (CODE / TYPE): 304 304.02

LOCATION	95-114			TAX CODE	1	UNIT PRICE	
GROSS	71,900 /LB	QUANTITY ORDERED				NET PRICE	
TARE	25,000 /LB	QUANTITY DELIVERED	14,519.49			SALES TAX	
NET	46,900 /LB	QUANTITY RECEIVED	.00				
UNITS/TONS	23.45 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
DEL/RECV TODAY	43.60	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO.	5129	GRAND TOTAL	
LOAD NO. TODAY	2	SIGNATURE		COMMENTS	CATCH-ALL ORDER		

The Aggregate Producer Will Not Be Responsible For Overloading.

A. NUTTER
DISPATCHER DRIVER AGENT

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16371

DATE	06/19/95	TIME	9:37 /O	PURCHASE ORDER NO.	95-114	TICKET NO.	016371

CUSTOMER 061712
JOING TRUCKING INC.
P.O. BOX 25
RIDGEVILLE CORNERS OH 43555
(419)-267-3696

PROJECT (NUMBER / NAME): 010069 92-301 CATCH-ALL

MATERIAL (CODE / TYPE): 304 304.02

LOCATION	95-114			TAX CODE		UNIT PRICE	
GROSS	71,920 /LB	QUANTITY ORDERED				NET PRICE	
TARE	25,000 /LB	QUANTITY DELIVERED	14,542.95			SALES TAX	
NET	46,920 /LB	QUANTITY RECEIVED	.00				
UNITS/TONS	23.46 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
DEL/RECV TODAY	67.06	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO.	5129.	GRAND TOTAL	
LOAD NO. TODAY	3	SIGNATURE		COMMENTS	CATCH-ALL ORDER		

The Aggregate Producer Will Not Be Responsible For Overloading.

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16354

DATE	06/19/95	TIME	7:45 /D	PURCHASE ORDER NO.	95-114	TICKET NO.	016354

CUSTOMER 061712
VIKING TRUCKING INC.
P. O. BOX 25
RIDGEVILLE CORNERS OH 43555
(419)-267-3696

PROJECT (NUMBER / NAME) 010069 92-301 CATCH-ALL

MATERIAL (CODE / TYPE) 304 304.02

LOCATION	95-114			TAX CODE	1	UNIT PRICE	
GROSS	65,300 /LB	QUANTITY ORDERED				NET PRICE	
TARE	25,000 /LB	QUANTITY DELIVERED	14,496.04			SALES TAX	
NET	40,300 /LB	QUANTITY RECEIVED	.00				
UNITS/TONS	20.15 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
QTY DEL/RECV TODAY	20.15	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO.	5129	GRAND TOTAL	
LOAD NO. TODAY	1	SIGNATURE		COMMENTS	CATCH-ALL ORDER		

The Aggregate Producer Will Not Be Responsible For Overloading.
DAN NUTTER
WEIGHMASTER DRIVER AGENT

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16362

DATE	06/19/95	TIME	8:39 /D	PURCHASE ORDER NO.	95-114	TICKET NO.	016362

CUSTOMER 061712
VIKING TRUCKING INC.
P. O. BOX 25
RIDGEVILLE CORNERS OH 43555
(419)-267-3696

PROJECT (NUMBER / NAME) 010069 92-301 CATCH-ALL

MATERIAL (CODE / TYPE) 304 304.02

LOCATION	95-114			TAX CODE	1	UNIT PRICE	
GROSS	60,780 /LB	QUANTITY ORDERED				NET PRICE	
TARE	24,440 /LB	QUANTITY DELIVERED	18.17			SALES TAX	
NET	36,340 /LB	QUANTITY RECEIVED	.00				
UNITS/TONS	18.17 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
QTY DEL/RECV TODAY	18.17	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO.	9999	GRAND TOTAL	
LOAD NO. TODAY	1	SIGNATURE		COMMENTS	CATCH-ALL ORDER		

The Aggregate Producer Will Not Be Responsible For Overloading.
DAN NUTTER

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16478

	06/20/95	TIME	10:19 /O	PURCHASE ORDER NO. 95-114 (NUMBER / NAME)	TICKET NO. 016478

061712
G TRUCKING INC.
OX 25
VILLE CORNERS OH 43555
-267-3696

PROJECT 010069 92-301 CATCH-ALL
(CODE / TYPE)
MATERIAL 304 304.02

N	95-114			TAX CODE 1	UNIT PRICE
	54,520 /LB	QUANTITY ORDERED			NET PRICE
	21,820 /LB	QUANTITY DELIVERED	14,851.93		SALES TAX
	32,700 /LB	QUANTITY RECEIVED	.00		
S	16.35 /TN	QUANTITY REMAINING		TRUCK HAUL RATE	HAUL CHARGES
	35.75	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO. BT12	GRAND TOTAL
	2	SIGNATURE		COMMENTS	CATCH-ALL ORDER

Aggregate Producer Will Not Be Responsible For Overloading
UTTER
DRIVER AGENT

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16490

	06/20/95	TIME	11:24 /O	PURCHASE ORDER NO. 95-114 (NUMBER / NAME)	TICKET NO. 016490

061712
G TRUCKING INC.
OX 25
VILLE CORNERS OH 43555
-267-3696

PROJECT 010069 92-301 CATCH-ALL
(CODE / TYPE)
MATERIAL 304 304.02

ON	95-114			TAX CODE 1	UNIT PRICE
S	56,860 /LB	QUANTITY ORDERED			NET PRICE
	21,820 /LB	QUANTITY DELIVERED	14,869.45		SALES TAX
	35,040 /LB	QUANTITY RECEIVED	.00		
ONS	17.52 /TN	QUANTITY REMAINING		TRUCK HAUL RATE	HAUL CHARGES
	53.27	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO. BT12	GRAND TOTAL
O	3	SIGNATURE		COMMENTS	CATCH-ALL ORDER

e Aggregate Producer Will Not Be Responsible For Overloading.

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16503

	06/20/95	TIME	12:19 /D	PURCHASE ORDER NO.	95-114	TICKET NO.	016503

061712
TRUCKING INC.
BOX 25
GEVILLE CORNERS OH 43555
91-267-3696

PROJECT (NUMBER / NAME): 010069 92-301 CATCH-ALL
MATERIAL (CODE / TYPE): 304 304.02

	95-114			TAX CODE	1	UNIT PRICE	
	51,660 /LB	QUANTITY ORDERED				NET PRICE	
	21,820 /LB	QUANTITY DELIVERED	14,884.37			SALES TAX	
	29,840 /LB	QUANTITY RECEIVED	.00				
TONS	14.92 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
	68.19	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO.	8T12	GRAND TOTAL	
NO.	4	SIGNATURE					

The Aggregate Producer Will Not Be Responsible For Overloading

MIXER DRIVER AGENT

COMMENTS: CATCH-ALL ORDER

THE
CUSTAR STONE CO.
24920 PORTAGE ROAD (419) 669-2925
CUSTAR, OHIO 43511

No. 16523

	06/20/95	TIME	13:30 /D	PURCHASE ORDER NO.	95-114	TICKET NO.	016523

061712
TRUCKING INC.
BOX 25
EVILLE CORNERS OH 43555
-267-3696

PROJECT (NUMBER / NAME): 010069 92-301 CATCH-ALL
MATERIAL (CODE / TYPE): 304 304.02

	95-114			TAX CODE	1	UNIT PRICE	
	52,900 /LB	QUANTITY ORDERED				NET PRICE	
	21,820 /LB	QUANTITY DELIVERED	14,899.91			SALES TAX	
	31,080 /LB	QUANTITY RECEIVED	.00				
TONS	15.54 /TN	QUANTITY REMAINING		TRUCK HAUL RATE		HAUL CHARGES	
	83.73	The signature below certifies that this material meets the applicable contract, specifications and requirements.		TRUCK NO.	8T12	GRAND TOTAL	
NO.	5	SIGNATURE					

The Aggregate Producer Will Not Be Responsible For Overloading

COMMENTS: CATCH-ALL ORDER

NSE, INC.
38310 Airport Parkway • Willoughby, Ohio 44094
(216) 953-0706 • FAX: (216) 942-7260

CERTIFICATE OF DECONTAMINATION AND DESTRUCTION

Project Name: CAMPBELL SOUP

Date: 6-14-95

Address: PO BOX 311 NAPOLEON, OHIO 43545

Telephone No.: Job No.: 91547

1.) Tank Size: 10,000 GALLON

2.) Contents of Tank: A- HEAVY NAPTHA
B- ALIPHATIC PETROLEUM

3.) Method of Cleaning the Tank: SCRAP, SQUEEGE, DOUBEL WASH, TRIPPLE RINSE USING A NONHAZARDOUS BIODEGRADABEL DEGREASER

4.) Atmospheric Readings after Cleaning:
Oxygen: 20.9 % by Volume
Toxic: 2.5 P.P.M.
Combustible Vapor: 0 % L.E.L.
Tester: MIKE COLE Time: 2:00PM

5.) Method of Destruction: HAULLED AWAY

6.) Tank Disposal Location: NR RG RECYCLING INC
NAPOLEON, OHIO 43545

7.) Gallons Disposed of: N/A

8.) Contents Disposal Location: N/A

9.) Assigned GLR No(s).: 3 A & B

Professional Environmental Remediation Services

June 29, 1995

N&R&G RECYCLING, INC.
12-471 E. Twp. Rd.R
Napoleon, Ohio 43545
419-599-1659

Jon Scott
Campbell Soup Co.
Napoleon, Ohio 43545

To Whom It May Concern:

We at N&R&G Recycling, Inc. received from Campbell Soup Co the following materials: three 10,000 gallon storage tanks at the weight of 42,000 pounds. There is no value for this material per Jon Scott and George Nicely, President N&R&G. Faxed this day of June 29, 1995.

NO KNOWN WELLS

NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

APPENDIX I
MAPPED LOCATIONS
KNOWN WELLS

NO KNOWN REMAINING USTs

NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

APPENDIX I
MAPPED LOCATIONS
OF REMAINING USTs

TANKS Removed in 1991 PDT 8-4-95

NOT TO SCALE

CAMPBELL SOUP CO.
EAST MAUMEE AVENUE
NAPOLEON, OH
JUNE 15, 1995

APPENDIX I
LOCATIONS OF ABANDONED
OR REMOVED USTs

Great Lakes Response, Incorporated
38316 Airport Parkway · Willoughby, Ohio 44094
(216) 953-0706 · FAX: (216) 942-7260

SITE SPECIFIC HEALTH AND SAFETY PLAN

FOR

CAMPBELL SOUP

P.O. BOX 311

NAPOLEON, OHIO

PREPARED BY

SCOTT FERRY

GREAT LAKES RESPONSE, INC.

LIVIO STIPCIC

PRESIDENT

APPROVALS

I HAVE FAMILIARIZED MYSELF WITH THIS SITE SPECIFIC HEALTH AND SAFETY PLAN PERTAINING TO THE CAMPBELL SOUP SITE. I UNDERSTAND THE CONTENTS OF THIS SAFETY PLAN AND ANY QUESTIONS I HAVE REGARDING THE PLAN HAVE BEEN ANSWERED SATISFACTORILY.

NAME	EMPLOYER	DATE
Mike Golden	GLR.	6-12-95
Jim Stern	"	"
Rich Smith	"	"
Dan Baldwin	"	"
J. Bryant	"	"
Dan Stewart	"	"
[illegible]	"	"
Robert Merrifield	"	6-19-95
Tyrone Hatch	"	6-19-95

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INTRODUCTION/SITE DESCRIPTION/CHEMICAL IDENTIFICATION

THIS MANUAL DETAILS THE HEALTH AND SAFETY PLAN AND OPERATING PROCEDURES TO BE EMPLOYED AT:

CAMPBELL SOUP
P.O. BOX 311
NAPOLEON, OHIO

THIS DOCUMENT IS NOT INTENDED TO BE A COMPREHENSIVE TRAINING MANUAL OR TO DETAIL ALL PROCEDURES WHICH MAY BE UTILIZED ON SITE BUT IS INTENDED TO BE A GUIDANCE MANUAL FOR ROUTINE OPERATIONS AND A SOURCE OF GENERAL INFORMATION. DETAILED INFORMATION AND GUIDANCE ON MATERIALS NOT COVERED IN THIS PLAN WILL BE PROVIDED BY SUPPORT PERSONNEL BOTH ON AND OFF SITE AS NEEDED (SEE ORGANIZATION).

THE SITE OF THIS PROJECT: CAMPBELL SOUP
P.O. BOX 311
NAPOLEON, OHIO

DATE: BEGINNING JUNE 12, 1995

HAZARDS: HEAVY NAPTHA, ALIPHATIC PETROLEUM DISTILLATES, PAINT PRODUCT CONTAINS -DIMETHYLAMINDETHANOL, N-BUTYL ALCOHOL, BUTYL CARBITOL, BUTYL CELLOSOLVE, HI SOLIDS "C" ENAMEL CONTAINS- ALIPHATIC HYDROCARBON AND AROMATIC HYDROCARBON

AREA AFFECTED: FACILITY

SURROUNDING POPULATION: HEAVY INDUSTRIAL

TOPOGRAPHY: FLAT, SIMILAR TO SURROUNDING AREA'S.

CLIMATIC CONDITIONS: EARLY SUMMER, WARM TEMPERATURES, ANTICIPATED PRECIPITATION.

ADDITIONAL INFORMATION: COMPOUND NAME: HYDROTREATED HEAVY NAPTHA
BOILING POINT: 320°F
SPECIFIC GRAVITY: 3.79
VAPOR PRESSURE: 6mm @ 106°F
VAPOR DENSITY: 3.9
% VOLATILE: 100
LEL: 0.4
UEL: 5.0

COMPOUND NAME: ALIPHATIC PETROLEUM DISTILLATES
PEL: 500ppm
TLV: 100ppm
BOILING POINT: 300°F
VAPOR PRESSURE: 2 mmHg
FLASHPOINT: 100°F

COMPOUND NAME: PAINT PRODUCT: (CON
DIMETHYLAMINOETHANC JTYL
CELLOSOLVE, BUTYL CA L, BUTYL-
CELLOSOLVE)
BOILING POINT: 212°F
VAPOR PRESSURE: 24.0 mm @ 77
VAPOR DENSITY: 5.6
SPECIFIC GRAVITY: 1.00
H_2O SOLUBLE: YES
FLASHPOINT: 138°F
LEL: 1.0
UEL: 12,000

COMPOUND NAME: HI SOLIDS "C" ENAMEL: (CONTAINS:
ALIPHATIC HYDROCARBON, AROMATIC
HYDROCARBON)
LEL: 0.9
TLV: 267 ppm
% VOLATILE: 30
FLASHPOINT: 86°F

South East "tank

[redacted]

No Cert 7/99

APR 11 '95 12:53 FROM C S C ENG NAPOLEON TO 92169427250 PAGE.002

MATERIAL SAFETY DATA SHEET

THIS PRODUCT SAFETY INFORMATION IS PROVIDED PERIODICALLY TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH/SAFETY/ENVIRONMENTAL REGULATIONS. PLEASE FORWARD THIS TO YOUR MANAGER OF SAFETY AND HEALTH. THIS FORM REPLACES OUR PREVIOUS FORM DATED 04/22/83.

01074

SECTION 1 IDENTIFICATION

[illegible] MINERAL SPIRITS | SYNONYMS Hydro treated Heavy Naptha | REV. DATE 09/03

REGISTRY NO. 64742439 | CAS NAME [redacted]

HEN-TON, INC.
P.O. Box 187
Napoleon, OHIO, 43548

CHEMICAL FAMILY PETROLEUM HYDROCARBON

INFORMATION SUPPLIED BY AND PHONE PRESTON LILLEY (215) 447-1857

SECTION 2 INGREDIENTS

MATERIAL(S)
HYDROTREATED HEAVY NAPHTHA CONTAINING 17 TO 19 VOL.% AROMATICS.

SECTION 3 PHYSICAL DATA

BOILING POINT: 760 mm Hg 323 TO 523 °F. ____ °C	VAPOR PRESSURE: (mm Hg AT 20°C) 6 AT 106 F	pH INFORMATION: pH N/A - ____ pH	
BOILING POINT: N/A °F. ____ °C	VAPOR DENSITY: (AIR = 1) 3.9	OCTANOL/WATER PARTITION COEFFICIENT: ____	
SPECIFIC GRAVITY: (H_2O=1) 0.79	SOLUBILITY IN H_2O: (% BY VOL) NIL		
BOILING DENSITY: (WHEN APPLICABLE) Kg/m³ N/A	% VOLATILES BY VOL: 100	APPEARANCE AND ODOR: CLEAR LIQUID, FINER SPIRITS ODOR	
	EVAPORATION RATE: (ETHYL ETHER = 1) 1033% SLOWER	ODOR THRESHOLD (ppm) ____	

SECTION 4 FIRE AND EXPLOSION DATA (CONT. ON PAGE 2)

FLASH POINT: 135 MINIMUM TCC °F. ____ °C. AUTOIGNITION TEMPERATURE: 540 °F. ____ °C.

NFPA CLASSIFICATION	HAZARD RATING	FLAMMABLE LIMITS IN AIR
HEALTH 1 FIRE 2 REACTIVITY 3	LEAST 0 SLIGHT 1	LOWER EXPLOSIVE LEVEL (LEL) 0.8 % VO
SPECIFIC HAZARD ____	MODERATE 2 HIGH 3 EXTREME 4	UPPER EXPLOSIVE LEVEL (UEL) 5.7 % VO

FIRE AND EXPLOSION HAZARDS

[illegible]

CODE 090700

MATERIAL SAFETY DATA SHEET

EXTINGUISHING MEDIA	SPECIAL FIRE FIGHTING INSTRUCTIONS
~~ER FOG.~~ CHEMICAL FOAM, DRY CHEMICAL, CO2. Chemical Foam, CO2	WEAR SELF-CONTAINED BREATHING GEAR WHEN FIRE FIGHTING IN CONFINED SPACES.

SECTION 6 HEALTH HAZARD INFORMATION

EXPOSURE LIMITS

N. TIME WEIGHTED PERMISSIBLE EXPOSURE 100 PPM. ~~SUB-RECOMMENDATION.~~ Time Weighted Permissible

ROUTES OF EXPOSURE AND EFFECTS

ATION Inhalation

STATING TO MUCOUS MEMBRANES, RESPIRATORY TRACT.

Irritating to Mucous Membranes

Practically nontoxic by

CTICALLY NON-TOXIC BY SKIN ABSORPTION. MODERATE IRRITATION WITH PROLONGED OR REPEATED CONTACT. DEFATS T N.

ERATE IRRITATION.

ATION

EXATELY TOXIC, PULMONARY ASPIRATION HAZARD IF SWALLOWED AND VOMITING OCCURS. ORAL LD50 IS ESTIMATED TO WEEN 3.5 AND 5.0 GRAMS PER KILOGRAM OF BODY WEIGHT

FIRST AID

LATION REMOVE VICTIM TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, OBTAIN PHYSICIAN.

Inhalation

H WITH SOAP AND WATER. WASH CLOTHING BEFORE REUSE.

CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF REDNESS OR ITATION PERSISTS, SEEK MEDICAL HELP.

STION Ingestion

SWALLOWED. DO NOT INDUCE VOMITING. OBTAIN PHYSICIAN IMMEDIATELY. DO NOT GIVE LIQUIDS. SMALL AMOUNTS WHIC ACCIDENTALLY ENTER THE MOUTH SHOULD BE RINSED OUT UNTIL NO TASTE OF THIS PRODUCT REMAINS.

CTION 6 REACTIVITY DATA (CONT. ON PAGE 3)

STABILITY	INCOMPATIBLE MATERIALS	HAZARDOUS DECOMPOSITION PRODUCTS
BLE Stable	INCOMPATIBLE WITH STRONG OXIDIZERS	CARBON MONOXIDE AND ASPHYXIANTS

MATERIAL SAFETY DATA SHEET

PAGE 3

MATERIAL "IL" BY SCOTT.

CODE

WARNING!

PRODUCT IDENTIFICATION

PRODUCT NAME

MANUFACTURER'S NAME, ADDRESS, PHONE & EMERGENCY PHONE

PLEASE USE ADDITIONAL SHEETS IF NECESSARY

INGREDIENTS

PLEASE PROVIDE CHEMICAL NAMES, CAS #'S, PERCENTAGES, OSHA PEL, ACGIH TLV, AND OTHER RECOMMENDED LIMITS.

PHYSICAL DATA

BOILING POINT (°F)

VAPOR PRESSURE (mm Hg)

VAPOR DENSITY (AIR=1)

SPECIFIC GRAVITY (H2O=1)

SOLUBILITY IN WATER

APPEARANCE AND ODOR

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED)

FLAMMABLE LIMITS

EXTINGUISHING MEDIA

SPECIAL FIRE FIGHTING PROCEDURES

UNUSUAL FIRE AND EXPLOSION HAZARDS

REACTIVITY DATA

STABILITY

CONDITIONS TO AVOID

INCOMPATIBILITY (MATERIALS TO AVOID)

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

HAZARDOUS POLYMERIZATION

CONDITIONS TO AVOID

HEALTH HAZARD DATA

ROUTES OF ENTRY

INHALATION

SKIN

INGESTION

EFFECTS OF OVEREXPOSURE

EMERGENCY AND FIRST AID PROCEDURES

PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

WASTE DISPOSAL METHOD

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE)

VENTILATION

LOCAL EXHAUST

MECHANICAL (GENERAL)

SPECIAL

OTHER

PROTECTIVE GLOVES

EYE PROTECTION

OTHER PROTECTIVE EQUIPMENT

SPECIAL PRECAUTIONS

OTHER PRECAUTIONS

TRANSPORTATION DATA

SHIPPING NAME

HAZARD CLASS

UN/NA NUMBER

PACKING GROUP

LABEL REQUIRED

REGULATORY DATA

"THIS PRODUCT IS CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS."

"WHMIS CLASSIFICATION: CLASS D, DIVISION 2, SUBDIVISION B"

"WHMIS LABELLING: DO NOT INDUCE VOMITING. CAUSES IRRITATION TO EYES, SKIN, AND RESPIRATORY TRACT. HARMFUL OR FATAL IF SWALLOWED. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. AVOID BREATHING VAPOR OR MIST. KEEP CONTAINER CLOSED. USE ONLY WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. IF SWALLOWED, DO NOT INDUCE VOMITING. CALL PHYSICIAN IMMEDIATELY. IF SWALLOWED, DRINK LARGE QUANTITIES OF WATER AND CALL PHYSICIAN IMMEDIATELY. IF IN EYES, FLUSH WITH WATER FOR 15 MINUTES. IF ON SKIN, WASH WITH SOAP AND WATER. IF INHALED, REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. SEEK MEDICAL ATTENTION."

"WASTE DISPOSAL: DISPOSE OF CHEMICAL WASTE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS."

"SPILL AND LEAK PROCEDURES: ABSORB WITH INERT MATERIAL (SAND, VERMICULITE). SWEEP UP AND PLACE IN CONTAINER FOR DISPOSAL. AVOID CONTACT WITH SKIN AND EYES. WEAR PROTECTIVE EQUIPMENT."

"PROTECTIVE EQUIPMENT: USE IN WELL VENTILATED AREA. WEAR CHEMICAL GOGGLES. WEAR RUBBER GLOVES. WEAR RESPIRATOR IF EXPOSURE LIMIT IS EXCEEDED."

"OTHER PRECAUTIONS: KEEP AWAY FROM HEAT AND OPEN FLAME. VAPOR MAY ACCUMULATE IN CONFINED SPACES."

"TRANSPORTATION: CLASS 3, PG II"

"REGULATORY: CONTAINS BENZENE, TOLUENE, XYLENE, ETHYL BENZENE, AND NAPHTHA."

"North East" Ohio

DIVISION OF ASHLAND OIL, INC.
P. O. BOX 391, COLUMBUS, OHIO 43216 • (614) 889-3333
24-HOUR EMERGENCY TELEPHONE (606) 324-1133

MATERIAL SAFETY DATA SHEET

Ashland

501907 [redacted] S-THINNER PAGE: 1

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

PRODUCT NAME: S THINNER
CAS NUMBER: MIXTURE

CARPELL SOUP
P.O. BOX 311
NAPOLEAN OH 43545

SS ID: 521 1779600-
DATA SHEET NO: 8000591-803
LATEST REVISION DATE: 03/24-880033
PRODUCT: 2513000
INVOICE: 5447303
INVOICE DATE: 09/23/86
TO: CAMPBELL SOUP CO.
3500 WEST 35TH ST.
CHICAGO IL 60632

ATTN: PLANT MGR./SAFETY DIR.

SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: ALIPHATIC HYDROCARBON

DOT HAZARD CLASSIFICATION: COMBUSTIBLE (173.115)

SECTION II-COMPONENTS

INGREDIENT	% (BY WT)	PEL	TLV	NOTE
ALIPHATIC PETROLEUM DISTILLATES	100	500	100 PPM	(1)

(1): NIOSH RECOMMENDS A LIMIT OF 350 MG/CUM - 8 HOUR TIME WEIGHTED AVERAGE, 1800 MG/CUM AS DETERMINED BY A 15 MINUTE SAMPLE.

SECTION III-PHYSICAL DATA

PROPERTY	REFINEMENT	MEASUREMENT
BOILING POINT	FOR PRODUCT	302.00 DEG F
		(150.00 DEG C)
VAPOR PRESSURE	FOR PRODUCT	@ 760.00 MMHG
		2.00 MMHG
SPECIFIC VAPOR DENSITY	AIR = 1	@ 65.00 DEG F
		(25.00 DEG C)
SPECIFIC GRAVITY		0.8
		.770
PERCENT VOLATILES		@ 60.00 DEG F
		(15.55 DEG C)
EVAPORATION RATE	(ETHER = 1)	128.00%
		70.00

SECTION IV-FIRE AND EXPLOSION INFORMATION

FLASH POINT: 100.00 DEG F (37.77 DEG C)

EXPLOSIVE LIMIT (PRODUCT): LOWER - 0.8%

EXTINGUISHING MEDIA: REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS(), CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE WHEN FIGHTING FIRES.

SPECIAL FIRE & EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

NFPA CODES: HEALTH- 0 FLAMMABILITY- 3 REACTIVITY- 0

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: 500 PPM

THRESHOLD LIMIT VALUE: 100 PPM

EFFECTS OF ACUTE OVEREXPOSURE: FOR PRODUCT

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION, DEFATTING, DERMATITIS.
BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, POSSIBLE UNCONSCIOUSNESS, AND EVEN ASPHYXIATION.
SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA. ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

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CONTINUED ON PAGE: 2

DIVISION OF ASHLAND OIL, INC.
P.O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333

MATERIAL SAFETY DATA SHEET

24-HOUR EMERGENCY TELEPHONE (800) 325-1133

SECTION V-HEALTH HAZARD DATA (CONTINUED)

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY. GET MEDICAL ATTENTION.

IF SWALLOWED: DO NOT INDUCE VOMITING. KEEP PERSON WARM, QUIET, AND GET MEDICAL ATTENTION. ASPIRATION OF MATERIAL INTO THE LUNGS DUE TO VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

IF BREATHED, IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION

SKIN CONTACT

SECTION VI-REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH:, STRONG OXIDIZING AGENTS.

SECTION VII- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE. DIKE AREA OF SPILL TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS. PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURED.

WASTE DISPOSAL METHOD:

SMALL SPILL: ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPORS TO COMPLETELY CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.

LARGE SPILL: DESTROY BY LIQUID INCINERATION.
CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS UNDER SPECIFIED CONDITIONS. (SEEK YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, NITRILE RUBBER

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

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PR 11 '95 12:56 FROM C S C ENG NAPOLEON TO 921694272E

Center tan

→ using right tank

VALSPAR CORPORATION
MATERIAL SAFETY DATA SHEET

********** SECTION 1: PRODUCT IDENTIFICATION

MANUFACTURERS ADDRESS	: 1101 THIRD STREET SOUTH, MINNEAPOL
MFG TELEPHONE NUMBER	: (612) 332-7371
24 HR EMERGENCY PHONE NO	: 1-800-228-5635
CHEMICAL NAME OR FAMILY	: PAINT PRODUCT
FORMULA	: NOT APPLICABLE
TRADE NAME	: 72 5004AL 5004AL WB EPOXY
ISSUE DATE	: 01-05-93

DATE PRINTED : 05-21-93

********** SECTION 2: HAZARDOUS INGREDIENTS **********

NAME	APPROX WT %	
COMMON(NA):DIMETHYLAMINOETHANOL CAS:108-01-0 CHEMICAL: ETHANOL, 2-DIMETHYLAMINO)	1%	TLV TWA 5.00 PPM TLV STEL NOT ESTAB OSHA PEL NOT ESTAB CEILING NOT ESTAB RECOMND NOT ESTAB
*COMMON(NA):N-BUTYL ALCOHOL CAS:71-36-3 CHEMICAL: 1-BUTANOL	5%	TLV TWA 50.00 PPM TLV STEL NOT ESTAB OSHA PEL NOT ESTAB CEILING 50.00 (01) RECOMND NOT ESTAB
*COMMON(NA):BUTYL CARBITOL CAS:112-34-5 CHEMICAL: ETHANOL,2-(2-BUTOXYETHOXY)-	5%	TLV TWA NOT ESTAB TLV STEL NOT ESTAB OSHA PEL NOT ESTAB CEILING NOT ESTAB RECOMND 35.00 PPM
*COMMON(2):BUTYL CELLOSOLVE CAS:111-76-2 CHEMICAL: ETHANOL, 2-BUTOXY-	5%	TLV TWA 25.00 PPM TLV STEL NOT ESTAB OSHA PEL 25.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB

CHEMICALS NOTED WITH A (*) ARE REPORTABLE UNDER SECTION 313 OF SARA TITLE III

(1) = PPM SKIN
(2) = GLYCOL ETHER, SEE SECTION 5.

********** SECTION 3: PHYSICAL DATA **********

BOILING POINT: 212 DEG F.
VAPOR PRESSURE MM HG AT 77 DEG F: 24.0
VAPOR DENSITY (AIR = 1.0): 5.6
SPECIFIC GRAVITY: 1.05
PERCENT VOLATILE BY VOLUME: 61.78

VALSPAR CORPORATION
MATERIAL SAFETY DATA SHEET

****CONTINUED****

********** SECTION 3: PHYSICAL DATA
EVAPORATION RATE (BUTYL ACETATE = 1): 1.0
SOLUBILITY IN WATER: YES
APPEARANCE AND ODOR: NORMAL FOR A COATINGS PRODUCT.

********** SECTION 4: FIRE AND EXPLOSION HAZARD

FLASH POINT TCC/PM DEG F : 138
LOWER EXPLOSIVE LIMIT : 1.00
UPPER EXPLOSIVE LIMIT : 12.00

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND/OR WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES:
FIRE FIGHTERS MUST WEAR SELF CONTAINED BREATHING APPARATUS OR AIR MASKS.
CONTAINERS EXPOSED TO FIRE SHOULD BE KEPT COOL WITH WATER SPRAY.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS:
NONE

********** SECTION 5: HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: NOT REQUIRED FOR MIXTURE.

EFFECTS OF OVEREXPOSURE:
IMMEDIATE EFFECTS (ACUTE):
CAN BE ABSORBED THROUGH THE SKIN.
HARMFUL IF INHALED. MAY AFFECT THE BRAIN, NERVOUS SYSTEM OR RESPIRATORY SYSTEM, CAUSING DIZZINESS, HEADACHE, NAUSEA OR RESPIRATORY IRRITATION.
OVEREXPOSURE TO INGREDIENTS IN THIS PRODUCT MAY CAUSE NOSE AND THROAT IRRITATION, EYE IRRITATION, EYE BURNS, SKIN IRRITATION, RESPIRATORY TRACT IRRITATION, ASTHMATIC ATTACK AND/OR REACTION, RESPIRATORY SENSITIZATIO.
DELAYED EFFECTS (CHRONIC):
CONTAINS GLYCOL ETHER WHICH HAS BEEN SHOWN TO CAUSE BLOOD EFFECTS DAMAGE IN LABORATORY ANIMALS.
NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.
CONTAINS INGREDIENTS WHICH MAY CAUSE SKIN BURNS, LIVER DAMAGE, KIDNEY DAMAGE, BLOOD DAMAGE, HEARING LOSS.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE - ANY RESPIRATORY OR SKIN CONDITION.

EMERGENCY AND FIRST AID PROCEDURES:
EYE CONTACT: FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION.
SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER.
CLOTHING: REMOVE CONTAMINATED CLOTHING AND SHOES. WASH CLOTHING BEFORE REUSE. DESTROY CONTAMINATED SHOES.

VALSPAR CORPORATION
MATERIAL SAFETY DATA SHEET

**********SECTION 5: HEALTH HAZARD DATA **********CONTINUED**********

INHALATION: IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION IMMEDIATELY.

SWALLOWING: IF SWALLOWED, GET MEDICAL ATTENTION IMMEDIATELY.

POSSIBLE ROUTES OF ENTRY: INHALATION, INGESTION, SKIN ABSORBTION.

**********SECTION 6: REACTIVITY DATA **********

THIS PRODUCT IS STABLE
CONDITIONS TO AVOID: NONE
INCOMPATIBILITY: NA

HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON DIOXIDE/MONOXIDE

HAZARDOUS POLYMERIZATION: NONE

**********SECTION 7: SPILL OR LEAK PROCEDURES **********

VENTILATE AREA. AVOID BREATHING OF VAPORS. USE SELF-CONTAINED BREATHING APPARATUS OR AIRMASK FOR LARGE SPILLS IN A CONFINED AREA. AVOID ALL PERSONAL CONTACT.

WASTE DISPOSAL METHOD:
DISPOSE IN CHEMICAL DISPOSAL AREA OR IN A MANNER THAT COMPLIES WITH LOCAL, STATE, AND FEDERAL REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS.

**********SECTION 8: SPECIAL PROTECTION INFORMATION **********

RESPIRATORY PROTECTION:
WEAR APPROPRIATE, PROPERLY FITTED RESPIRATOR (NIOSH/MSHA APPROVED) DURING AND AFTER APPLICATION UNLESS AIR MONITORING [illegible] LEVELS ARE BELOW APPLICABLE LIMITS. FOLLOW RESPIRATOR MANUF[illegible]RECTIONS FOR RESPIRATOR USE.

VENTILATION:
REQUIRED FOR SPRAYING OR IN A CONFINED AREA, VENTILATION EQUIPMENT SHOULD BE EXPLOSION PROOF.

PROTECTIVE GLOVES: USUAL HAND PROTECTION FOR PAINT APPLICATION.
EYE PROTECTION: FOR SPRAY APPLICATION, USE CHEMICAL GOGGLES AS A MINIMUM. OTHERWISE, USE SAFETY GLASSES WITH SIDE SHIELDS AS A MINIMUM.
OTHER PROTECTIVE EQUIPMENT: USUAL CLOTHING FOR PAINTING OPERATIONS.

**********SECTION 9: SPECIAL PRECAUTIONS **********

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAMES. KEEP CONTAINER CLOSED WHEN NOT IN USE. DO NOT STORE ABOVE 120 DEG F. BASED ON THE PRODUCT FLASH POINT AND VAPOR PRESSURE SUITABLE STORAGE SHOULD BE PROVIDED IN ACCORDANCE WITH OSHA REGULATION 1910. 106. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUE,

****CONTINUED****

********** SECTION 9: SPECIAL PRECAUTIONS

INCLUDING FLAMABLE OR EXPLOSIVE VAPORS. DO NOT CUT, PUNCTURE OR WELD ON OR NEAR CONTAINER. ALL LABEL WARNINGS MUST BE OBSERVED UNTIL THE CONTAINER HAS BEEN CLEANED OR RECONDITIONED.

ABBREVIATIONS USED:
OSHA-OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION; IARC-INTERNATIONAL AGENCY FOR RESEARCH ON CANCER; LEL-LOWER EXPLOSIVE LIMITS; UEL-UPPER EXPLOSIVE LIMITS; MG CU M-MILLIGRAMS PER METERS CUBED; MM-MILLIMETERS MPPCF-MILLIONS OF PARTICLES PER CUBIC FOOT; MSHA-MINE SAFETY AND HEALTH ADMINISTRATION; NA-NOT APPLICABLE; NIOSH-NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH; NOT EST-NOT ESTABLISHED; NTP-NATIONAL TOXICOLOGY PROGRAM; PB-LEAD; PEL-PERMISSIBLE EXPOSURE LEVEL; PPM-PARTS PER MILLION; TCC/PM-TAG CLOSED CUP/PENSKY-MARTEN;RECM-RECOMMENDED;TLV-THRESHOLD LIMIT VALUES.

********** DISCLAIMER SECTION

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West tank

CAMPBELL CONTAINER COMPANY R - I - 5A

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS, AND RELATED MATERIALS

SECTION I - GENERAL SUPPLIER DATA

MANUFACTURER'S NAME: Clement "Coverall" Company DATE PREPARED: 4/22/9

ADDRESS: 623 Van Hook Street, P. O. Box 557
Camden, New Jersey 08101

EMERGENCY TELEPHONE NO.: 609-42[illegible]

CAMPBELL'S CODE: [redacted]

PRODUCT CLASS:

TRADE NAME: [redacted] MANUFACTURER'S CODE: 49-30

Hi Solids "C" Enamel

SECTION II - HAZARDOUS MATERIALS

INGREDIENT	WT.%	TLV (PPM)	LEL	VAPOR PRESSURE
Aliphatic Hydrocarbon	19	275	0.9	2
Aromatic Hydrocarbon	3	200	1.0	6

SECTION III - PHYSICAL DATA

BOILING RANGE: 230-296 % VOLATILE BY VOLUME: 30 WT./GAL.: (Lbs.)

EVAPORATION RATE: (X) SLOWER THAN ETHER ( ) FASTER VAPOR DENSITY (X) HEAVIER ( ) LIGHTER THA

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY: Flam. Liq. Class II FLASH POINT: 86°F LEL: 0.9

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Avoid sources of ignition. Ground all transfer equipment. Closed containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES: Water spray (fog nozzles) may be used f cooling containers.

CONTAINER RESEARCH CONTAINER PRODUCTION

4/22/93

Pg 1

CAMPBELL CONTAINER COMPANY

R - 1 - 5B

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS, AND RELATED MATERIALS

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 267 ppm (weighted average of solvent mixture)

EFFECTS OF OVEREXPOSURE: Severe eye irritation. Drying of skin. Excess inhalation causes headache, dizziness, nausea.

EMERGENCY AND FIRST AID PROCEDURES: In case of skin contact, flush with plen of water: for eyes, immediately flush with water for 15 minutes and get medical attention. If exposed to high concentration of vapor, remove patient to fresh air. If swallowed, CALL A PHYSICIAN IMMEDIATELY. DO NOT induce vomiting.

SECTION VI - REACTIVITY DATA

STABILITY: ○ UNSTABLE ◉ STABLE

HAZARDOUS POLYMERIZATION: ○ MAY OCCUR ◉ WILL NOT OCCUR

INCOMPATIBILITY (Materials to avoid): Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS: As with any organic chemical, thermal decomposition will yield carbon dioxide and probably carbon monoxide.

CONDITIONS TO AVOID: None

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove sources of ignition, ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD: Incinerate in approved facility in accordance with local, state and federal regulations. Do not incinerate closed container.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH approved respiratory device may be used. But, under normally well ventilated conditions no respiratory problems may be expected.
VENTILATION: All application areas should be ventilated in accordance with OSHA regulations.
PROTECTIVE GLOVES: Recommended
EYE PROTECTION: Use approved safety eyewear with splash guards.
OTHER PROTECTIVE EQUIPMENT: Safety shower and eye bath.

4/22/83

CONTAINER RESEARCH

CONTAINER PRODUCTION

CAMPBELL CONTAINER COMPANY E - I - 5C

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS, AND RELATED MATERIALS

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep away from heat, spark and open flame. Use only with adequate ventilation. Since emptied container retains product residue (vapor or l[illegible]), all labeled hazard precautions must be observed.

OTHER PRECAUTIONS: Avoid prolonged or repeated breathing of vapor or spray mist. Avoid contact with eyes and skin. Do not take internally.

CONTAINER RESEARCH

CONTAINER PRODUCTION

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SITE SERVICES - GENERAL SAFETY

I. SAFETY PRACTICES

A. PERSONAL PRECAUTIONS

--EATING, DRINKING, CHEWING GUM OR TOBACCO, SMOKING OR ANY PRACTICE THAT INCREASES THE PROBABILITY OF HAND-TO-MOUTH TRANSFER AND INGESTION OF MATERIAL IS PROHIBITED IN ANY AREA DESIGNATED CONTAMINATED.

--WHENEVER DECONTAMINATION PROCEDURES FOR OUTER GARMENTS ARE IN EFFECT, THE ENTIRE BODY SHOULD BE THOROUGHLY WASHED AS SOON AS POSSIBLE AFTER THE PROTECTIVE GARMENT IS REMOVED.

--CONTACT WITH CONTAMINATED OR SUSPECTED CONTAMINATED SURFACES SHOULD BE AVOIDED. WHENEVER POSSIBLE, DO NOT WALK THROUGH PUDDLES, LEACHATE, DISCOLORED SURFACES, KNEEL ON GROUND, LEAN, SIT, OR PLACE EQUIPMENT ON DRUMS, CONTAINERS, OR THE GROUND.

--MEDICINE AND ALCOHOL CAN POTENTIATE THE EFFECTS FROM EXPOSURE TO TOXIC CHEMICALS. PRESCRIBED DRUGS SHOULD NOT BE TAKEN BY PERSONNEL ON RESPONSE OPERATIONS WHERE THE POTENTIAL FOR ABSORPTION, INHALATION, OR INGESTION OF TOXIC SUBSTANCES EXISTS UNLESS SPECIFICALLY APPROVED BY A QUALIFIED PHYSICIAN. ALCOHOLIC BEVERAGE INTAKE SHOULD BE AVOIDED DURING RESPONSE OPERATIONS.

B. SITE SAFETY PLANS

--ALL PERSONNEL MUST BE FAMILIAR WITH STANDARD OPERATING SAFETY PROCEDURES AND ANY ADDITIONAL INSTRUCTIONS AND INFORMATION CONTAINED IN THE SITE SAFETY PLAN.

--ALL PERSONNEL MUST ADHERE TO THE INFORMATION CONTAINED IN THE SITE SAFETY PLAN.

C. OPERATIONS

--ALL PERSONNEL GOING ON-SITE MUST BE ADEQUATELY TRAINED AND THOROUGHLY BRIEFED ON ANTICIPATED HAZARDS, EQUIPMENT TO BE WORN, SAFETY PRACTICES TO BE FOLLOWED, EMERGENCY PROCEDURES, AND COMMUNICATIONS.

--ANY REQUIRED RESPIRATORY PROTECTIVE DEVICES AND CLOTHING MUST BE WORN BY ALL PERSONNEL GOING INTO AREAS DESIGNATED FOR WEARING PROTECTIVE EQUIPMENT.

--PERSONNEL ON-SITE MUST USE THE BUDDY SYSTEM WHEN WEARING RESPIRATORY PROTECTIVE EQUIPMENT. AS A MINIMUM, A THIRD PERSON, SUITABLY EQUIPPED AS A SAFETY BACKUP, IS REQUIRED DURING INITIAL ENTRIES.

--DURING CONTINUAL OPERATIONS, ON-SITE WORKERS ACT AS SAFETY BACKUP TO EACH OTHER. OFF-SITE PERSONNEL PROVED EMERGENCY ASSISTANCE.

--COMMUNICATIONS USING RADIOS, HAND SIGNALS, SIGNS, OR OTHER MEANS MUST BE MAINTAINED BETWEEN INITIAL ENTRY MEMBERS AT ALL TIMES. EMERGENCY COMMUNICATIONS SHOULD BE PREARRANGED IN CASE OF RADIO FAILURE, NECESSITY FOR EVACUATION OF SITE, OR OTHER REASONS.

--PERSONNEL AND EQUIPMENT IN THE CONTAMINATED AREA SHOULD BE MINIMIZED, CONSISTENT WITH EFFECTIVE SITE OPERATIONS.

--WORK AREAS FOR VARIOUS OPERATIONAL ACTIVITIES MUST BE ESTABLISHED.

--PROCEDURES FOR LEAVING A CONTAMINATED AREA MUST BE PLANNED AND IMPLEMENTED PRIOR TO GOING ON-SITE. WORK AREAS AND DECONTAMINATION PROCEDURES MUST BE ESTABLISHED BASED ON EXPECTED SITE CONDITIONS.

ORGANIZATION

PLANNING AND ORGANIZATION ARE IMPORTANT ELEMENTS OF ANY HAZARDOUS WASTE SITE ACTIVITY. POTENTIAL HAZARDS TO HEALTH AND SAFETY CAN BE REDUCED BY FORMULATING EFFECTIVE PLANS TO DEAL WITH HAZARDOUS OPERATIONS. THIS SITE SPECIFIC SAFETY PLAN INCLUDES AN ORGANIZATIONAL CHART THAT:

*IDENTIFIES A LEADER WHO HAS AUTHORITY TO DIRECT ALL ACTIVITIES.
*IDENTIFIES AND DEFINES RESPONSIBILITIES OF KEY PERSONNEL.
*SHOWS LINES OF AUTHORITY, RESPONSIBILITY, AND COMMUNICATION.

ALL SITE PERSONNEL WILL REVIEW THE HEALTH AND SAFETY PLAN PRIOR TO OPERATIONS. A FORM WILL BE SIGNED STATING THAT ALL SITE PERSONNEL HAVE REVIEWED THE PLAN AND ANY QUESTIONS CONCERNING THE PLAN HAVE BEEN ANSWERED.

PROJECT MANAGER: SCOTT FERRY

REVIEWS SITE HISTORY
PREPARES AND ORGANIZES WORK PLAN
SETS UP EQUIPMENT NEEDS
COORDINATES ACTIVITIES WITH APPROPRIATE OFFICIALS
BRIEFS FIELD TEAMS ON SPECIFIC ASSIGNMENTS
PREPARES REPORTS AND FILES ON ACTIVITIES
SERVES AS A LIAISON WITH PUBLIC AFFAIRS

HEALTH AND SAFETY COORDINATOR: TAMERA TUCK

REVIEWS SITE HISTORY INCLUDING SITE HAZARDS
DEVELOPS SITE SPECIFIC HEALTH AND SAFETY PLAN
COORDINATES ACTIVITIES WITH PROJECT SUPERVISOR
IMPLEMENTS HEALTH AND SAFETY INCLUDING PERIODIC INSPECTIONS

PROJECT SUPERVISOR: MIKE COLE

MANAGER OF FIELD OPERATIONS
EXECUTES WORK PLAN AND SCHEDULE
ENFORCES SAFETY PROCEDURES
DOCUMENTS FIELD AND SITE ACTIVITIES
REPORTS TO PROJECT MANAGER
MONITORS ON SITE CONDITION
DETERMINES LEVEL OF PROTECTION TO BE USED ON A DAILY BASIS
ENSURE PROPER USE OF PPE
CONDUCTS DAILY SAFETY MEETINGS
CONDUCTS AIR MONITORING AND DECONTAMINATION OF SAFETY
ACTIVITIES INITIATES EMERGENCY RESPONSE AND FIRST AID
TREATMENT REPORTS ALL ACCIDENTS AND INCIDENTS TO PROJECT MANAGER

EMERGENCY RESPONSE TEAM:

THE EMERGENCY RESPONSE TEAM IS FAMILIAR WITH EMERGENCY PROCEDURES EVACUATION ROUTES AND CONTINGENCY PLANS. ALSO FIRST RESPONDERS TO SPILLS, ACCIDENTS, OR ANY OTHER EMERGENCIES AS DIRECT BY PROJECT SUPERVISOR.

TRAINING PROGRAM

ALL GREAT LAKES RESPONSE PERSONNEL HAVE BEEN TRAINED IN PROPER SAFETY PROCEDURES. ALL PERSONNEL ENTERING THE WORK SITE WILL BE INFORMED OF THE POSSIBLE DANGERS AND LONG TERM HAZARDS KNOWN TO BE PRESENT AT THIS SITE.

THE PURPOSE:

1. TO MAINTAIN SAFE WORK HABITS AMONG THE WORK CREW.
2. TO TRAIN AND INFORM PERSONNEL INVOLVED WITH THE PROJECT OF THE HAZARDS PRESENT AT THIS SITE.

ALL GREAT LAKES RESPONSE PERSONNEL HAVE BEEN TRAINED IN CLASSROOM INSTRUCTIONS TO INCLUDE:

1. OSHA 40 HOUR HEALTH AND SAFETY PROGRAM
2. 40 HOUR CONFINED SPACE ENTRY & RESCUE TRAINING
3. RED CROSS FIRST AIR AND CPR
4. RESPIRATORY PROTECTION
5. PROTECTIVE CLOTHING
6. USE OF SAFETY EQUIPMENT
7. DECONTAMINATION PROCEDURES
8. BASIC CHEMICAL CONCEPTS AND HAZARDOUS PROPERTIES

IN ADDITION TO CLASSROOM INSTRUCTION, GREAT LAKES RESPONSE FIELD EMPLOYEES RECEIVE "HANDS ON" AND "ON THE JOB" TRAINING AS WELL AS, ANNUAL REFRESHERS IN KEY AREAS OF SAFETY.

SITE SPECIFIC TRAINING WILL INCLUDE INFORMATION TO ENSURE THAT THE PERSONNEL WORKING AT THE SITE ARE ABLE TO RESPOND EFFECTIVELY TO EMERGENCIES. THIS SEGMENT OF THE TRAINING WILL INCLUDE A DESCRIPTION OF THE COMMUNICATION SYSTEMS TO BE USED.

MEDICAL SURVEILLANCE PROGRAM

A MEDICAL SURVEILLANCE HAS BEEN IMPLEMENTED FOR ALL EMPLOYEES WHO ARE INVOLVED IN THE REMEDIATION OF HAZARDOUS WASTE SITES. THIS PROGRAM HELPS TO:

*ASSURE THE EMPLOYEE IS MEDICALLY SOUND AND IS ABLE TO WEAR THE PERSONNEL PROTECTIVE EQUIPMENT WHICH IS REQUIRED OF THESE KINDS OF SITES (29 CFR 1910.138 [B] [10]).

*IDENTIFY ANY ILLNESS OR CONDITIONS THAT MIGHT BE AGGRAVATED BY EXPOSURES OR JOB ACTIVITIES.

*ESTABLISH A BASELINE TO EVALUATE FUTURE CHANGES IN HEALTH.

*TO RECOGNIZE CHANGES, REACTIONS, OR ABNORMALITIES AT THE EARLIEST OPPORTUNITY SO THAT CORRECTIVE MEASURES CAN BE TAKEN.

ALL MEDICAL SURVEILLANCE SHALL BE PERFORMED BY A BOARD CERTIFIED OCCUPATIONAL HEALTH PHYSICIAN OR EQUIVALENT. GREAT LAKES RESPONSE EMPLOYEES PHYSICALS ARE NORMALLY PERFORMED BY:

MENTOR MEDNET
9000 MENTOR AVE.
MENTOR, OHIO 44060
216-974-4155

ALL PHYSICALS ARE DONE IN ACCORDANCE WITH 29 CFR 1910.138 [B] [10] AND SHALL INCLUDE THE FOLLOWING:

*COMPLETE MEDICAL AND OCCUPATIONAL/MEDICAL HISTORY AND PHYSICAL EXAM BY PHYSICIAN; INCLUDES TITMUS VISION TEST (OSHA APPROVED); INCLUDES VISUAL ACUITY FOR DISTANCE, NEAR, DEPTH AND COLOR VISION
*DIPSTICK URINALYSIS (SCREENS FOR DIABETES AND KIDNEY DISEASE)
*SCREENING AUDIO GRAM (OSHA APPROVED)
*SPIROMETRY (PULMONARY FUNCTION TEST)
*CBC WITH DIFFERENTIAL (BLOOD TEST)
*SMAC 19 (TESTS FOR 19 DIFFERENT BLOOD CHEMISTRIES)
*MICROSCOPIC URINALYSIS
*EKG
*CHEST X-RAY (INITIAL THEN AT M.D.'S DISCRETION)

SITE CONTROL

IT IS OF THE UTMOST IMPORTANCE TO ESTABLISH SITE CONTROL IN ORDER TO ENSURE THAT ALL PERSONNEL ARE PROPERLY PROTECTED AGAINST THE HAZARDS OF EACH PROJECT. ALSO TO DEFINE WHAT IS CONTAMINATED AND CONFINE THE CONTAMINATION.

IN ORDER TO ACCOMPLISH THIS, THE SITE MUST BE DIVIDED INTO THE FOLLOWING AREA.

* HOT ZONE
* CONTAMINATION REDUCTION ZONE
* CONTAMINATION REDUCTION CORRIDOR
* DECON ZONE
* SUPPORT ZONE - WHICH IS NOT CONTAMINATED AND PERSONS ARE SAFE WITHOUT PPE.

HOT ZONE

THIS IS THE AREA OF CONTAMINATION WHERE IT IS ESSENTIAL FOR ALL PERSONS IN THIS AREA TO BE FULLY PROTECTED FROM THE ENVIRONMENT THEY MAY BE IN. THE HOT ZONE WILL BE IDENTIFIED BY BARRIER TAPE.

CONTAMINATION REDUCTION ZONE

THE CONTAMINATION RED ZONE IS THE BUFFER BETWEEN THE HOT ZONE AND THE SUPPORT ZONE.

CONTAMINATION REDUCTION CORRIDOR

THE CONTAMINATION REDUCTION CORRIDOR IS THE ENTRANCE AND EXIT FROM THE HOT ZONE TO THE SUPPORT ZONE ALONG THIS CORRIDOR YOU WILL FIND A STATION FOR THE DECONTAMINATION OF EQUIPMENT, AS WELL AS, PERSONNEL EMERGENCY RESPONSE EQUIPMENT, MONITORING EQUIPMENT, PPE, AND SUPPLIES SHOULD ALSO BE MADE AVAILABLE ALONG THIS ROUTE.

SUPPORT ZONE

THE SUPPORT ZONE IS THE LOCATION OF ALL SUPPORT FUNCTIONS WHICH ARE NEEDED TO ALLOW THE OPERATIONS IN THE HOT ZONE AND CONTAMINATION REDUCTION ZONE TO RUN SMOOTHLY. THIS IS AN AREA WITHOUT CONTAMINATION, AND THE HEALTH AND SAFETY OF ALL PERSONNEL MUST NOT BE THREATENED IN THIS AREA.

PERSONAL PROTECTION EQUIPMENT

ALL SITE PERSONNEL MUST BE ADEQUATELY PROTECTED FROM POTENTIAL HEALTH AND SAFETY HAZARDS AT THE SITE. A SUFFICIENT AND DIVERSE INVENTORY OF ALL SAFETY EQUIPMENT AND PERSONAL PROTECTION EQUIPMENT NECESSARY TO MEET ANTICIPATED HAZARDS WILL BE AVAILABLE ON THE SITE TO ALL EMPLOYEES. THE PERSONNEL AND SITE VISITORS MUST BE INSTRUCTED IN THE PROPER USE OF THIS EQUIPMENT BEFORE ENTRY TO THE WORK AREA IS PERMITTED.

PRELIMINARY DETERMINATION - LEVELS OF PROTECTION

WHEN WORKING AT THE CAMPBELL SOUP SITE, ALL GREAT LAKES PERSONNEL WILL WEAR A MINIMUM OF THE FOLLOWING:

* WORK UNIFORM
* HARD HAT
* SAFETY GLASSES
* STEEL TOE BOOTS

BASED ON THE AVAILABLE INFORMATION, GREAT LAKES RESPONSE PERSONNEL WILL USE THE LEVELS OF PROTECTION DESCRIBED ON THE FOLLOWING PAGES DURING SITE ACTIVITIES BASED UPON AMBIENT AIR MONITORING.

HOT ZONE
PERSONAL PROTECTIVE EQUIPMENT

LEVEL "B"

LEVEL "B" PROTECTION IS REQUIRED WHEN ANY OF THE FOLLOWING CRITERIA ARE MET:

1. THE ATMOSPHERE CONTAINS LESS THAN 19.5% OXYGEN.
2. THE TYPES OF ATMOSPHERIC CONCENTRATIONS OF TOXIC SUBSTANCES HAVE BEEN IDENTIFIED AND REQUIRE THE HIGHEST LEVEL OF RESPIRATORY PROTECTION, BUT A LOWER LEVEL OF SKIN AND EYE PROTECTION.

ADDITIONAL REQUIREMENT:

1. AN ATMOSPHERE THAT IS I.D.L.H. OR EXCEEDS THE LIMITS OF PROTECTION AFFORDED BY A FULL FACE AIR PURIFYING RESPIRATOR.

LEVEL "B" PROVIDES THE HIGHEST LEVEL OF RESPIRATORY PROTECTION, BUT A LESSER LEVEL OF SKIN PROTECTION AND CONSISTS OF:

A. PRESSURE DEMAND FULL FACE PIECE S.C.B.A. OR PRESSURE DEMAND SUPPLIED AIR RESPIRATOR WITH A HIP PACK OR ESCAPE S.C.B.A.

B. HOODED CHEMICAL RESISTANT SPLASH SUIT OR COVERALLS

C. INNER AND OUTER CHEMICAL RESISTANT GLOVES

D. HARD HAT

OPTIONS:

A. TWO WAY RADIO COMMUNICATIONS

B. FACE SHIELD

C. LONG COTTON UNDERWEAR

D. SEALING TAPE

CONTAMINATION REDUCTION ZONE

PERSONAL PROTECTIVE EQUIPMENT
LEVEL "C"

LEVEL "C" PROTECTION IS PERMITTED WHEN ALL OF THE FOLLOWING CRITERIA ARE MET:

1. OXYGEN CONTENT OF THE ATMOSPHERE IS AT LEAST 19.5% OXYGEN
2. SUBSTANCE(S) IS IDENTIFIED AND ITS CONCENTRATION(S) IS MEASURED.
3. SUBSTANCE(S) HAS ADEQUATE WARNING PROPERTIES.
4. THE INDIVIDUAL PASSES A QUALITATIVE FIT TEST FOR MASK.
5. ATMOSPHERIC CONTAMINATE CONCENTRATIONS DO NOT EXCEED I.D.L.H. LEVELS.
6. MEASURED AIR CONCENTRATIONS OF IDENTIFIED SUBSTANCES WILL BE REDUCED BY THE RESPIRATOR TO LEVELS AT OR BELOW EXPOSURE LIMITS.

LEVEL "C" PROVIDES AIR PURIFYING RESPIRATORY PROTECTION TOGETHER WITH SKIN PROTECTION AND CONSISTS OF:

A. FULL FACE AIR PURIFYING CANISTER EQUIPPED RESPIRATOR

B. HOOD CHEMICAL RESISTANT SUIT

C. INNER AND OUTER CHEMICAL RESISTANT GLOVES

D. STEEL TOE AND SHANK CHEMICAL RESISTANT BOOTS

OPTIONS:

A. HARD HAT

B. FACE SHIELD

C. SEALING TAPE

SUPPORT ZONE
PERSONAL PROTECTIVE EQUIPMENT
LEVEL "D"

LEVEL "D" PROTECTION IS PERMITTED WHEN THE FOLLOWING CRITERIA IS MET:

1. NO HAZARDOUS AIR POLLUTANTS HAVE BEEN MEASURED.
2. WORK FUNCTIONS PRECLUDE SPLASHES, IMMERSION, OR POTENTIAL FOR UNEXPECTED INHALATION OF ANY CHEMICALS.

LEVEL "D" PROVIDES NO RESPIRATORY PROTECTION AND ONLY MINIMAL SKIN PROTECTION AND CONSISTS OF:

A. WORK UNIFORM OR COVERALLS

B. STEEL TOE AND SHANK BOOTS

C. SAFETY GOGGLES OR SAFETY GLASSES

OPTIONS:

A. HARD HAT

B. FACE SHIELD

CONFINED SPACE ENTRY

NO EMPLOYEE SHALL ENTER INTO ANY CONFINED SPACE UNLESS PROPERLY TRAINED AND UNDER THE DIRECT SUPERVISION OF A QUALIFIED SUPERVISOR.
NO EMPLOYEE SHALL ENTER INTO ANY CONFINED SPACE UNLESS A CONFINED SPACE ENTRY PERMIT HAS BEEN AUTHORIZED AND ISSUED.
A CONFINED SPACE IS DEFINED AS ANY AREA WITH RESTRICTED ENTRANCE OR EXIT.
IF POSSIBLE, ALL HAZARDS WILL BE ELIMINATED OR REDUCED BY THE USE OF ENGINEERING CONTROLS.
PRIOR TO ENTRY INTO A CONFINED SPACE, ALL PERSONNEL WILL BE BRIEFED ON HAZARD RECOGNITION AND RESCUE PROCEDURES.
THE MINIMUM NUMBER OF PERSONNEL REQUIRED FOR CONFINED SPACE ENTRY IS ONE SUPERVISOR AND TWO TECHNICIANS.

1.) PRIOR TO ANY CONFINED SPACE ENTRY, A "CONTROL ZONE" OR BOUNDARY WILL BE ESTABLISHED BY THE FIELD TEAM LEADER.

2.) PRIOR TO ENTRY INTO A CONFINED SPACE, THE INTERIOR OF THE SPACE WILL BE MONITORED FOR THE FOLLOWING ATMOSPHERIC HAZARDS: OXYGEN DEFICIENCY (<19.5% O2), COMBUSTIBLE GASES OR VAPORS (>10% L.E.L.), AND TOXIC GASES.
NOTE: THE PRESENCE OF ANY OF THE ABOVE WOULD REQUIRE SPACE VENTILATION.

3.) AT THIS POINT, A CONFINED SPACE ENTRY PERMIT SHOULD BE FILLED OUT AND POSTED. THE PERMIT SHOULD BE POSTED IMMEDIATELY ADJACENT TO ALL ENTRY PORTS AND VISIBLE TO EMERGENCY RESCUE PERSONNEL.

4.) PERSONNEL DESIGNATED TO CARRY OUT CONFINED SPACE ENTRY PROCEDURE SHOULD:
   A. BE PROPERLY TRAINED ON THE USE OF EMERGENCY RESCUE EQUIPMENT.
   B. BE PROPERLY TRAINED ON CONFINED SPACE ENTRY.
   C. BE PROPERLY TRAINED IN THE USE OF SUPPLIED BREATHING AIR.
   D. BE FAMILIAR WITH THE CONFINED SPACE ENTRY PERMIT.

5.) ANY AND ALL EQUIPMENT TO BE USED SHOULD BE INSPECTED PRIOR TO ENTRY INTO THE SPACE. SPECIAL PRECAUTIONS MUST BE TAKEN WHEN ENTERING A FLAMMABLE OR COMBUSTIBLE ATMOSPHERE.
   A. ALL ELECTRIC TOOLS OR EQUIPMENT MUST BE LOW VOLTAGE AND EXPLOSION PROOF.
   B. ALL METALLIC TOOLS MUST BE MADE OF NON SPARKING MATERIAL UNLESS AUTHORIZED BY THE FIELD TEAM LEADER.
   C. WHEN PUMPING OUT FLAMMABLE MATERIAL, PRECAUTIONS MUST BE MADE TO ENSURE ALL TANKS, DRUMS, PUMPS, ETC. ARE PROPERLY GROUNDED.

6.) PRIOR TO CONFINED SPACE ENTRY, THE SAFETY MAN (ATTENDANT) WILL, IN WRITING, POST THE NAME(S) OF ENTRY PERSONNEL ALONG WITH THE TIME AND AMOUNT OF AIR IN THE SUPPLY BOTTLES.

7.) THE SAFETY MAN (ATTENDANT) WILL AT ALL TIMES MAINTAIN CONTACT WITH PERSONNEL INSIDE THE CONFINED SPACE BY USE OF A RETRIEVAL LINE.
NOTE: VISUAL AND VOICE CONTACT WILL BE MAINTAINED WHEN AT ALL POSSIBLE.

8.) THE SAFETY OF PERSONNEL WORKING WITHIN A CONFINE SPACE IS THE DIRECT RESPONSIBILITY OF THE SAFETY PERSON(S). IF FOR ANY REASON THE SAFETY WATCH MUST LEAVE HIS STATION, ALL PERSONNEL INSIDE THE CONFINED SPACE MUST EXIT IMMEDIATELY.

9.) UNDER NO CIRCUMSTANCE IS THE SAFETY WATCH (ATTENDANT) TO ENTER THE CONFINED SPACE TO PERFORM RESCUE PROCEDURES.

10.)UPON COMPLETION OF THE CONFINED SPACE ENTRY, THE ENTRY PERMIT IS TO BE RETURNED TO THE SITE SERVICE SUPERVISOR TO BE KEPT AS HIS PERMANENT RECORD.

RESPIRATORY PROTECTION PROGRAM

GREAT LAKES RESPONSE RESPIRATORY PROTECTION PROGRAM HAS BEEN INSTALLED TO PROTECT THE SAFETY AND HEALTH OF ITS FIELD EMPLOYEES.

1.) PRIOR TO WORK ON SITE, DOCUMENTED APPROVAL WILL BE OBTAINED FOR CONTRACTOR EMPLOYEES TO USE A RESPIRATOR. THIS APPROVAL WILL BE OBTAINED FROM THE PHYSICIAN THAT HAS CONDUCTED THE PHYSICAL EXAMINATION (INCLUDING AN EXAMINATION OF THE PULMONARY FUNCTION) FOR EACH EMPLOYEE.

2.) THE TRAINING PROGRAM EDUCATES SITE PERSONNEL IN THE PROPER OPERATIONS OF THE RESPIRATORY EQUIPMENT, AS WELL AS, ITS LIMITATIONS. ON-SITE AIR MONITORING WILL BE PERFORMED TO ASSIST IN THE SELECTION OF THE PROPER SAFETY EQUIPMENT TO BE WORN.

3.) ONLY NIOSH APPROVED RESPIRATORS WILL BE USED. RESPIRATORS WILL BE SELECTED ACCORDING TO THE OSHA AND ANSI STANDARDS, AS WELL AS, WORK-CASE CONDITIONS ANTICIPATED FOR EACH PARTICULAR WORK PERIOD.

4.) INSTRUCTION AND TRAINING

A.) MEDICAL APPROVAL. THIS APPROVAL DOCUMENT WILL BE AVAILABLE TO THE CLIENT UPON REQUEST.

B.) RESPIRATOR FITTING. THE PROJECT SUPERVISOR WILL CONDUCT THE FIT TESTING.

C.) EMPLOYEE INSTRUCTION. THE USERS ARE INSTRUCTED AS TO THE USAGE, LIMITATIONS AND CLEANING PROCEDURE OF THE RESPIRATOR BEFORE THEY ARE ALLOWED TO START WORK. SITE PERSONNEL WILL BE ADVISED DURING THE DAILY SAFETY MEETINGS AS TO THE TYPE OF AIR CONTAMINANT THEY ARE BEING PROTECTED AGAINST FOR EACH PHASE OF THE OPERATION.

5.) EMPLOYEES WILL BE RESPONSIBLE FOR INSURING THAT THE RESPIRATOR IS FUNCTIONING PROPERLY PRIOR TO EACH DAY OF USE.

6.) AIR-LINE OR SCBA RESPIRATORY EQUIPMENT WILL BE INSPECTED DAILY. SPARE CYLINDERS FOR THIS EQUIPMENT WILL BE KEPT ON SITE ALSO BREATHING AIR CYLINDERS WILL BE CHECKED FOR OXYGEN AND POSSIBLE TOXIC GASES.

AIR MONITORING

PURPOSE:

AIR AND PERSONNEL MONITORING WILL BE CONDUCTED ON THIS SITE.

* TO INSURE PROPER SELECTION OF PERSONAL PROTECTION EQUIPMENT
* TO DELINEATE AREAS WHERE PROTECTION IS NEEDED
* ASSESS THE POTENTIAL HEALTH EFFECTS OF EXPOSURE
* TO DETECT ANY OFF SITE MIGRATION OF AIRBORNE CONTAMINATES

PROCEDURE:

DIRECT READING INSTRUMENTS WILL BE USED TO GIVE IMMEDIATE INFORMATION CONCERNING LEVELS OF CONTAMINATES. THESE SHALL INCLUDE:

1.) A COMBUSTIBLE GAS/OXYGEN DETECTOR FOR DETECTION OF FLAMMABLE OR EXPLOSIVE ATMOSPHERE AND OXYGEN DEFICIENCY (DYNAMATION CGM).

2.) THE DIRECT READING INSTRUMENT TO BE USED IS THE MICROTIP FOR DETECTION OF VOLATILE ORGANIC COMPOUNDS (HL-200).

3.) COLORIMETRIC INDICATOR TUBES FOR DETECTION OF SPECIFIC GASSES (DRAGGER).

ALL INSTRUMENTS WILL BE CALIBRATED TO THE MANUFACTURERS SPECIFICATIONS BEFORE USE, AND WILL BE OPERATED BY AN INDIVIDUAL WHO IS FAMILIAR WITH THE DEVICES OPERATING PROCEDURES. ALL RESULTS WILL BE KEPT IN A MONITORING LOG FOR CURRENT AND FUTURE USE.

DECONTAMINATION

PURPOSE:

TO ENSURE THAT PERSONNEL OR EQUIPMENT IN THE CONTAMINATED ZONE DO NOT SPREAD OR CARRY HAZARDOUS MATERIAL INTO A CLEAN ZONE.

OBJECTIVE:

BY SETTING UP A ZONE OF REDUCTION OR DECONTAMINATION AND FOLLOWING ESTABLISHED PROCEDURES ALL PERSONNEL WILL BE DECONTAMINATED BEFORE A TOTAL EXIT FROM THE CONTAMINATION ZONE OCCURS.

GREAT LAKES RESPONSE PERSONNEL AT THE CAMPBELL SOUP SITE WILL PROVIDE DECONTAMINATION OF PERSONNEL AND EQUIPMENT AS DESCRIBED ON THE FOLLOWING PAGES.

DECONTAMINATION PROCEDURES CAN BE MODIFIED AS NEEDED TO REFLECT THE SPECIFIC CIRCUMSTANCES WHICH ULTIMATELY DICTATES THE LEVELS OF DECONTAMINATION REQUIRED WHICH VARY WITH THE DEGREE AND NATURE OF CONTAMINATES. THE SITE SAFETY OFFICER IS THE ONLY PERSON WITH AUTHORITY TO MODIFY SITE SAFETY PROCEDURES.

LEVEL B DECONTAMINATION

PROCEDURE FOR FULL DECONTAMINATION

STATION 1: EQUIPMENT DROP

DEPOSIT EQUIPMENT USED ON-SITE (TOOLS, SAMPLING DEVICES AND, MONITORING INSTRUMENTS, RADIOS, ETC.) ON PLASTIC DROP CLOTHS. THESE ITEMS MUST BE DECONTAMINATED OR DISCARDED AS WASTE PRIOR TO REMOVAL FROM THE EXCLUSION ZONE.

STATION 2: OUTER BOOT AND OUTER GLOVE WASH AND RINSE

SCRUB OUTER BOOTS, OUTER GLOVES AND/OR SPLASH SUIT WITH DECONTAMINATION SOLUTION OR DETERGENT WATER. RINSE OFF USING WATER.

STATION 3: OUTER BOOT AND GLOVE REMOVAL

REMOVE OUTER BOOTS AND GLOVES. IF OUTER BOOTS ARE DISPOSABLE, DEPOSIT IN CONTAINER WITH PLASTIC LINER. IF NON-DISPOSABLE, STORE IN A CLEAN, DRY PLACE

STATION 4: OUTER GARMENT REMOVAL

REMOVE CHEMICAL RESISTANT OUTER GARMENTS AND DEPOSIT IN CONTAINER LINED WITH PLASTIC. DECONTAMINATE OR DISPOSE OF SPLASH SUITS AS NECESSARY.

STATION 5: RESPIRATORY PROTECTION REMOVAL

REMOVE HARDHAT, FACEPIECE, AND IF APPLICABLE, DEPOSIT ON A CLEAN SURFACE. APR CARTRIDGES WILL BE DISCARDED AS APPROPRIATE. WASH AND RINSE RESPIRATOR AT LEAST DAILY. WIPE OFF AND STORE RESPIRATORY GEAR IN A CLEAN, DRY LOCATION.

STATION 6: INNER GLOVE REMOVAL

REMOVE INNER GLOVES. DEPOSIT IN CONTAINER FOR DISPOSAL.

STATION 7: FIELD WASH

THOROUGHLY WASH HANDS AND FACE WITH SOAP AND WATER. SHOWER AS SOON AS POSSIBLE.

OTHER AREAS OF DECONTAMINATION

A.) WHEN EXITING FOR BREAKS, REST ROOMS, LUNCH OR ANY OTHER TIME IT IS NECESSARY TO EXIT THE CONTAMINATION ZONE, GREAT LAKES RESPONSE PERSONNEL WILL FOLLOW THESE PROCEDURES:

1.) IF THERE IS HEAVY CONTAMINATION, THE EMPLOYEE WILL PROCEED THROUGH TOTAL DECONTAMINATION BEFORE EXITING.

2.) IF THERE IS NOT HEAVY CONTAMINATION, THE CONTRACTORS EMPLOYEES WILL GO THROUGH DECONTAMINATION DOWN TO REMOVAL OF TYVEKS, BOOTS, GLOVES AND THEN PROCEED TO WASH HIS/HER FACE, NECK, HANDS AND ARMS BEFORE MOVING TO THE BREAK AREA.

B.) EXITS FOR MAJOR EMERGENCIES - DURING PERIOD OF MAJOR EMERGENCIES (LIFE OR HEALTH THREATENING CIRCUMSTANCES). WHEN EXITING FROM THE CONTAMINATED ZONE, IT WILL BE NECESSARY FOR GREAT LAKES RESPONSE PERSONNEL TO FOLLOW THESE PROCEDURES. (SEE CONTINGENCY PLAN)

1.) THE WORKER WILL GO THROUGH GROSS DECONTAMINATION; DROP OUTER GARMENTS IN THE AREA AND RECEIVE FIRST AID AT THAT TIME.

2.) IF THE ACCIDENT IS NOT SERIOUS, OFTEN THE WORKER IS TREATED AND THEY WILL RETURN TO THE CONTAMINATED AREA AFTER REDRESSING.

3.) IF THE ACCIDENT IS SERIOUS, THE WORKER WILL BE IMMEDIATELY TRANSPORTED TO THE HOSPITAL.

C.) EQUIPMENT DECONTAMINATION

ANY EQUIPMENT THAT CAN BE DECONTAMINATED (SOME HAND TOOLS CANNOT BE AND WILL BE DISPOSED OF) WILL BE SCRAPED IN THE CONTAMINATION ZONE TO REMOVE GROSS CONTAMINATION. IT WILL THEN BE BROUGHT TO THE DECON PAD AND WASHED WITH DECON SOLUTIONS, RINSED AND FINALLY STEAM CLEANED, TO ENSURE TOTAL DECONTAMINATION.

CONTINGENCY PLANS

CONTINGENCY PLANS FOR A VARIETY OF SITUATIONS ARE PRESENTED BELOW. THESE PLANS ARE STRUCTURED AROUND SPECIFIC SITUATIONS WHICH COULD OCCUR DURING THE PROJECT. A LIST OF LOCAL POLICE, FIRE AND OTHER EMERGENCY PHONE NUMBERS WILL BE POSTED AT THE JOB SITE, AS WELL AS A MAP WITH DIRECTIONS TO THE NEAREST MEDICAL FACILITY. THIS INFORMATION WILL BE REVIEWED WITH THE CREW PRIOR TO THE START OF OPERATIONS.

A.) CONTINGENCY PLANS FOR ON-SITE

1.) PHYSICAL INJURY TO EMPLOYEE

*FOR MINOR INJURIES, ROUTINE FIRST AID PROCEDURES WILL BE USED.
*FOR MAJOR INJURIES, AN AMBULANCE WILL IMMEDIATELY BE CALLED, FIRST AIDES WILL GET INFORMATION ABOUT THE NATURE OF THE INJURY FROM THE VICTIM, IF THE VICTIM IS CONSCIOUS.
*IF THE VICTIM IS UNCONSCIOUS, THOSE PROVIDING FIRST AID ASSISTANCE WILL CHECK FOR VITAL SIGNS.
*IN THE EVENT OF CESSATION OF BREATHING AND/OR CESSATION OF HEARTBEAT, APPROPRIATELY TRAINED (QUALIFIED) FIRST AIDES WILL ADMINISTER CARDIOPULMONARY RESUSCITATION.
*IN THE EVENT OF BLEEDING, BROKEN BONES, SHOCK, BURNS, HEAT EXHAUSTIONS, HEAT STROKE, SEIZURE, INSECT STING, ETC., THE FIRST AID TRAINED PERSONNEL ON SITE WILL EVALUATE THE SITUATION, ADMINISTER APPROPRIATE TEMPORARY AID AND TRANSPORT THE VICTIM THROUGH THE CONTAMINATION REDUCTION CORRIDOR AND SUMMON ASSISTANCE FROM THE LOCAL FIRE DEPARTMENT. IF THE INJURIES ARE SEVERE ENOUGH THAT MOVING THE VICTIM MAY AGGRAVATE THE INJURIES, THE FIRST AIDERS WILL NOT MOVE THE VICTIM UNLESS THERE IS IMMEDIATE DANGER FROM SURROUNDING CONDITIONS. MODIFIED DECONTAMINATION WILL BE PERFORMED UNLESS DOING SO WOULD FURTHER THREATEN THE VICTIMS LIFE OR HEALTH.

2.) LOCALIZED FIRE

*SOUND ALARM/NOTIFY PERSONNEL
*CALL SECURITY NOTIFY FIRE DEPARTMENT
*IMMEDIATELY NOTIFY CONTRACTING OFFICER
*MOVE ALL PEOPLE IN THE AREA UPWIND, AT A SAFE DISTANCE
*DECIDE WHETHER OR NOT IF WOULD BE ADVISABLE TO

ATTEMPT INITIAL FIGHTING OF THE FIRE
*IF DEEMED ADVISABLE TO ATTEMPT FIGHTING OF THE FIRE, THEN DO SO WITH THE MOST APPROPRIATE MEANS, I.E., WATER FOGGING, FOAM, HALON EXTINGUISHERS, COVERING WITH SOIL.
*ADVISE AND DIRECT THE FIRE DEPARTMENT UPON ARRIVAL OF THE NATURE OF THE FIRE.
*ASSIST THE FIRE DEPARTMENT IF REQUESTED, I.E. WITH DIRT MOVING
*AS SOON AS THE FIRE IS EXTINGUISHED, CLEAN UP ANY SPILLED MATERIAL, CONTAMINATED RUN-OFF OR SOIL. CONTAINERIZE AND DISPOSE OF THIS MATERIAL PROPERLY.

3.) UNCONTROLLED FIRE RELEASING TOXIC GASES

*SOUND ALARM NOTIFY PERSONNEL
*CALL SECURITY NOTIFY FIRE DEPARTMENT
*MOVE ALL PEOPLE IN THE AREA UPWIND, A SAFE DISTANCE
*RENDER FIRST AID TO ANY NEEDING IT
*CALL THE POISON CONTROL CENTER
*NOTIFY THE POLICE, STATE AND USEPA
*IMMEDIATELY NOTIFY CONTRACTING OFFICER
*NOTIFY ALL POSSIBLE DOWNWIND ENTITIES THAT WILL BE AFFECTED, PLACES OF EMPLOYMENT, AIRPORT, ETC.
*STAND BY TO ASSIST THE FIRE DEPARTMENT WITH INFORMATION ABOUT THE NATURE OF THE MATERIAL ON

FIRE, THE NATURE OF THE TOXIC GASES, THE SITE, WITH HEAVY EQUIPMENT, WITH SPECIALIZED EQUIPMENT, (I.E. CHEMICAL SUITS, DECONTAMINATION UNIT, ETC.)
*AS SOON AS THE FIRE IS EXTINGUISHED, CLEAN UP ANY SPILLED MATERIAL AND CONTAMINATED RUN-OFF OR SOIL, CONTAINERIZE AND DISPOSE OF PROPERLY.

SPILL CONTROL

FOR THE DURATION OF THE REMEDIAL OPERATIONS, THE CONTRACTOR WILL HAVE ON SITE THE PROPER EQUIPMENT AND TRAINED PERSONNEL TO ENACT GENERAL OR SPECIFIC EMERGENCY MEASURES REQUIRED TO CONTAIN AND REMOVE ANY MATERIALS, SOILS, SLUDGES OR LIQUIDS THAT BECOME CONTAMINATED DUE TO SPILLAGE. ALL COLLECTED MATERIAL OF THIS NATURE WILL BE PROPERLY CONTAINERIZED AND ANALYZED TO DETERMINE PROPER DISPOSAL METHODS. ALL SPILLED MATERIALS WILL BE PROPERLY CONTAINERIZED IN DRUMS OR TRUCKS, AND TRANSPORTED FOR ON SITE STORAGE OR TREATMENT WITH SIMILAR MATERIALS.

EMPLOYEE RISK NOTIFICATION INFORMATION
SOME OF THE RISKS YOU FACE

HEAVY NAPTHA:

EXTINGUISHING MEDIA:
CHEMICAL FOAM, DRY CHEMICAL. CO_2 .

HEALTH HAZARD INFORMATION:
TIME WEIGHTED PERMISSIBLE EXPOSURE 100 PPM.

ROUTES OF EXPOSURE:
INHALATION IRRITATING TO MUCOUS MEMBRANES.

PRACTICALLY NONTOXIC BY SKIN ABSORPTION. MODERATE IRRITATION WITH PROLONGED OR REPEATED CONTACT.

REACTIVITY DATA:
STABLE

INCOMPATIBLE MATERIALS:
INCOMPATIBLE WITH STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE AND ASPHYXIANTS.

POLYMERIZATION: WILL NOT OCCUR.

VENTILATION:
TO BREATHING RISK OR VAPORS. USE ONLY WITH ADEQUATE VENTILATION. VENTILATE AS NEEDED TO MAINTAIN COMPLIANCE WITH WORK SPACE ENVIRONMENTAL EXPOSURE LIMITS.

PERSONAL PROTECTIVE EQUIPMENT:
PLASTIC PROOF CHEMICAL SAFETY GOGGLES. PROTECTIVE IMPERVIOUS GLOVES.

CONCENTRATION IN AIR DETERMINES PROTECTION REQUIRED. NIOSH APPROVAL REQUIRED ON ANY RESPIRATORY EQUIPMENT USED.

ALIPHATIC PETROLEUM DISTILLATES:
EXTINGUISHING MEDIA:
REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL.

FIREFIGHTING PROCEDURES:
WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE WHEN FIGHTING FIRES.

SPECIAL FIRE & EXPLOSIVE HAZARDS:

VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE CAN IGNITE EXPLOSIVELY.

NAPA CODES: HEALTH -0, FLAMMABILITY -2, REACTIVITY -0.

HEALTH HAZARD DA' :

EYES: CAN CAUSE SERVRE IRRITATION, REDNESS, TEARING, BLURRED VISION.

SKIN:

PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION, DEFATTING DERMATITIS.

BREATHING:

EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, POSSIBLE UNCONSCIOUSNESS, AND EVEN ASPHYXIATION.

SWALLOWING:

CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA. ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES: FLUSH WIT LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED: DO NOT INDUCE VOMITING, KEEP PERSON WARM, QUIET, AND GET MEDICAL ATTENTION. ASPIRATION OF MATERIAL INTO THE LUNGS DUE TO VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

IF BREATHED: IF AFFECTED REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ANTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

PRIMARY ROUTES OF ENTRY:
INHALATION, SKIN CONTACT.

REACTIVITY DATA:
HAZARDOUS POLYMERIZATION CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

PAINT PRODUCT CONTAINING- DIMETHYLAMINOETHANOL, N-BUTYL ALCOHOL, BUTYL CARBITOL, BUTYL CELLOSOLVE

HEALTH HAZARD DATA:
THRESHOLD LIMIT VALUE: NOT REQUIRED FOR MIXTURE.

EFFECTS OF OVEREXPOSURE:
IMMEDIATE EFFECTS (ACUTE):
CAN BE ABSORBED THROUGH THE SKIN. HARMFUL IF HANDLES. MAY AFFECT THE BRAIN, NERVOUS SYSTEM OR RESPIRATORY SYSTEM, CAUSING DIZZINESS, HEADACHE, NAUSEA OR RESPIRATORY IRRITATION. OVEREXPOSURE TO INGREDIENTS IN THIS PRODUCT MAY CAUSE NOSE AND THROAT IRRITATION, EYE IRRITATION, EYE BURNS, SKIN IRRITATION, RESPIRATORY TRACT IRRITATION, ASTHMATIC ATTACK AND/OR REACTION, RESPIRATORY-SENSITIZATION.

DELAYED EFFECTS (CHRONIC):
CONTAINS GLYCOL ETHER WHICH HAS BEEN SHOWN TO CAUSE BLOOD EFFECTS DAMAGE IN LABORATORY ANIMALS.

NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL. CONTAINS INGREDIENTS WHICH MAY CAUSE SKIN BURNS, LIVER DAMAGE, KIDNEY DAMAGE, BLOOD DAMAGE, HEARING LOSS.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE - ANY RESPIRATORY OR SKIN CONDITION.

EMERGENCY AND FIRST AID PROCEDURES:
EYE CONTACT: FLUSH EYE IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER.

CLOTHING: MOVE CONTAMINATED CLOTHING AND SHOES. WASH CLOTHING BEFORE REUSE. DESTROY CONTAMINATED SHOES.

INHALATION: IF INHALED, REMOVE TO FRESH IR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION IMMEDIATELY.

SWALLOWING: IF SWALLOWED, GET MEDICAL ATTENTION IMMEDIATELY.

REACTIVITY DATA:
THIS PRODUCT IS STABLE

CONDITIONS TO AVOID: NONE

INCOMPATIBILITY: NA

HAZARDOUS POLYMERIZATION: NONE

SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAMES. KEEP CONTAINER CLOSED NOT IN USE. DO NOT STORE ABOVE 120 DEG F. BASED ON THE PRODUCT FLASH POINT AND VAPOR PRESSURE SUITABLE STORAGE SHOULD BE PROVIDED IN ACCORDANCE WITH OSHA REGULATION 1910.106. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUE, INCLUDING FLAMMABLE OR EXPLOSIVE VAPORS. DO NOT CUT, PUNCTURE OR WELD ON OR NEAR CONTAINER. ALL LABEL WARNINGS MUST BE OBSERVED UNTIL THE CONTAINER HAS BEEN CLEANED OR RECONDITIONED.

HI SOLIDS "C" ENAMEL CONTAINING ALIPHATIC HYDROCARBON, AND AROMATIC HYDROCARBON

UNUSUAL FIRE AND EXPLOSIVE HAZARDS:
KEEP CONTAINERS TIGHTLY CLOSED. AVOID SOURCES OF IGNITION. GROUND ALL TRANSFER EQUIPMENT. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

SPECIAL FIRE FIGHTING PROCEDURES:
WATER SPRAY (FOG NOZZLES) MAY BE USED FOR COOLING CONTAINERS.

HEALTH HAZARD DATA:
THRESHOLD LIMIT VALVE:
276 ppm (WEIGHTED AVERAGE OF SOLVENT MIXTURE)

EFFECTS OF OVEREXPOSURE:
SEVEER EYE IRRITATION. DRYING OF SKIN. EXCESS INHALATION CAUSES HEADACHE, DIZZINESS, NAUSEA.

EMERGENCY AND FIRST AID PROCEDURES:

IN CASE OF SKIN CONTACT, FLUSH WITH PLENTY OF WATER; FOR EYES, IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES AND GET MEDICAL ATTENTION. IF EXPOSED TO HIGH CONCENTRATION OF VAPOR, REMOVE PATIENTS TO FRESH AIR. IF SWALLOWED, CALL A PHYSICIAN IMMEDIATELY. DO NOT INDUCE VOMITING.

REACTIVITY DATA:

STABILITY: STABLE. HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

EMERGENCY TELEPHONE NUMBERS

ENVIRONMENTAL HOTLINES

SOLID WASTE AND HAZARDOUS WASTE (RCRA) AND SUPERFUND.....(800) 424-9346

CHEMICAL EMERGENCY PREPAREDNESS PROGRAM, INCLUDING COMMUNITY RIGHT-TO-KNOW, SECTIONS 311-313 OF TITLE III (PROVIDES INFORMATION ON REPORTING OF HAZARDOUS SUBSTANCES FOR COMMUNITY PLANNING PURPOSES).....(800) 535-0202

TOXIC SUBSTANCES CONTROL ACT (TSCA) & ASBESTOS TECHNICAL INFORMATION & REFERRAL....(202) 554-1404

SAFE DRINKING WATER (PROVIDES INFORMATION ON PUBLIC WATER SUPPLY PROGRAM, POLICY, TECHNICAL AND REGULATORY ITEMS).....(800) 426-4791

NATIONAL PESTICIDE TELECOMMUNICATIONS NETWORK (PROVIDE INFORMATION ABOUT PESTICIDES-SPILL HANDLING, DISPOSAL CLEAN-UP AND HEALTH EFFECTS).....(800) 858-7378

NATIONAL RESPONSE CENTER (OPERATED BY THE U.S. COAST GUARD FOR REPORTING OIL SPILLS AND HAZARDOUS SUBSTANCE RELEASES).....(800) 424-8802

U.S. EPA.....(800) 572-2515

OHIO EPA.....(800) 282-9378

CHEMTREC.....(800) 429-9300

U.S. COAST GUARD C.H.R.I.S.....(800) 424-8804

CENTER FOR DISEASE CONTROL.....(404) 633-5313

POISON CONTROL CENTER.....(216) 231-4455

BUREAU OF EXPLOSIVES.....(202) 835-9500

NUCLEAR REGULATORY COMMISSION.....(301) 492-8111

EMERGENCY TELEPHONE NUMBERS

EMERGENCY

COMPANY SAFETY DEPARTMENT: N/A

TELEPHONE NUMBER: N/A EXT.: N/A

CONTACT: N/A

LOCAL CITY EMERGENCY CONTACTS: N/A

FIRE DEPARTMENT NUMBER: 419-592-0441

AMBULANCE NUMBER: 911

HOSPITAL NAME: HENRY COUNTY HOSPITAL

HOSPITAL ADDRESS: 11-000 STATE RT. 424
NAPOLEON, OHIO 43545

HOSPITAL TELEPHONE NUMBER: 419-592-4015

DIRECTIONS TO THE HOSPITAL: GO EAST ON ST. RT. 110. GO OVER THE OVERPASS TAKE A RIGHT ONTO RT 6. TAKE RT. 6 TO ST. RT. 424. TAKE A RIGHT ONTO ST. RT. 424. THE HOSPITAL IS UP A LITTLE WAYS ON THE RIGHT HAND SIDE.

SIGNATURE:

[signature] 6/8/95 4:00PM
HEALTH & SAFETY OFFICER DATE TIME

[signature] 6-8-95 4:35 pm
ON SITE SUPERVISOR DATE TIME

CLOSURE FORM (PART III)

SOIL DISPOSAL/TREATMENT CHECKLIST (FOR CLOSURES)

REFER TO SOIL STOCKPILE GUIDANCE DOCUMENT APPENDIX F (PAGES 50-59) BEFORE FILLING OUT THIS CHECKLIST.

PAGE NO.	
27	DATE STOCKPILE WAS GENERATED
27	DESCRIPTION AND PRESERVATION OF STOCKPILE (E.G. BERMED, COVERED, ETC.)
27	ESTIMATED STOCKPILE VOLUME IN CUBIC YARDS
20,24,5	SAMPLING AND FIELD SCREENING PROCEDURES, DATES, AND TIMES (I.E. CHAIN OF CUSTODY, ETC.)
38	LAB RESULTS IN TABLE FORMAT
E	LABORATORY DATA SHEETS
N/A	COPY OF THE SOIL REMEDIATION PLAN WHICH INCLUDES:
	1. A DESCRIPTION OF THE REMEDIATION TECHNIQUES
	2. COPIES OF ANY PERMITS REQUIRED FOR TREATMENT
	3. A COPY OF THE LOG KEPT ON SITE BY THE OWNER DURING STOCKPILE TREATMENT
35	FINAL DISPOSITION OF STOCKPILE OR OTHER DOCUMENTATION (RECEIPTS, MAPS, ETC.)

- CERTIFICATION STATEMENT -

I CERTIFY THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS FORM AND ALL ATTACHED DOCUMENTS, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE SUBMITTED INFORMATION IS TRUE, ACCURATE, AND COMPLETE.

OWNER/OPERATOR'S NAME (TYPED OR PRINTED)

OWNER/OPERATOR'S SIGNATURE

DATE

TO: Jim Stern
FROM: Jon Scott
SUBJECT: Waste Water Disposal

Date: July 6, 1995

The ground water (20,000 gallons) from the Underground Storage Tanks was sent to our waste water treatment plant. I authorized Great Lakes Response, Inc. to pump the water to our sewer that flows to our waste water treatment plant.

Sincerely,

Jon Scott
Environmental Engineer

Midwest Analytical Services, Inc.
"Where technology comes for answers"
Metropolitan Center for High Technology
2727 Bo[illegible] Avenue
Detroit, Michigan 48201

Phone: 1-800-801-4MAS (BST only)
: (313) 964-3[illegible]
Fax No: (313) 964-3[illegible]

Date : 14-Jun-95

Client : CUSTOMER SERVICE
: COUSINS WASTE CONTROL CORPORATION

Mac# : 50606028

PROJECT: : CAMPBELL SOUP NAPOLEON,OH

Sample I.D. : 10463 GROUND WATER

The above mentioned project has been completed in accordance with the quality control and quality assurance criteria specified by the American Association of Laboratory Accreditation/SW 846/MDNR/WDNR and EPA references from 40 CFR part 136 guidelines.

For your convenience the following legend applies to all the following data sheets.
1. Reports shall not be reproduced, except in full, without written approval of Midwest Analytical Services, Inc.
2. ND/Detected, N/Detected applicable
3. Results relate only to the items tested.
4. mg/l, mg/kg, mg/kg(dry weight) equal ppm(parts per million)
µg/l, µg/kg, µg/kg(dry weight) equal ppb(parts per billion)

If you have any questions regarding this project please feel free to contact me at 1-800-801-4MAS or 1-313-964-3680.

Thanking You,

Sincerely,

Krystyna Czyna

Krystyna Czyna
Lab. Quality Manager

Midwest Analytical Services, Inc.
"Your Analytical Needs Are Answered"
Incorporating Center for Hazardous Technology
1727 Industrial Avenue
Detroit, Michigan 48201
Phone: 1-800-881-MAS (627) or (313) 554-2900
Fax No: (313) 554-2910

RE: DL3 TEST REPORT MAS #: 5506606028
MATRIX: WP2

CUSTOMER SERVICE
COLUMBUS WASTE CONTROL CORPORATION
1961 S. MAIN [illegible]
TOLEDO, OH 43611

DATE COLLECTED: 14-Jun-95
P.O. #: M7001

PROJECT: CASTROL SOUP NAPOLEON01
SAMPLE DESCRIPTION: 55 GALLON WATER DRUM
PHYSICAL DESCRIPTION: LIQUID

METHOD OF ANALYSIS: [illegible]
DATE ANALYZED: 6/15/95

PARAMETER	RESULTS IN PPM	LIMIT OF DETECTION (LOD) ppm
VOLATILE ORGANICS BY GC/MS		
[illegible]	ND	10
[illegible]	ND	10
[illegible]	ND	10

Midwest Analytical Services, Inc.
"When industry wants for winners"
Metropolitan Centre for High Technology
[illegible]
Detroit, Michigan [illegible]

Phone: [illegible]
[illegible]
Fax No: [illegible]

TEST REPORT

MAS #50606028

[illegible]
PAGE 1 OF 2

[illegible]

PROJECT: CAMPBELL SOUP NAPOLEON
SAMPLE IDENTIFICATION: [illegible] GROUND WATER [illegible]
PHYSICAL DESCRIPTION: LIQUID

METHOD: [illegible]
DATE ANALYZED: [illegible]

PARAMETER	LAB TECH: [illegible] SAMPLE RESULT ug/l	SAMPLE DETECTION LIMIT ug/l
[illegible]		
[illegible]	N/D	1.0
[illegible]	N/D	1.0
[illegible]	N/D	1.0
[illegible]	N/D	1.0
[illegible]	N/D	1.0

[illegible]

[illegible]
Lab. Quality Manager

JUN 15 '95 16:15 TOTAL P.04
PAGE.004

** TOTAL PAGE.005 **

SFM SITE FEATURE SCORING SYSTEM (SFSS) CHART

(USE "SFSS GUIDELINES" TO COMPLETE THIS CHART)

I. OWNERSHIP OF TANKS	II. LOCATION OF TANKS
OWNER NO. 666 CAMPBELL SOUP CO. P.O. BOX 311 NAPOLEON, OHIO 43545 ATTN: DAVID FOLEY	INCIDENT NO. 3550557 FACILITY NO. 350059 CAMPBELL SOUP CO. EAST MAUMEE AVE. NAPOLEON, OHIO 43545

Site Features	COLUMN A		COLUMN B		COLUMN C		COLUMN D	
	Score 20	Enter Score	Score 15	Enter Score	Score 10	Enter Score	Score 5	Enter Score
1. Distance of UST system from closest potable-water supply source currently in use is:	> 1000 ft.	50	300-1000 ft		< 300 ft.		Inside of designated sensitive area	
2. Depth to groundwater is:	> 50 ft		31-50 ft.		15-30 ft. or unknown		< 15 ft.	5
3. Predominant soil type of substratum is:	Clay or shale	50	Silt or clayey sands or fine sandstone		Silty sand or fine sand, unknown, or sandstone		Clean sand gravel, or conglomerate	
4. Natural and/or man-made conduits or receptors - see Worksheet Below	< 8	20	8-10		11-13		> 13	
Subtotals:								5
							TOTAL SCORE (SUBTOTALS)	5

SITE FEATURE 4 WORKSHEET

Elements or subsurface foundations within 100 feet of UST system	4 points	
Storm sewer within 50 feet of UST system	4 points	—
Sanitary sewer within 50 feet of UST system	4 points	—
Septic system leach field within 50 feet of UST system	2 points	—
Water line main within 50 feet of UST system	1 point	—
Natural Gas line main within 50 feet of UST system	1 point	—
Bedrock area prone to dissolution along joints of fractures within 100 feet of UST system	1 point	—
Faults or known fractures within 100 feet of UST system	1 point	—
Buried telephone/television cable main within 50 feet of UST system	1 point	—
Buried electrical cable main within 50 feet of UST system	1 point	—
	TOTAL POINTS	5

SSFS ACTION LEVELS (PPM)

CONSTITUENT	CATEGORY 1	CATEGORY 2	CATEGORY 3	CATEGORY 4
TOTAL SCORE	< 31	31-50	51-70	> 71
Soil BTEX	.005/4/6/28	.170/7/10/47	.335/9/14/67	.500/12/18/85
Groundwater BTEX	.005/1/.700/10	.005/1/.700/10	.005/1/.700/10	.005/1/.700/10
Soil TPH (Gasoline)	105	300	450	600
Soil TPH (Others)	380	542	904	1156

(SUBMIT TO SFM AS APPENDIX OR ADDENDUM TO CLOSURE REPORT)

I. OWNERSHIP OF TANKS	II. LOCATION OF TANKS
OWNER NO. 686 CAMPBELL SOUP CO. P.O. BOX 311 NAPOLEON, OHIO 43545 ATTN; DAVID FOLEY	INCIDENT NO. 3550557 FACILITY NO 350059 CAMPBELL SOUP CO. EAST MAUMEE AVE. NAPOLEON, OHIO 43545

SFSS WRITTEN REPORT MUST INCLUDE THE FOLLOWING:

SFM USE	PAGE NO.		
___	5 to 6	A.	The completed "SFSS Report".
___	5 to 6	B.	Written report which must include justification for site features 1 through 4 which include the following:
		1.	Distance of UST system from closest potable-water supply source currently in use within 1/4 mile.
		2.	Average depth to groundwater.
		3.	Predominant soil type of substratum in UST excavation.
		4.	Natural and/or man-made conduits/receptors near closed UST system.
___	5 to 6	C.	Soil and/or groundwater analytical sample results in table format from closure report.

NOTE: DEFICIENT "SFSS REPORTS AND CHARTS" SUBMITTED TO OUR OFFICE WILL BE RETURNED TO THE OWNER FOR COMPLETION. SEND THE "SFSS REPORT AND CHART" TO THE ADDRESS AS INDICATED ON THE ENCLOSED COVER LETTER.

Preparer Name: [illegible] Signature: [signature] Date: 7/14/95

Owner/Operator: [illegible] Signature: [signature] Date: 7/25/95

BUREAU USE ONLY

Reviewed By: _____ Signature: _____ Date: _____

Great Lakes Response, Incorporated

Divisions: LAKELAND CONTRACTORS - LEAR CONSTRUCTION

38316 Airport Parkway • Willoughby, Ohio 44094

(216) 953-0706 • FAX: (216) 942-7260

CALIBRATION PROCEDURES FOR BUSTR REQUIRED ANALYTICAL METHODS

8000 Series (solid waste) and 600 Series (water) Methods: Method 8020, Method 8015, Method 602, Method 8100, Method 610, Method 8240, Method 624:

Initial QC procedure is the preparation and injection of a lab blank in order to determine overall system cleanliness before we begin. If contamination is detected in the blank systems are cleaned or replaced until the source of contamination is identified and eliminated. Once the system and all materials are determined clean and functioning properly, the instrument (Gas Chromatograph with either PID, FID, or MS detection system) is calibrated for the specific analytes using a five point calibration method which determines the linear dynamic range of the instrument for those analytes.

Daily calibration checks are performed and must agree within 15% of initial instrument calibration. If daily calibration is outside of this control limit, full recalibration is performed.

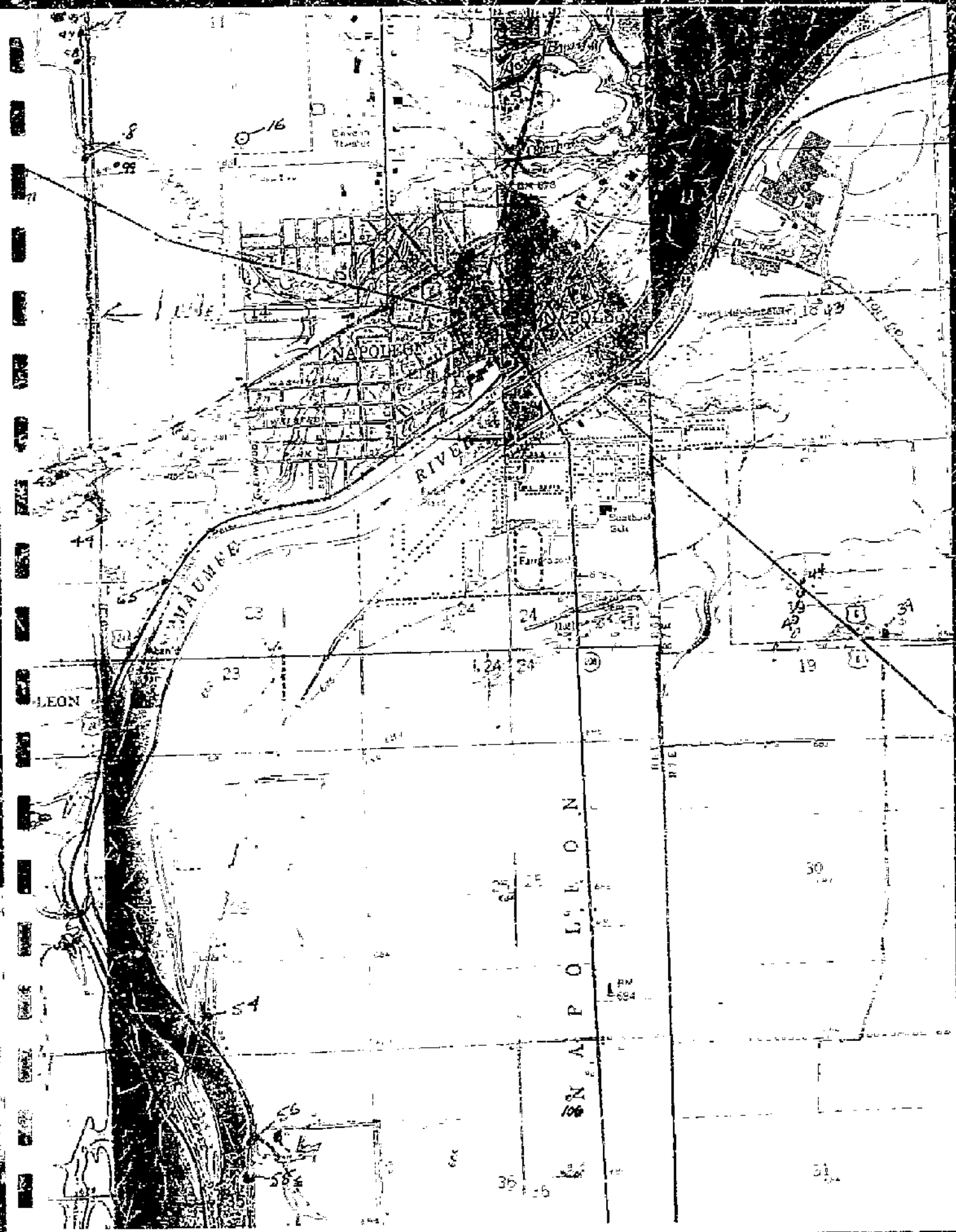
A Quality Control check sample is analyzed at least once every 20 samples. The QC check is a solution made up from a separate source of standards from that which is used to calibrate the instrument.

For each day in which analyses are performed, and for every matrix analyzed that day, at least one of each matrix will be spiked with all of the analytes of interest. The spiked samples are then analyzed, recoveries calculated and used in the method calibration.

Method 418.1:

As described above, the system and all materials must be determined free of contamination through laboratory blanks analyses. The calibration is performed through a five point calibration technique, which defines the dynamic range of the instrument.

Each day that the analysis is performed, a calibration check is run to verify agreement with the initial calibration within plus or minus 15%.


NAPOLEON
RIVER
MAUMEE
LEON
NAPOLEON
Southland Sch
Fairgrounds
23
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65
106

ORIGINAL

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1500 Dublin Road
Columbus, Ohio

No. 205113

County HENRY Township NAPOLEON Section of Township Sec 11

Owner MARTIN DIETRICK Address R4 NAPOLEON, OHIO

Location of property ½ mile N. of West corp. of Napoleon, O.

CONSTRUCTION DETAILS

Casing diameter 6 O.D. Length of casing 29'

Type of screen RECORDS Length of screen 5

Type of pump S.W.

Capacity of pump 250 G.P.H.

Depth of pump setting 30'

Date of completion Nov. 11, 57

BAILING OR PUMPING TEST

Pumping rate 2½ G.P.M. Duration of test 1 hrs.

Drawdown 17 ft. Date Nov. 11, 57

Developed capacity 186 G.P.H.

Static level—depth to water 6 ft.

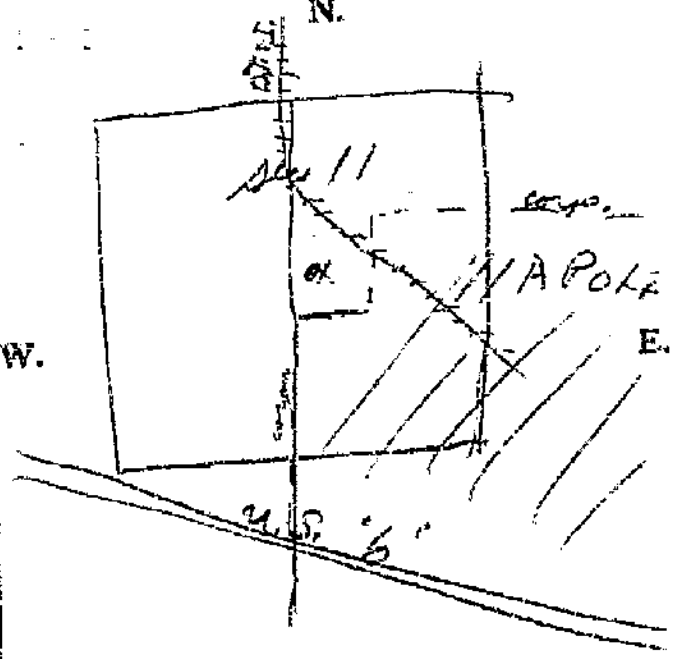
Pump installed by owner

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Top sand	0 Feet	3 Ft.
Yellow clay	3	11
Blue clay	11	29
Coarse sand	29	33

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Byron L. Shaffer

Address R#2 Wauseon, O.

Date Nov. 11, 57

Signed Byron L. Shaffer

LOCATED

ORIGINAL

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

PLEASE USE PENCIL OR TYPEWRITER. DO NOT USE INK.

No. 262128

County HENRY Township NAPOLEON Section of Township 10

Owner HERMAN DIETRICK Address NAPOLEON, O.

Location of property On Twp Rd '15', 1/3 MILE NORTH of U.S. '6'

CONSTRUCTION DETAILS

Casing diameter 4 Length of casing 48

Type of screen — Length of screen —

Type of pump D. W. Sub

Capacity of pump 7 G.P.M.

Depth of pump setting 42'

Date of completion Oct 61

BAILING OR PUMPING TEST

Pumping rate 4 G.P.M. Duration of test 1/2 hrs.

Drawdown 20 ft. Date Oct 1961

Developed capacity 7 G.P.M.

Static level—depth to water 15 ft.

Pump installed by Driller

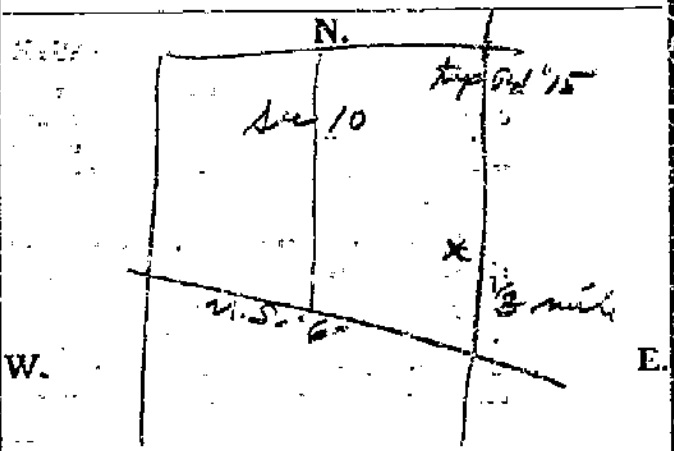
WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
yellow clay	0 Feet	10 Ft.
Blue clay	10	42
Hard Pan	42	48
Black O. Shale	48	52
Gray O. Shale	58	60

water at 57'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Byron Shaffer

Address R#2 Wauseon, O.

Date Oct 12, 1961

Signed Byron L. Shaffer

LOCATED

ORIGINAL

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No. 148199

County Henry Township Napoleon Section of Township or Lot Number 23

Owner Bruce Gray Address Napoleon, Ohio

Location of property Edge of Napoleon, Ohio by Wabash R.R.

CONSTRUCTION DETAILS

Casing diameter 4" Length of casing 57' 7"

Type of screen none Length of screen

Type of pump none

Capacity of pump

Depth of pump setting

PUMPING TEST

Pumping rate 1/2 G.P.M. Duration of test 8 hr

Drawdown 30 ft. Date 9/25/57

Developed capacity ½ G.P.M.

Static level—depth to water 35'

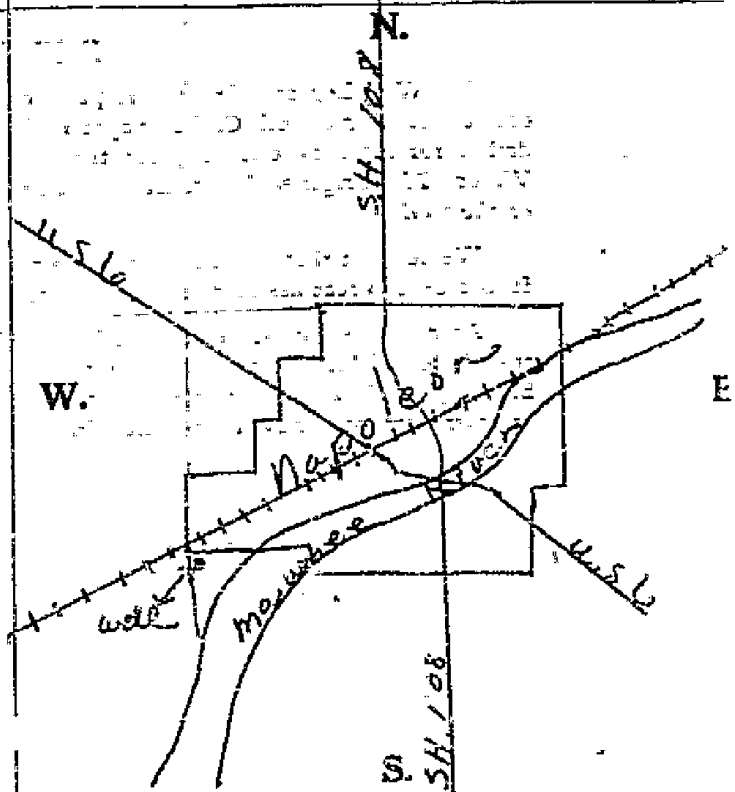
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
~~1' to~~ Clay and Hd. pan	1	58
Black rock	58	75

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm W. B. Frey & Son

Address Pattisville, Ohio

Date Oct. 18, 1957

Signed Maurice Frey

mail LOCATED

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No. 115443

County Henry Township Napoleon Section of Township or Lot Number 22

Owner Virgil Fagan Address R#4 Napoleon O

Location of property On County Road 01, ½ mi N of Rt 24

CONSTRUCTION DETAILS

Casing diameter 4 Length of casing 59'

Type of screen Length of screen

Type of pump Hand

Capacity of pump 300 GPH

Depth of pump setting 70

PUMPING TEST

BOILER CAPACITY - 74 P.M

Pumping rate 3 G.P.M. Duration of test 2 hrs.

Drawdown 35 ft. Date 2-3-55

Developed capacity 180 GPH

Static level—depth to water 37 ft.

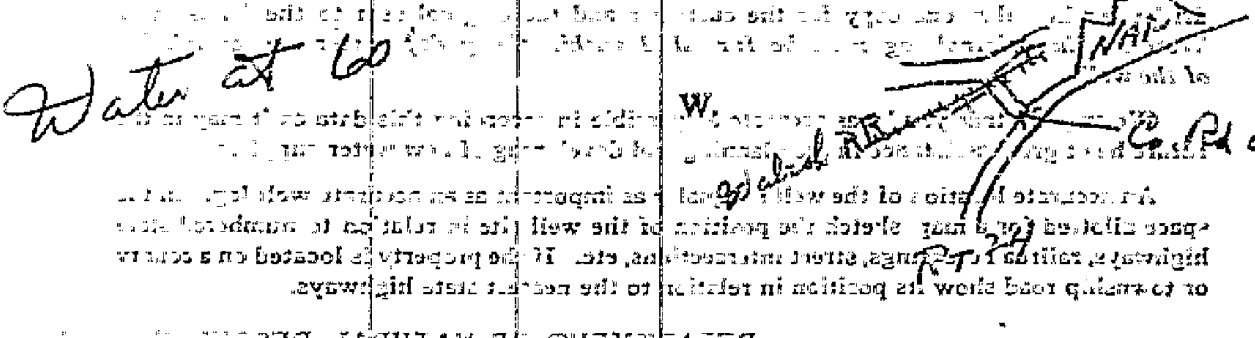
Pump installed by Miller

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sand & Gravel	0 Feet	20 Ft.
Clay	20	42
Sand & gravel	42	58
Slate	58	75
Water at 60		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Jules W Pletz

Address Napoleon, O

Date 2-5-55

Signed Jules W Pletz

OWNER

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

Nº 1-2482

County Henry Township Napoleon ~~Section of Township or Lot Number~~ 2

Owner W. Jacomet Address Rt 4 Napoleon, O

Location of property On Co Rd. 01 ½ mi N of Rt 24

CONSTRUCTION DETAILS		PUMPING TEST	
Casing diameter	4¼" Length of casing 55	Pumping rate	6 G.P.M. Duration of test 1 hrs
Type of screen	— Length of screen —	Drawdown	5 ft. Date 9-20-56
Type of pump	Windmill	Developed capacity	300 GPH
Capacity of pump	300 GPH	Static level—depth to water	32 ft
Depth of pump setting	48'	Pump installed by	driller

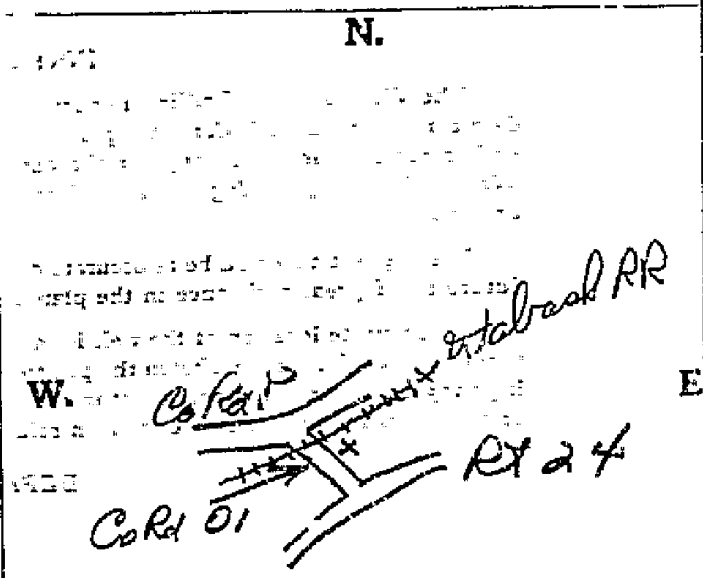
WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sand	0 Feet	18 Ft.
Clay	18	38
Sand	38	55
Bl Shale	55	59

Water at 59'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

RECEIVED
5468 OCT 1956

Drilling Firm Jules H. Blitz

Address Napoleon, O

Date 9-20-56

Signed Jules Blitz

LOCATED

ORIGINAL

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

Nº 148159

County Henry Township Napoleon Section of Township or Lot Number 15

Owner Alvin Wachtman Address Napoleon O.

Location of property West of Napoleon on U.S. #24

CONSTRUCTION DETAILS

Casing diameter 3 Length of casing 12

Type of screen Cook #20 Length of screen 3

Type of pump none

Capacity of pump

Depth of pump setting

PUMPING TEST

Pumping rate G.P.M. Duration of test hr

Drawdown ft. Date 12-30-55

Developed capacity

Static level—depth to water none

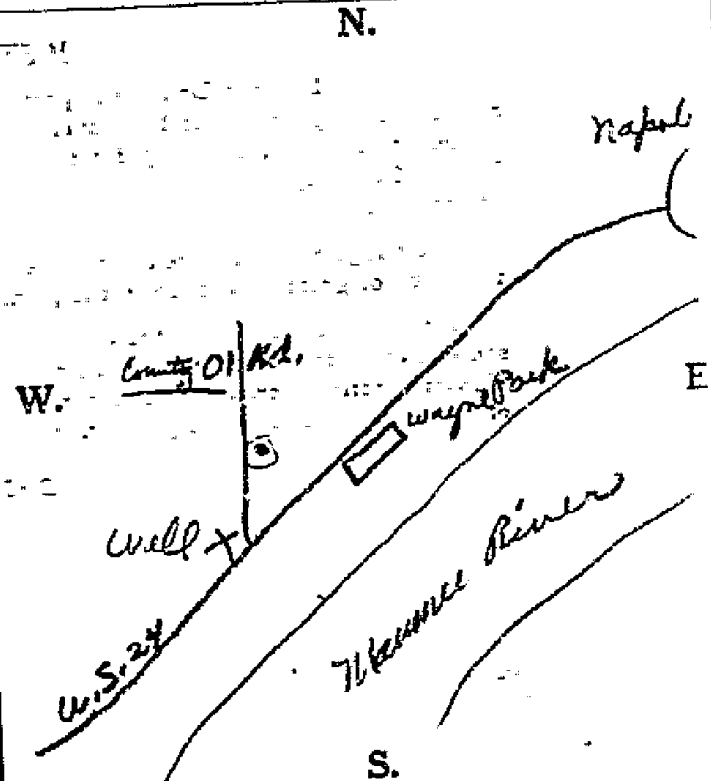
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
Clay & topsoil 14'		
Clay 14 to 17		
Sand 18'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

RECEIVED
13 FEB 956
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER

Drilling Firm J. B. Frey & Sons

Address Pittsville O

Date 2-3-56

Signed Maurice Frey

LOCATED

ORIGINAL

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

PLEASE USE PENCIL OR TYPEWRITER. DO NOT USE INK.

No. 250037

County Henry Township Harrison Section of Township 19

Owner Clifford Remmund Address Napoleon Ohio

Location of property 1½ South east on US No 6 Napoleon

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 70

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping rate 20 G.P.M. Duration of test 2 hrs.

Drawdown 42 ft. Date July 21

Developed capacity

Static level—depth to water 22 ft.

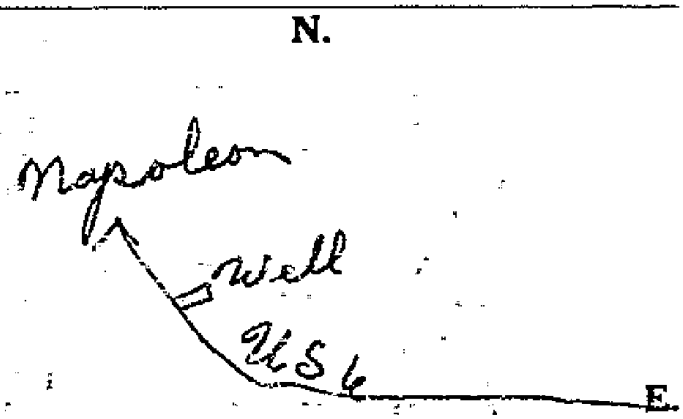
Pump installed by Plumber

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sand -	0 Feet	16 Ft.
Clay	16	76
Shale	76	74

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Williams & Sterling Date July 21 40

Address Bowling Green Signed Roy Sterling

LOCATED

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 152462

County Henry Township Harrison Section of Township — or Lot Number 19 37

Owner Teapke Estate Address Clipper Ave, Napoleon, O

Location of property 1/4 mi E of Napoleon City Limits on US 6

CONSTRUCTION DETAILS

Casing diameter 5 Length of casing 42

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

PUMPING TEST

Boiler Cap - 12 GPM

Pumping rate 10 G.P.M. Duration of test 1 hrs

Drawdown 10 ft. Date 1-5-56

Developed capacity 600 GPH

Static level—depth to water 20 ft

Pump installed by

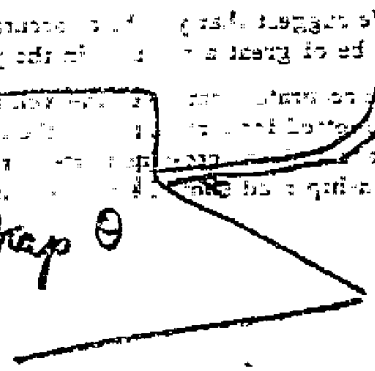
WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sand	0 Feet	7 Ft.
Quicksand	7	25
Sand & gravel	25	39

Water at 39'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



S.

See reverse side for instructions

RECEIVED
DIV. OF WATER

Drilling Julius Blatz

Address Napoleon, O

Date 1-6-56

Signed Julius Blatz

LOCATED

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

Nº 309451

County Henry Township ~~Napoleon~~ Harrison Section of Township 31

Owner Jim Westhoven Address Napoleon

Location of property 1 mile and 1/4 north east of Napoleon

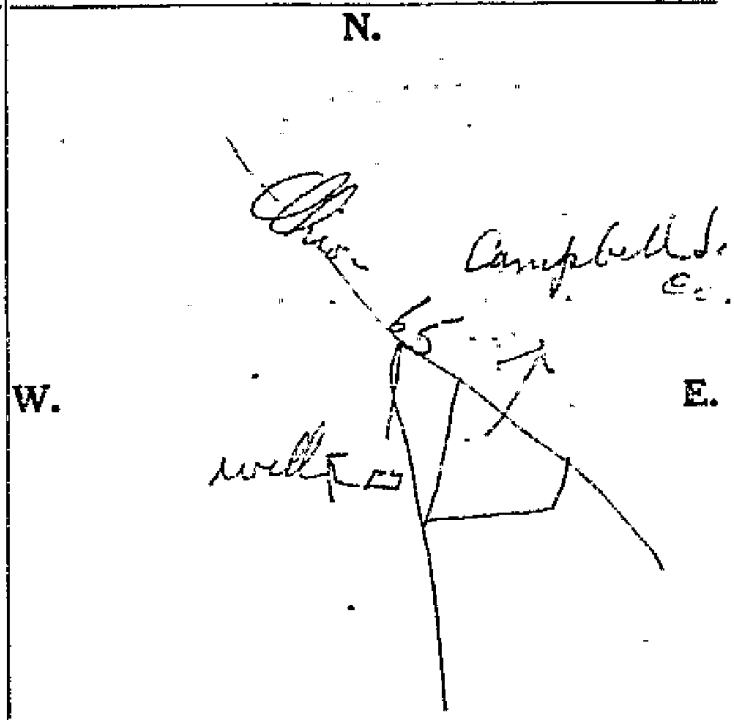
CONSTRUCTION DETAILS	BAILING OR PUMPING TEST
Casing diameter 4 1/4 Length of casing 53	Pumping Rate 8 G.P.M. Duration of test 1 hrs.
Type of screen Length of screen	Drawdown 85 ft. Date Feb. 6-64
Type of pump	Static level-depth to water 30 ft.
Capacity of pump	Quality (clear, cloudy, taste, odor) odor
Depth of pump setting	
Date of completion	Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sand	0 Feet	16 Ft.
Clay	16	41
Hard Pan	41	53
Shale	53	123

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Vollmar & Sterling Date Feb. 6-64

Address Bowling Green Signed Kenneth Vollmar

43

ORIGINAL

WELL LOG AND DRILLING REPORT

PLEASE USE PENCIL OR TYPEWRITER
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212

No 348054

County Henry Township Harrison Section of Township 19

Owner Joe Noblit Address Napoleon R.1

Location of property On US 6 1 mile South east Napoleon

CONSTRUCTION DETAILS

Casing diameter 4½ Length of casing 90

Type of screen Length of screen

Type of pump Deep well

Capacity of pump

Depth of pump setting Deep well 70'

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 25 G.P.M. Duration of test 1 hrs.

Drawdown 70 ft. Date April 29, 66

Static level-depth to water ft.

Quality (clear, cloudy, taste, odor) Clear

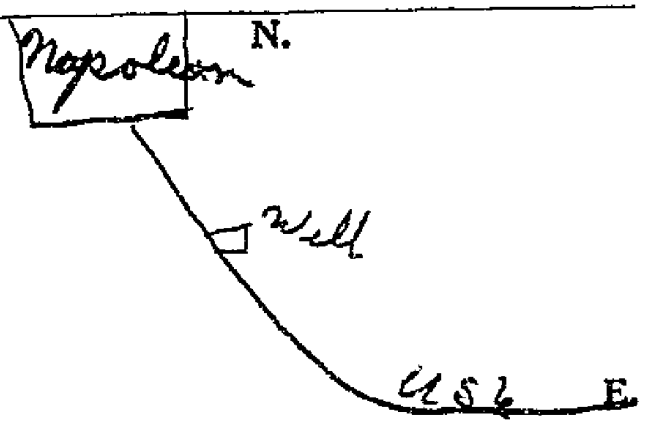
Pump installed by P Sturdevan

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sand	0 Feet	30 Ft.
clay	30	40
gravel	40	80
clay	80	90
black shale	90	93

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Vollmar & Sterling Date April 29, 66

Address Bowling Green Ohio Signed Ray L Sterling

*If additional space is needed to complete well log, use next consecutive numbered form.

44

STATE OF OHIO
DEPARTMENT OF COMMERCE – DIVISION OF STATE FIRE MARSHAL
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
8895 EAST MAIN STREET, P.O. BOX 687
REYNOLDSBURG, OH 43068-0687

PERMIT FOR UNDERGROUND STORAGE TANKS

PERMIT NO.: 14069
ISSUE DATE: 5/11/95

I. OWNERSHIP OF TANKS	II. LOCATION OF TANKS
OWNER NO. 686 CAMPBELL SOUP COMPANY PO BX 311 NAPOLEON, OH 43545 ATTN: DAVID FOLEY NOTE: AS A CONDITION OF THIS PERMIT, A BUSTR	INCIDENT NO. [redacted] FACILITY NO. 350059 CAMPBELL SOUP COMPANY PO BX 311 NAPOLEON, OH 43545 INSPECTOR MUST BE ON THE JOB SITE.
III. CONTRACTOR	**IV. LOCAL FIRE DEPARTMENT**
GREAT LAKES RESPONSE	NAPOLEON FIRE DEPT

V. PERMIT ISSUED FOR:
SEE BELOW – (NOTE: OWNER'S COPY OF PERMIT MUST BE AVAILABLE ON JOB SITE)

VI. CONDITIONS (NOTE: PERMIT EXPIRES SIX (6) MONTHS FROM DATE OF ISSUE. FEE IS NON-REFUNDABLE)

REMOVALS/ABANDONMENTS:
[101] TANK(S): N/A [102] PIPING: N/A [103] TOTAL SYSTEMS: (3)

INSTALLATIONS:
[201] TANK(S): N/A [202] PIPING: N/A [203] TOTAL SYSTEMS: N/A

REPLACEMENT:
[301] TANK(S): N/A [302] PIPING: N/A [303] TOTAL SYSTEMS: N/A

REPAIRS:
[401] TANK(S): N/A [402] PIPING: N/A

UPGRADE:
[501] TANK(S): N/A [502] PIPING: N/A [503] TOTAL: N/A

TEMPORARY CLOSURE:
[601] SYSTEMS: N/A

CHANGE IN STATUS:
[701] SYSTEMS N/A

BUREAU USE ONLY

CERTIFIED INSTALLER: _____ ID NO.: _____

INSPECTOR'S SIGNATURE: _____ DATE: _____

COM 5208 (08/92) FORMS DISTRIBUTION: WHITE COPY–TANK OWNER; CANARY AND P[illegible]IES–BUREAU

DIVISION OF STATE FIRE MARSHAL - BUSTR
8895 EAST MAIN STREET, P.O. BOX 687
REYNOLDSBURG, OHIO 43068-0687

APPLICATION FOR UNDERGROUND STORAGE TANK PERMIT

OWNERSHIP OF TANKS — OWNER NO: 486	LOCATION OF TANKS — FACILITY NO. 350059
OWNER/OPERATOR NAME: CAMPBELL SOUP COMPANY	FACILITY NAME: CAMPBELL SOUP COMPANY
ADDRESS: P.O. BOX 311	ADDRESS: P.O. BOX 311
CITY: NAPOLEON STATE: OHIO ZIP CODE: 43545	CITY: NAPOLEON STATE: OHIO ZIP CODE: 43545
ATTN: (CONTACT PERSON): DAVID FOLEY AREA CODE-PHONE: 419-599-6763	AREA CODE-PHONE: 419-599-6763
GEOGRAPHIC LOCATION: Range_____ Township_____ Section_____ Tract_____	Sensitive Area? Yes____ No X
CONTRACTOR INFORMATION	LOCAL FIRE DEPARTMENT INFORMATION
CONTRACTOR'S NAME: GREAT LAKES RESPONSE	FIRE DEPARTMENT NAME: NAPOLEON FIRE DEPARTMENT
CONTACT PERSON: SCOTT FERRY AREA CODE-PHONE: 216-953-0706	ADDRESS: P.O. BOX 151
ADDRESS: 38316 AIRPORT PARKWAY	CITY: NAPOLEON STATE: OHIO ZIP CODE: 43545
CITY: WILLOUGHBY STATE: OHIO ZIP CODE: 44094	

FEE CALCULATION (NOTE: PERMIT EXPIRES SIX (6) MONTHS FROM DATE OF ISSUE. FEE IS NON-REFUNDABLE)

REMOVALS ONLY: TANKS PRESENTLY IN USE? Yes X No__ Date Last Used:_____ (Attach Separate Sheet If Needed)

REMOVALS/ABANDONMENTS:					
TOTAL SYSTEMS *	3	X	$100.00	PER SYSTEM	= $300.00
TANKS ONLY		X	$ 80.00	PER TANK	=
PIPING ONLY		X	$100.00	PER FACILITY	=
INSTALLATIONS:					
TOTAL SYSTEMS *		X	$ 75.00	PER SYSTEM	=
TANKS ONLY		X	$ 75.00	PER TANK	=
PIPING ONLY		X	$ 25.00	PER FACILITY	=
REPLACEMENT:					
TOTAL SYSTEMS *		X	$175.00	PER SYSTEM	=
TANKS ONLY		X	$175.00	PER TANK	=
PIPING ONLY		X	$125.00	PER FACILITY	=
REPAIRS:					
TANKS ONLY		X	$ 50.00	PER TANK	=
PIPING ONLY		X	$ 25.00	PER FACILITY	=
UPGRADES: (INCLUDING LEAK DETECTION)					
TOTAL SYSTEMS *		X	$ 75.00	PER SYSTEM	=
TANKS ONLY		X	$ 75.00	PER TANK	=
PIPING ONLY		X	$ 25.00	PER FACILITY	=
LEAK DETECTION		X	$ 25.00	PER FACILITY	=
CHANGE IN SERVICE/TEMPORARY CLOSURE:					
UST(S)		X	$100.00	PER SYSTEM	=

STATE FIRE MARSHAL RECEIVED APR PROGRAM MGMT BUSTR

*TOTAL SYSTEM INCLUDES TANKS, PIPING, SPILL AND OVERFILL, AND LEAK DETECTION — TOTAL DUE = $300.00

SIGNATURE OF APPLICANT: Donna Foley DATE: 4/27/95

BUREAU USE ONLY

AMOUNT PAID: 300.00 CHECK NO: 15235 FEE NO: 5911

SUPERVISOR/INSPECTOR: 363 PERMIT NO: _____ DATE ISSUED _____

COM 5209 (5/93) INCIDENT NUMBER: [redacted]

DIVISION OF STATE FIRE MARSHAL BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS

INSPECTION FIELD REPORT

PERMIT NO: 14069

ISSUE DATE: 5/11/95

I. OWNERSHIP OF TANK

OWNER NO. 686
CAMPBELL SOUP COMPANY
PO BX 311
NAPOLEON, OH 43545
ATTN: DAVID FOLEY

II LOCATION OF TANKS

INCIDENT NO. [redacted]
FACILITY NO. 350059
CAMPBELL SOUP COMPANY
PO BX 311
NAPOLEON, OH 43545

III INSPECTION CODES 101 102 103 201 202 203 301 302 303 401 402 501 502 503 504 601 701

IV. INSTALLATION/REMOVAL

	TANK	TANK	TANK	TANK	TANK	TANK	TANK	TANK
Capacity	10000	10000	5000	5000				
Construction	STEEL	STEEL	STEEL	STEEL				
Product Stored								
CEL/02 Level	0/20	0/20	0/20	0/20				
Inspection Code	103	103	103	103				

Release Detection YES Piping YES

Corrosion Protection YES Piping YES

Spill & Overfill Protection YES (Drop Tube / Ball Float / Electronic (CIRCLE ONE)

Aboveground Test ____ In Ground Test ____ Piping Test ____ Precision Test ____

V. TEMPORARY CLOSURE

Tanks Emptied Yes ___ No ___ Fill Pipe/Dispenser Secured Yes ___ No ___ Vent Lines Open Yes ___ No ___

VI. TANK ~~XXXXX~~ INTERING

Opening Cover Test ____ Method of Cutting AIR Positive Air Supply YES

Safety Precautions YES Attendant YES Protective Clothing YES

Lining Approved By: ____ No. ____ Date: ____

VII. SITE INFORMATION

Cavity I: (Visible) Holes (Tanks) Yes ___ No X Holes (Piping) Yes ___ No X Tank Cavity* NA Piping Run* NA Beneath Dispenser* NA

Cavity II: (Visible) Holes (Tanks) Yes ___ No ___ Holes (Piping) Yes ___ No ___ Tank Cavity* ___ Piping Run* ___ Beneath Dispenser* ___

*Indicate O=Odor, W=Water, ST=Staining, FP=Free Product, SH=Sheen

Remarks: ON 6/12/95 CONTRACTOR OPENED AND CLEANED TANK ONE PIPING REMOVED FROM ALL TANKS THIS WAS DONE DEFOR INSP ON SITE

6/13/95 10:00 AM INSP ON SITE, CONTRACTOR IN TANK UPON MY ARRIVAL

TWO TANKS CLEANED IN THIRD TANK .

Certified Installer Name: MICHAEL COLE No. 10-93-2151

Inspector's Signature [signature] Dept 303 Date: 6/13-14-/95

CDH XXXX Distribution: Gold-LUST File Canary-Records File Pink-Inspector Copy

STATE OF OHIO
DEPARTMENT OF COMMERCE - DIVISION OF STATE FIRE MARSHAL
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
8895 EAST MAIN STREET, P.O. BOX 687
REYNOLDSBURG, OHIO 43068-0687

ADDENDUM FOR UNDERGROUND STORAGE TANK PERMIT

I OWNERSHIP OF TANKS	II LOCATION OF TANKS
OWNER NO. 686 CAMPBELL SOUP COMPANY PO BX 311 NAPOLEON,OH. 43545 ATTN: DAVID FOLEY	INCIDENT NO. [redacted] FACILITY NO. 350059 CAMPBELL SOUP COMPANY PO BX 311 NAPOLEON, OH. 43545
III CONTRACTOR	**IV LOCAL FIRE DEPARTMENT**
GREAT LAKES RESPONSE	NAPOLEON FIRE DEPT.

V. FEE CALCULATION (NOTE ORIGINAL PERMIT APPLICATION FEE IS NON-TRANSFERABLE OR REFUNDABLE)

REMOVALS ONLY TANKS PRESENTLY IN USE? Yes X No ____ Date Last Used: 1995 (Attach Separate Sheet If Needed)

REMOVALS/ABANDONMENTS					
TOTAL SYSTEM *	X	X	$100.00	PER SYSTEM	= 100.00
TANKS ONLY		X	$100.00	PER TANK	=
PIPING ONLY		X	$100.00	PER FACILITY	=
INSTALLATIONS					
TOTAL SYSTEM *		X	$ 75.00	PER SYSTEM	=
TANKS ONLY		X	$ 75.00	PER TANK	=
PIPING ONLY		X	$ 25.00	PER FACILITY	=
REPLACEMENT					
TOTAL SYSTEM *		X	$175.00	PER SYSTEM	=
TANKS ONLY		X	$175.00	PER TANK	=
PIPING ONLY		X	$125.00	PER FACILITY	=
REPAIRS					
TANKS ONLY		X	$ 50.00	PER TANK	=
PIPING ONLY		X	$ 25.00	PER FACILITY	=
UPGRADES:					
TOTAL SYSTEM *		X	$ 75.00	PER SYSTEM	=
TANKS ONLY		X	$ 75.00	PER TANK	=
PIPING ONLY		X	$ 25.00	PER FACILITY	=
LEAK DETECTION		X	$ 25.00	PER FACILITY	=
CHANGE IN SERVICE/TEMPORARY CLOSURE.					
UST(S)		X	$100.00	PER SYSTEM	=

*TOTAL SYSTEM INCLUDES TANK, PIPING, SPILL AND OVERFILL, AND LEAK DETECTION

TOTAL DUE = 100.00

SIGNATURE OF APPLICANT: [signature] DATE: 6/14/1995

BUREAU USE ONLY

INSPECTOR'S SIGNATURE: [signature] 303 DATE: 6/14/1995

PERMIT NO.: 14069 DATE ISSUED: 5/11/1995

COM XXXX Revised 1/95 Distribution White-UST File Canary-Records File Pink-Inspector Copy

1800 Indian Wood Circle, Maumee, Ohio 43537
Tel: 419.891.2222 Fax: 419.891.1595
www.MannikSmithGroup.com

FOIA REQUEST

To:	Henry County Health Department	From:	Ryne Sundvold
	Joy Ermie	Date:	January 13, 2015
	Health Educator/ Public Information Officer		
Fax:		Phone:	Pages: 2
E-mail:	jermie@henrycohd.org	Project #:	PID 22984
Re:	File Review Request		

The attached items are transmitted as checked below:

☐ For review ☐ Please comment ☐ Urgent
☒ Please Reply ☐ As requested ☐ Approved as noted
☒ Please Recycle ☐ Other:

Please accept this request for information you may have related to the following sites:

Site 6: 1005 E Riverview Ave, Napoleon, Ohio (Parcel #: 28-0700640000)
Site 8: 899 E Riverview Ave, Napoleon, Ohio (Parcel #: 28-0700600000)

Looking for records of any "Notice of Intent to Fill" for the above referenced properties.

If you have no information pertinent to these sites please respond to this request in writing (an email is sufficient).

If you have any questions or require additional information, please feel free to contact me at the office number above and or via email at RSundvold@MannikSmithGroup.com.

Thanks.

(If there are any problems in transmission or I have sent you something in error, please advise).

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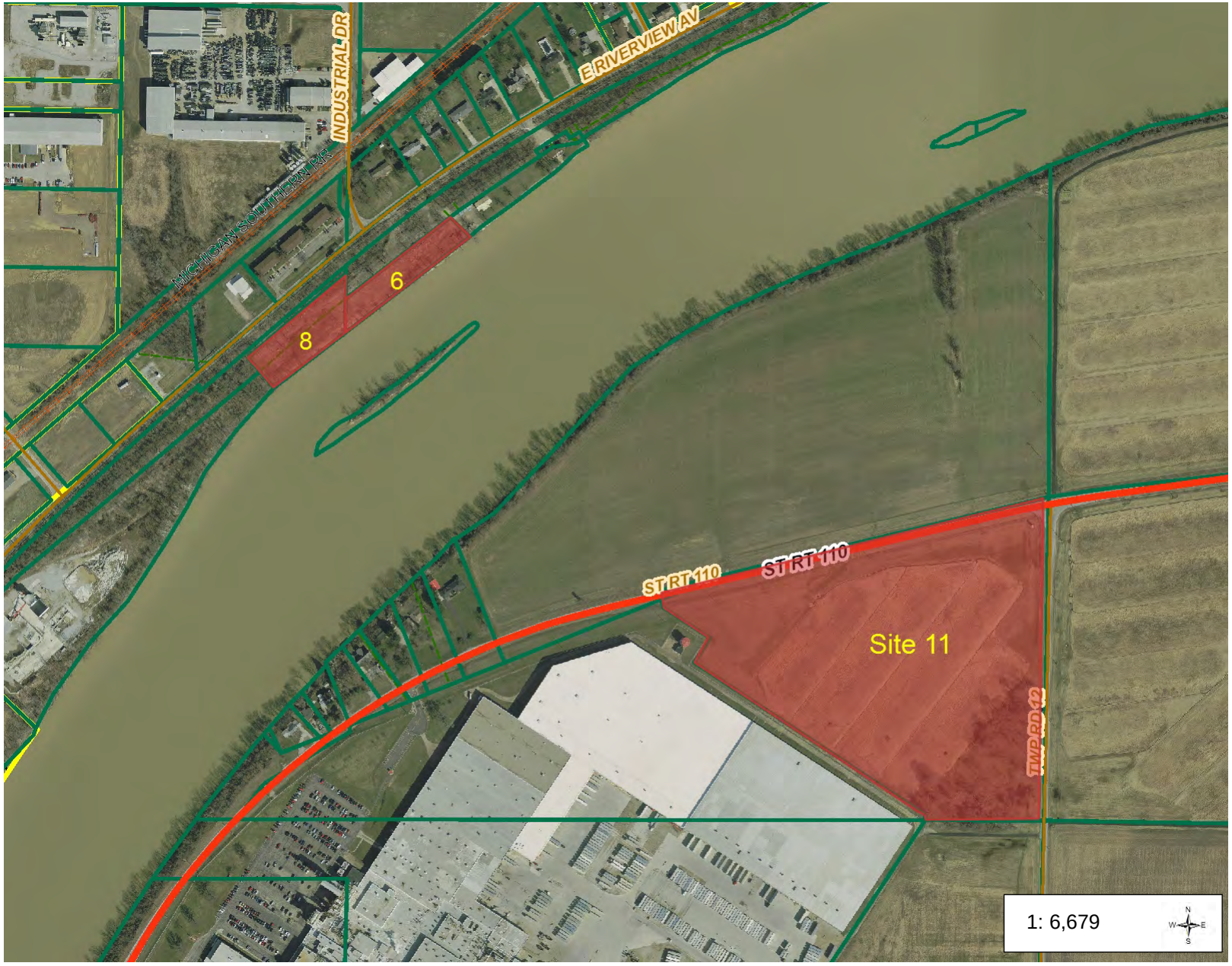
Henry County, Ohio



Legend

- Highways
- Street CenterLines
- Active Railroads
- Abandoned Railroads
- Parcel Info
- Subdivision Lines
- Historic Parcel Lines
- Historic Lot Lines
- Lot Lines

Henry_RGB_30x.sid

- Red: Band_1
- Green: Band_2
- Blue: Band_3

Notes

Enter Map Description

1,113.2 0 556.59 1,113.2 Feet

NAD_1983_StatePlane_Ohio_North_FIPS_3401_Feet

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

From: Jon Lindsay <jlindsay@henrycohd.org>
To: "RSundvold@manniksmithgroup.com" <RSundvold@manniksmithgroup.com>
CC: Joy Ermie <jermie@henrycohd.org>
Date: 1/15/2015 11:57 AM
Subject: RE: FOIA request
Attachments: NOI, 875 Riverview, Napoleon.pdf

Ryne Sundvold,
I was forwarded your request for information regarding the properties on Site 6 and Site 8 on Riverview Avenue in Napoleon, Ohio. The request for Notices of Intent to Fill for these properties were reviewed. We do not have any Notices of Intent to Fill for either of the property addresses listed. However, we do have one Notice of Intent to Fill for 875 Riverview Ave, which is close to this area. You may also wish to contact the Ohio EPA, Northwest District Office to find out if they have any additional records of these two properties.
I have attached the information related to 875 Riverview for your information.
If you have any other questions, please let me know.
Please take just a couple of minutes to complete a short survey regarding your experience with Henry County Health Department's Environmental Health Services. Your answers are anonymous. Click here to take survey<https://www.surveymonkey.com/s/5S5DNVY>.

Thank you

Jon Lindsay, RS
Director of Environmental Health
Henry County Health Department
1843 Oakwood Avenue
Napoleon, OH 43545
Direct Phone Line: 419-591-3013
Health Department Number: 419-599-5545
Fax: 419-592-6400
Email: jlindsay@henrycohd.org<mailto:jlindsay@henrycohd.org>
Web Site: www.henrycohd.org

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From: Joy Ermie
Sent: Tuesday, January 13, 2015 3:44 PM
To: Jon Lindsay
Subject: FW: FOIA request
Jon,
Would you mind helping me with this?
Thank you,
Joy

Confidentiality Notice: "This e-mail is intended for the sole use of the intended recipient and may contain privileged, sensitive, or protected health information. If you are not the intended recipient, be advised that the unauthorized use, disclosure, copying, distribution, or action taken in reliance on the contents of this communication is prohibited. If you have received this e-mail in error, please notify the sender via telephone or return e-mail and immediately delete this e-mail."

From: Ryne Sundvold [mailto:RSundvold@manniksmithgroup.com]
Sent: Tuesday, January 13, 2015 2:40 PM
To: Joy Ermie
Subject: FOIA request

Please see the attached FOIA request for properties at 1005 E Riverview Ave, Napoleon, Ohio (Parcel #: 28-0700640000) and 899 E Riverview Ave, Napoleon, Ohio (Parcel #: 28-0700600000).

Thank you,
Ryne Sundovld
Environmental Scientist
The Mannik & Smith Group, Inc.
419-891-2222 ext. 203

--

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is intended only for the use of the individual to whom it is

addressed and may contain information that is privileged,

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without retaining any copies. Thank you.

****

HENRY COUNTY HEALTH DEPARTMENT

1843 Oakwood Avenue
Napoleon, Ohio 43545
Phone: 419-599-5545
Fax: 419-592-6400
Email: jlindsay@henrycohd.org

Fax

To:	Michael Rath	**From:**	Jon Lindsay, RS
Fax:	419-782-5900	**Pages:**	Including cover
Phone:	419-782-6786	**Date:**	May 20, 2005
Re:	Clean Hard fill, 875 Riverview, Rettig	**CC:**	

☐ **Urgent** ☑ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

Mr. Rath

Your 'Notice of Intent to Fill' was received indicating that you are planning on filling an area along the Maumee River across the road from Industrial Drive. The intent is to change the grade of this area. Your fax indicated that the material to be placed in this area would be concrete, brick, asphalt concrete and dirt. Please be aware that according to the Ohio Administrative Code 3745-400-05 clean hard fill is defined as "reinforced or non-reinforced concrete, asphalt concrete, brick, block, tile, and/or stone."

Please note that filling a floodplain with clean hard fill may be regulated by other local and state agencies.

Filling is to begin on Monday, May 23. You must provide a new Notice of Intent to Fill if there are any changes in the information required by the rule for notification.

Notice:

The information contained in this fax transmission is legally privileged, confidential, and protected by law. It is intended only for the use of the addressee. If you receive this communication and are not the intended recipient, you are hereby notified that the copying or distribution of this communication is prohibited. If you have received this communication in error, please immediately notify us by telephone and return the original message to us at the above address.



Todd Rettig, 875 Riverview, Nap.

Fort Defiance
Construction
PO Box 609
7562 SR 66 N
Defiance, Ohio 43512
Phone: 419-782-6786
Fax: 419-782-5900

To: Henry Co. Health Dept

From: Randy Varner

Attn: Jon Lindsey

Phone:

Date: 5-23-05

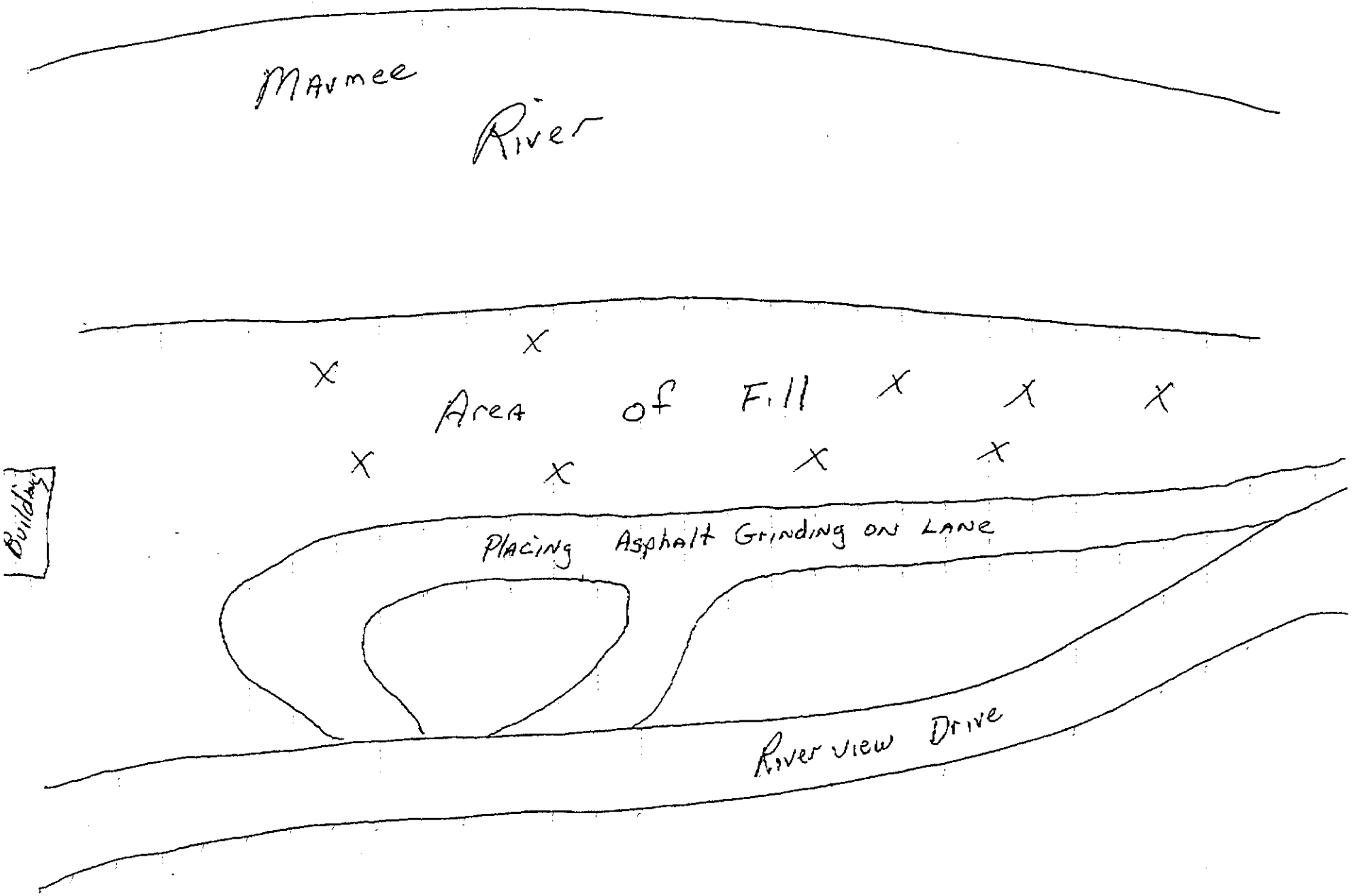
Fax: 419-592-6400

Pages: 3

Re: Todd Rettig WASTE site Bids

☐ Urgent ☐ For Review ☐ Please Comment Please Reply Please Quote

•Comments:


Maumee
River
Area of Fill
Building
Placing Asphalt Grinding on Lane
River View Drive

FORT DEFIANCE CONSTRUCTION & SUPPLY, INC.

P. O. BOX 609 • 07622 SR 66 NORTH • DEFIANCE, OHIO 43512
Phone 419/782-6786 FAX 419/782-5900

May 23, 2005

Henry County Health Department
1843 Oakwood Ave.
Napoleon, OH 43545

Attn: Jon Lindsey

Dear Jon:

Please take this as the "Notice of Intent to Fill" at 875 Riverview Dr., Napoleon, Ohio. This property is owned by Todd Rettig and our intend is to change the grade by placing clean hard fill, namely concrete, brick, asphalt concrete and dirt on this site. See attached drawing of what we are proposing to fill.

Per our discussion we would like to have your permission as soon as possible.

Sincerely,

Fort Defiance Construction & Supply, Inc.

Michael P. Rath
President

Cc: file
Enclosure

1800 Indian Wood Circle, Maumee, Ohio 43537
Tel: 419.891.2222 Fax: 419.891.1595
www.MannikSmithGroup.com

FOIA REQUEST

To:	Ohio EPA-NWDO	From:	Ryne Sundvold
	Jennifer Kellermeier	Date:	November 12, 2014
Fax:	419-352-8468 Phone: 419-373-3084	Pages:	4
E-mail:	jennifer.kellermeier@epa.oh.gov	Project #:	PID 22984
Re:	File Review Request		

The attached items are transmitted as checked below:

☐ For review ☐ Please comment ☐ Urgent
☒ Please Reply ☐ As requested ☐ Approved as noted
☒ Please Recycle ☐ Other:

Please accept this request for information you may have related to the following site:

Parcel #: 22-070004.0100

Parcel #: 28-070060.0000 and 28-070064.0000

I am interested in any files you may have concerning the possible release of hazardous substances or petroleum products on the property, except for indications of releases to the air, which are outside of the scope of this request. If you have no information pertinent to this site please respond to this request in writing (an email is sufficient).

If you have any questions or require additional information, please feel free to contact me at the office number above and or via email at RSundvold@MannikSmithGroup.com.

Thanks.

(If there are any problems in transmission or I have sent you something in error, please advise).

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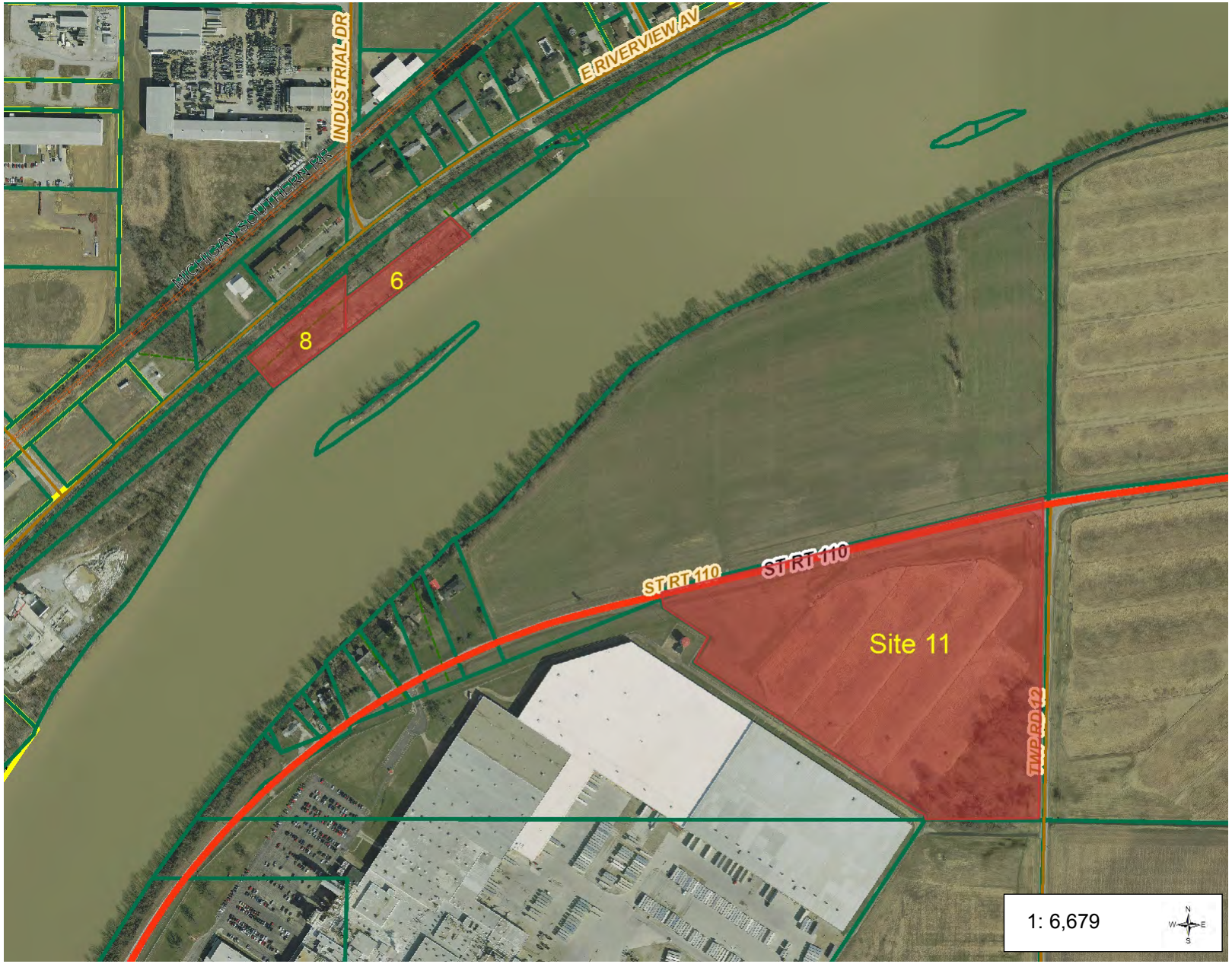
Henry County, Ohio



Legend

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- Subdivision Lines
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Henry_RGB_30x.sid

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Notes

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NAD_1983_StatePlane_Ohio_North_FIPS_3401_Feet

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THIS MAP IS NOT TO BE USED FOR NAVIGATION

File Review Request Checklist

Please Note: Pursuant to Ohio Revised Code 149.43(B)(5), you are not required to fill out this checklist or otherwise provide any public records request in writing. This checklist is intended to help facilitate your public records search by listing the manner in which records are generally maintained by Ohio EPA and accessed in the ordinary course of Ohio EPA's duties.

YOUR CONTACT INFORMATION:

Requester Name: Ryne Sundvold **Affiliation:** The Mannik & Smith Group, Inc.

Requester Address: 1800 Indian Wood Circle

City: **Maumee** **State:** **Ohio** **Zip:** **43537**

Requester Phone #: 4198912222

Requester Email: RSundvold@manniksmithgroup.com

1. **RECORDS REQUESTED:**

Facility or Site Names and Address:

Name	Address	City	County
Site 6	1005 E Riverview Ave	Napoleon	Henry
Site 8	899 E Riverview Ave	Napoleon	Henry
Campbell Soup Supply Company LLC. (Site 11)	12001 OH-110 (ST RT 110 & CO RD 12)	Napoleon	Henry
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

Facility ID No. or other identifying information: Click here to enter text.

2. **DATE RANGE** **From:** **1940** **To:** **Current**

3. **DIVISIONS AND MAJOR PROGRAM AREAS:**

Division of Air Pollution Control (DAPC):

- ☐ Stack Tests
- ☐ Asbestos Emission Controls
- ☐ Air Permits
- ☐ Open Burning Regulation
- ☐ Ambient Air Monitoring
- ☐ Mobile Sources/Asphalt Plants
- ☐ Toxic Release Inventory
- ☐ Air Nuisance

Division of Surface Water (DSW):

- ☐ Nonpoint Source
- ☐ NPDES/Pretreatment
- ☐ Storm Water
- ☐ Surface Water Permits to Install
- ☐ Sludge Management
- ☐ Water Quality Reports/Watershed
- ☒ Wetland and Stream Permitting (401)

Division of Environmental Response and Revitalization (DERR):

Division of Drinking and Ground Waters (DDAGW):

- ☒ Emergency Response Incident Reports
- ☒ RCRA Corrective Action Files
- ☒ RCRA Groundwater Files
- ☒ RCRA Closure Files
- ☒ Voluntary Action Program (VAP) Files
- ☒ Site Assessments
- ☐ Monthly Operating Reports (MORs)
- ☐ Lead and Copper Files
- ☐ Plan approvals, well logs, etc.
- ☐ Ground Water Quality Characterization
- ☐ Underground Injection Control files

Division of Materials and Waste Management (DMWM):

Solid Waste Section:

- ☐ Construction and Demolition Debris (C&DD)
- ☐ Scrap Tires
- ☐ Composting
- ☐ Open Dumping
- ☐ Infectious Waste
- ☐ Municipal Solid Waste Landfills/Incinerators
- ☐ Municipal Solid Waste Transfer Stations
- ☐ Residual/Industrial Solid Waste Landfills
- ☐ Solid Waste Management Planning
- ☐ Beneficial Use

Hazardous Waste Section:

- ☒ Cessation of Regulated Operations
- ☒ RCRA C-Hazardous Waste

☐ **Division of Environmental and Financial Assistance**

4. <u>COMMON PUBLIC DOCUMENT TYPES</u>

- ☐ Final Permits/Licenses/Authorizations
- ☐ Inspection Reports/Checklists
- ☒ Director's Final Findings and Orders
- ☒ District Office Investigation Reports
- ☐ Financial Assurance Documents
- ☐ Water Plant Operator Certifications
- ☐ Settlement Correspondence
- ☐ Attorney General Office Referral Letters
- ☐ Total Maximum Daily Load Reports
- ☒ Notices of Violation
- ☒ Emergency Response Incident Reports
- ☐ Discharge Monitoring Reports (DMRs)
- ☐ Public Notice/Public Hearing Transcript
- ☐ Wastewater Operator Certifications
- ☒ Return to Compliance Letters
- ☐ Bilateral Compliance Agreements
- ☐ Environmental Covenants

5. <u>EMAILS (Please list the following information)</u>

Sender(s): Click here to enter text. Date Range: Click here to enter text.

Recipient(s): Click here to enter text.

Program/Subject Matter: Phase I ESA update

OhioEPA

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

December 4, 2014

Ryne Sundvold
Mannik & Smith Group, Inc.
1800 Indian Wood Circle
Maumee, Ohio 43537

Dear Mr. Sundvold:

I have enclosed a CD with electronic copies of Ohio EPA Northwest District Office information responsive to your request regarding the Campbell Soup Supply Company LLC facility located at 12001 OH-110 (St. Rt. 110 & Co. Rd. 12), Napoleon, Henry County, Ohio. None of our divisions had any information responsive to your requests for Site 6 located at 1005 E. Riverview Avenue, Napoleon, Henry County, Ohio and Site 8 located at 899 E. Riverview Avenue, Napoleon, Henry County, Ohio. These requests are considered complete at this time.

Thanks,

Jennifer Kellermeier
jennifer.kellermeier@epa.ohio.gov
Enclosure

M E M O R A N D U M

To: Campbell's Beverage Pit, Napoleon – Corrective Action file (DHWM file)

From: Sue Kroeger (Reviewer); Ohio EPA Legal Office SCKroeger

Date: 11.26.2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X_ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

Campbell's Beverage Plt **CA**

12 995 SR 110, Napoleon OHD 987 046 703

Henry County DHWM

Ohio EPA

State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

June 19, 2008

CERTIFIED MAIL

Jim Koskan
Campbell Soup Supply Company
12-773 State Route 110
Napoleon, Ohio 43545

RE: RCRA CORRECTIVE ACTION, Campbell Soup Supply, Henry County
OHD 005 419 171, Main Plant, 12-773 State Route 110
OHD 987 046 703, V-8 Beverage Plant, 12-995 State Route 110
OHD 987 023 678, Chemical Residue Analytical Lab, P-152 County Road 12

Dear Mr. Koskan:

Ohio EPA and the United States Environmental Protection Agency (U.S. EPA) have reviewed their records and determined that hazardous waste management units were established and operated at the Campbell Soup Supply facilities (Campbell Soup) listed above and located in Napoleon, Ohio making you the owner/operator of a hazardous waste treatment, storage or disposal facility. As such, we are notifying you that the Campbell Soup property and its current owners are subject to the Resource Conservation and Recovery Act (RCRA) Corrective Action requirements under Ohio law. You should already have received a letter dated April 10, 2007 from U.S. EPA Region V to this effect for the 12-773 State Route 110 (OHD 005 419 171) location.

Ohio's RCRA Corrective Action program, which is consistent with and equivalent to the federal Corrective Action program implemented by U.S. EPA, requires the owner/operator of a treatment, storage or disposal facility to be responsible for investigating and, as necessary, cleaning up any hazardous waste or hazardous constituent releases at, or from their facilities, regardless of when they occurred.

The property located at 12-773 State Route 110 operated as an unpermitted hazardous waste storage, treatment and disposal facility from 1981 through 1983, when semi-solid hazardous wastes were dumped into the Former Holding Pit Area, allowed to dry and eventually were mixed with sand prior to disposal at a landfill. Prior to January 1993, Campbell's ignitable wastes were poured onto a waste coal pile located on the grounds of the Main Plant and later burned in a boiler for energy recovery. Storage, treatment

and disposal of hazardous wastes were conducted without a permit, thereby subjecting you to the permitting and closure requirements found in Ohio Administrative Code (OAC) Chapters 3745-50, 54 and 55. These activities are why the entire property is subject to the RCRA Corrective Action requirements found in OAC rule 3745-54-101. Closure of the Former Holding Pit Area was conducted in accordance with an approved closure plan and was certified closed on June 11, 2004. Soil sampling of the waste pile area determined that Campbell's activities did not result in any elevated levels of solvents in soil beneath the waste pile.

This notification does not imply failure on your part to meet any obligation, nor should it be construed as an adverse action against you. It only means Ohio EPA and U.S. EPA have identified your facility- and every other facility in the 2020 universe- as needing to complete RCRA corrective action if you have not done so already. U.S. EPA's national program goal is to largely address these cleanup obligations before the end of 2020. Accordingly, progress will be tracked for each facility in the 2020 universe. The list of facilities is posted on U.S. EPA's web site at http://www.epa.gov/correctiveaction.

Ohio EPA considers it mutually beneficial to meet with you or your facility's environmental representative to discuss your RCRA Corrective Action obligations and the options available to address them. I will contact you within the next 30 days to arrange a meeting at your facility. Any relevant information including, but not limited to, waste management activities, spills, releases, investigations including Phase I and Phase II reports, sampling or remediation activities conducted at the facility that you can provide for this meeting may be helpful to our discussions.

While you should be expecting my call within 30 days, please feel free to contact me at (419) 373-3148, if you have any questions.

Sincerely,

Dawn Pleiman

Dawn Pleiman
Division of Hazardous Waste Management

/lb
cc: DHWM, NWDO File: Campbell Soup, Corrective Action, Main Plant & Beverage Plant
Michael Terpinski, DHWM, NWDO
7006 0100 0004 1318 3453
ec: Don North, DHWM, NWDO
Colleen Weaver, DHWM, NWDO
Archie Lunsey, DERR, NWDO
Dawn Pleiman, DHWM, NWDO

7006 0100 0004 1318 3453

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OFFICIAL USE

Postage	$ 42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

Ohio EPA

Postmark Here

JUN 20 2008

Sent To: Mr Jim Kerkan Campbell Soup Supply Co

Street, Apt. No., or PO Box No.: 12-773 State Route 110

City, State, ZIP+4: Napoleon Oh 43545

PS Form 3800, June 2002 — See Reverse for Instructions

DHO - HB

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr Jim Kerkan
Campbell Soup Supply Co
12-773 State Route 110
Napoleon Oh
43545

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Robert Austermiller ☐ Agent ☐ Addressee

B. Received by *(Printed Name)*: ROBERT AUSTERMILLER — C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)*: 7006 0100 0004 1318 3453

PS Form 3811, February 2004 — Domestic Return Receipt — 102595-02-M-1540

Campbell Soup Supply Co.
12-995 State Route 110, Napoleon, Ohio, V-8 Beverage Plant, Henry County
OHD 987 046 703
Corrective Action Summary Notes

Site History

Campbell's Beverage Plant produces heat-processed food products including several types of vegetable juices (ex. Splash and V-8). Very little hazardous waste is generated at the plant because most of the materials used in the plant must be food grade materials. The Beverage Plant used to be a SQG and a burner of waste oil. Now the plant is just a CESQG-TSD. The facility generates video ink jet waste (D001, F005), waste paint (D001) and non-hazardous used oil. The waste codes listed for the V-8 Plant are D001, D002, D009 and F005.

An April 26, 1994 NOV letter cited the Beverage Plant and Lab with 3734.02(E)&(F) violations for storing and treating ignitable hazardous wastes in a waste pile prior to burning in an on-site boiler without a hazardous waste installation and operation permit. Up until January 1993, Campbell's ignitable wastes were poured onto a coal pile (located on Campbell's Main Plant property) and later burned in a boiler for energy recovery. Campbell prepared a sampling and analysis plan (SAP) for the soil beneath the coal pile and determined that disposal of the waste solvent did not impact the soil. Therefore the violation was considered abated in a December 12, 1994 letter from Ohio EPA.

A November 2003 CEI found a violation for failing to determine that its video ink jet waste (D001) was also F005 hazardous due to the cleaner containing 68% MEK. Another violation was cited for failing to check or record emergency equipment testing.

Reason Subject to Corrective Action

Corrective Action obligations are linked to the facility due to storage and treatment of the ignitable hazardous wastes in a waste pile prior to burning in an on-site boiler without a permit. The May 16, 2000 NOV letter (that is in the Main Plant file) lists all 3 Campbell's plants.

Campbell Soup Supply Co.
P-152 County Road 12, Napoleon, Ohio, Chemical Residue Analytical Lab, Henry County
OHD 987 023 678
Corrective Action Summary Notes

Site History

The only information that was found on file is a Notification of Regulated Waste Activity form. The document was submitted to show that a new installation contact was listed. The April 5, 1994 CEI was for the Beverage Plant and the Chemical Residue Analytical Lab. Violations as a result of the CEI were listed for both facilities.

A 1994 CEI cited two violations: pre-transport requirements (emergency equipment testing) and closure/post-closure (operation of a coal waste pile for storage/treatment). The violation for the emergency equipment testing was abated on 6/29/94. Campbell's demonstrated that the application of waste solvent onto the coal pile did not impact the underlying soil beneath the coal pile so the violation was considered abated on 12/12/94.

RCRA Info lists the following waste codes: D001, F002, F003

Reason Subject to Corrective Action

Corrective Action obligations are linked to the facility due to storage and treatment of the ignitable hazardous wastes in a waste pile prior to burning in an on-site boiler without a permit. The inspection that cited this violation did not indicate where the waste solvent was generated. There is the possibility that the waste solvents came from only the Beverage Plant and not the Lab. However, the May 16, 2000 NOV letter (that is in the Main Plant file) lists all 3 Campbell's plants.

DP 06/08

M E M O R A N D U M

To: Campbell's Fresh Inc., Napoleon – PCB compliance inspection, DERR/RRS file

From: Sue Kroeger (Reviewer); Ohio EPA Legal Office SCKroeger

Date: 11.26.2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X_ All files are public

No records were removed based on this review.

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___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

CAMPBELL'S FRESH INC.

PCB FILE

RRS/DERR

Henry Co.

FTTS TRACKING SYSTE
INPUT DOCUMENT FOR INSPEC..ONS

INSPECTION DATE: 11-19-97 **INSPECTOR NUMBER:** OH029 **INSPECTION SEQ:** 01

LEGISLATIVE IND: ___ **INVESTIGATION TYPE:** 6PS

REGION OR STATE: ___ INSPECTOR NAME: WILDER

REASON FOR INSPECTION: NSS REFERRAL TYPE: ___ FILE NUMBER: ___

DATE RPT RECV: ___ WARRANT REQUIRED: ___ NUMBER OF SAMPLES: ___ CBI: ___

NUMBER OF SCHOOLS: ___ SCHOOL TYPE: ___ **FACILITY FUNCTION:** US

EPA ESTAB: ___ - ___ PROD REG #: ___ - ___ FED FACILITY: ___

REMARKS (50): ___

SITE NAME: Campbell's Fresh Inc.

SITE ADDRESS: P152 County Rd 12

SITE CITY: Napoleon STATE: OH ZIP: 43545-0351

SITE DUNS: ___ SITE COUNTY: Henry

SITE SIC CODES: FF ___ ___ ___ ___

PARENT CO NAME: Campbell Soup Co

PARENT CO ADDRESS: Campbell Place

PARENT CO CITY: Camden STATE: NJ. ZIP: 08103-1799

MEDIA EXPERT: ___ DATE TO MEDIA EXPERT: ___

INVESTIGATION TYPE:
6CF Section 6 Chloroflourocarbons
6DX Section 6 Dioxin
6FA Section 6 PCB AARP Conducted
6PF Section 6 PCB Federal Conducted
6PS Section 6 PCB State Conducted

REASON FOR INSPECTION:
FCA For Cause, Associated
FCD For Cause, Disposal
FCF For Cause, Follow-up
FCG For Cause, Government
FCH For Cause, Headquarters
FCP For Cause, Private Citizen/ Press Complaint
FCR For Cause, Regulated Community Complaint
FCV For Cause, Violation
NSA Neutral Scheme, Associated
NSF Neutral Scheme, Follow-Up
NSH Neutral Scheme, Headquarters
NSI Neutral Scheme Indian Tribe
NSR Neutral Scheme Region
NSS Neutral Scheme State
OVR SNC Overview Inspection
SCD Secondary Investigation

FACILITY FUNCTION:
BK Broker
~~CV Conveyor (Hauler)~~
DA Alternative Methods
DH High Efficiency Boilers
DI Permitted Disposer Incinerators
DL Landfills
DM Dredge/Sludge Materials
DP Disposer(Non-permitted)
DR Research & Development
DT Distributor
LB Laboratory
MI Manufacturer/Importer
MN Manufacturer
PC Processor
PS Secondary Processor
PT Port of Entry
ST Storer
US User, Scrap Yard, Electrical Man., and Repair

SITE SIC CODES:
BK Broker
CB Commercial Buildings
CH Chemicals
CV Conveyor (Hauler)
DP Disposal-Permitting
DS Disposal-Spills
EM Electric Equipment Manuf. and Repair
EU Electric Utilities
FF Food and Feed
GF Government, Federal
GL Government, Local
GM General Manufacturing
GS Government, State
MF Metal Forming
SS Scrap and Salvage
ST Storer
OT Other

RETURN TO: ___

ENTERED FTTS: ___

REVISED 2/96

INSPECT.FRM

OEPA

RECEIVED
98 AUG 26 AM 9:27
DERR-CHEMICAL EMERGENCY PREPAREDNESS & PREVENTION SECTION

AUG 20 1998

DRT-14J

Jerry Grove, Production Manager
Campbell's Fresh Inc.
P 152 County Road 12
Napoleon, Ohio 43545-0351

Re: PCB Compliance Inspection
Date: November 19, 1997

Dear Sir:

A representative of the United States Environmental Protection Agency (U.S. EPA) conducted a PCB compliance inspection at the above referenced facility on the above date.

Based upon the data collected during the inspection, the U.S. EPA has determined that no violations of the Federal PCB regulations, 40 C.F.R., Part 761, were evident at the time of the inspection.

Please be advised that your Square D transformer, s/n 796006822, is assumed to PCB-contaminated. When this unit is removed from service it must be tested to determine the proper method of disposal.

If you have any questions, please do not hesitate to call this office at 312-886-6937.

Sincerely,

Anthony L. Restaino, Chief
Pesticide and Toxics Enforcement Section

bcc: Pesticide and Toxics Enforcement Section/File
Pesticide and Toxics Enforcement Section/Moore
OEPA Schultz

DRT-14J:wilder:iw(614)644-3067:November 20, 1997:1

ALR

INTER-OFFICE MEMORANDUM

TO: Kendall Moore, Ohio Project Officer, U.S. EPA Region V

FROM: Isaac B. Wilder, Ohio EPA-DERR, Chemical Emergency Prevention Unit-PCB

SUBJECT: PCB Inspection conducted at:

Campbell's Fresh Inc.
P 152 County Road 12
Napoleon, Ohio 43545-0351

DATE: November 20, 1997

Violations of the TSCA PCB regulations were not evident at Campbell's Fresh Inc., P 152 County Road 12, Napoleon, Ohio 43545-0351 **during an inspection conducted on** November 19, 1997.

REPORT ON INSPECTION TO DETERMINE COMPLIANCE WITH THE PCB DISPOSAL AND MARKING REGULATIONS

November 19, 1997

Campbell's Fresh Inc.
P 152 County Road 12
Napoleon, Ohio 43545-0351

PERFORMED BY:

OHIO ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF EMERGENCY AND REMEDIAL RESPONSE
P.O. BOX 1049, 1800 WATERMARK DRIVE
COLUMBUS, OHIO 43216-1049

AS AUTHORIZED UNDER THE
U.S. EPA PILOT TSCA COOPERATIVE
ENFORCEMENT AGREEMENT PROGRAM

PCB COMPLIANCE INSPECTION REPORT

I. OBJECTIVE

The inspection was conducted to document the facility's handling, storage and disposal practices and to determine its compliance with the PCB Regulations, 40 CFR Part 761, as published in the Federal Register of May 31, 1979 and as amended.

II. COMPANY IDENTIFICATION

Campbell's Fresh Inc.
P 152 County Road 12
Napoleon, Ohio 43545-0351

RESPONSIBLE OFFICIAL

Jerry Grove, Production Manager

III. DATE OF INSPECTION

November 19, 1997

IV. PARTICIPANTS

Company

Jerry Grove, Production Manager
John L. Scott, Supervisor Water & Wastewater Treatment Campbell Soup Co.

Ohio EPA

Isaac B. Wilder, Environmental Specialist II (author)
Thomas P. Buchan, Environmental Specialist II

V. COMPANY BACKGROUND [X] PCBs [ ] No PCBs discovered

Parent company:

Campbell's Fresh Inc. is a wholly owned subsidiary of the Campbell Soup Company. The Campbell Soup Company is headquartered at Campbell Place, Camden, New Jersey, 08103-1799. The CEO of Campbell Soup is Dale Morrison.

The facility began as the first mushroom farm for Campbell's Soup. The farms were considered part of the closest soup plant. The present facility was built at this location in 1980 as the CAMSCO Mushroom Company. The spawn operation did not become part of the company until 1982 when the company became CAMSCO Produce Company. The company became known as Campbell's Fresh Inc. in 1990. The land that the facility is on belongs to the Campbell Soup Company. The facility belongs to Campbell's Fresh Inc. There are approximately 18,00 square feet under roof. The facility has 22 full time employees.

The facility produces mushroom spawn, which is the vegetative state of the fungi from which mushrooms grow. The facility grows the mycelium on a hydrated grain culture medium. This innoculated culture is allowed to incubate approximately two weeks at which time it is harvested and bagged. The bagged culture medium is then allowed to grow for two weeks at 35 degrees F before it is shipped. The facility sells the innoculum to Campbell's Fresh Inc. mushroom

farms as well as other independent farms. The innoculum is used to seed compost on which the mushrooms are grown. Campbell's Fresh Inc. grows approximately 100 million pounds of mushrooms a year.

Basis for selection:

Neutral Inspection Scheme.

VI. INSPECTION SUMMARY

A. Opening Conference

The inspector(s) met with company officials as indicated in Section II, presented TSCA Inspection Credentials, explained the purpose of the inspection, and presented for signature the TSCA inspection Forms as indicated below:

[X] Notice of Inspection
[X] TSCA Confidentiality Notice
[ ] Receipt for samples/Documents collected

These documents are enclosed as Attachment A and were signed by the Responsible Official referenced above.

B. Circumstances Applicable to this Inspection

[ ] Manufacturing	**[ ] Distribution**
[ ] Processing	**[X] Use/Authorizations**
[ ] Marking	**[ ] Disposal**
[ ] Storage	**[ ] Recordkeeping**
[ ] None of the Above	

C. CITATION

[X] Not Applicable
[ ] Citation Issued on:
[ ] Response received on:

D. CLOSING CONFERENCE

[X] The inspector(s) explained the three possible outcomes of the inspection and informed the company officials that a final determination and notification would be made by the USEPA Region 5 Office.

VII. SAMPLES/ PHOTOGRAPHS/ DOCUMENTS

[X] None Taken
[ ] See attachments as listed

VIII. ATTACHMENTS

A. TSCA Documents

1. Notice of Inspection
2. TSCA Inspection Confidentiality Notice

IX. INSPECTOR'S COMMENTS

[ ] Manufacturing (761.20)	[ ] Distribution (761.20)
[ ] Processing (761.20)	[X] Use/Authorizations (761.30)
[ ] Marking (761.40)	[ ] Disposal (761.60)
[ ] Storage (761.65)	[ ] Recordkeeping (761.180)
[ ] Other	

A. Manufacturing (761.20)
The facility is not a manufacturer of PCBs.

B Distribution (761.20)
The facility is not a distributor of PCBs.

C. Processing (761.20)
The facility is not a processor of PCBs.

D. Use/Authorizations (761.30)

1. Electrical Equipment

a. Transformers
The facility owns two oil filled, PCB containing transformers. One transformer was new when the facility was built in 1980. This is a Square D, 12470 volt, 135 gallon, 150 KVA transformer s/n 796006822. The other transformer was purchased new in 1994. Both transformers are located outside the building on a pad. Both transformers are inside metal enclosures.

b. Capacitors
The facility does not own any PCB capacitors

c. Other Electrical Equipment
The facility does not own any other PCB containing electrical equipment.

2. Hydraulic Equipment
The facility does not own any PCB containing hydraulic equipment.

3. Heat transfer Equipment
The facility does not own any PCB containing heat transfer equipment.

E. Marking (761.40)
NA

F. Disposal (761.60)
The facility has never disposed of any PCB equipment.

G. Storage (761.65)
NA

H. Recordkeeping (761.180)
NA

I. Other
NA

Isaac B. Wilder — November 20, 1997

Isaac B. Wilder — **Date**

ATTACHMENT A

EPA

ed States Environmental Protection Age
Washington, D.C. 20460
Toxic Substances Control Act

Form Approved
OMB No. 2070-0007
Approval Expires 07-31-96

NOTICE OF INSPECTION

The public reporting burden for this collection of information is estimated to average 5 minutes per response. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information to the Chief, Information Policy Branch (PM-223), US Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked ATTENTION: Desk Officer for EPA.

1. Investigation Identification			2. Time	3. Firm Name
Date	Inspector No.	Daily Seq. No.		
11-19-97	Ch-029	01	1000	Campbell's Fresh Inc.

4. Inspector Address	5. Firm Address
Ohio Environmental Protection Agency 1800 WaterMark Drive Columbus, Ohio 43215-1099	P152 Road 12 Napoleon, Oh 43545-0351

REASON FOR INSPECTION

Under the authority of Section 11 of the Toxic Substances Control Act:

[✓] For the purpose of inspecting (including taking samples, photographs, statements, and other inspection activities) an establishment, facility, or other premises in which chemical substances or mixtures or articles containing same are manufactured, processed or stored, or held before or after their distribution in commerce (including records, files, papers, processes, controls, and facilities) and any conveyance being used to transport chemical substances, mixtures, or articles containing same in connection with their distribution in commerce (including records, files, papers, processes, controls, and facilities) bearing on whether the requirements of the Act applicable to the chemical substances, mixtures, or articles within or associated with such premises or conveyance have been complied with.

[ ] In addition, this inspection extends to *(Check appropriate blocks):*

- [ ] A. Financial data
- [ ] B. Sales data
- [ ] C. Pricing data
- [ ] D. Personnel data
- [ ] E. Research data

The nature and extent of inspection of such data specified in A through E above is as follows:

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Inspector Signature		Recipient Signature	
Chaim B Wilder		Jerry Grove	
Name		Name	
Isaac B. Wilder		JERRY GROVE	
Title	Date Signed	Title	Date Signed
Env. Spec II	11-19-97	PRODUCTION MANAGER	11-19-97

EPA 7740-3 Rev (8-91)

*U.S. GPO: 1994-300-835/00257

EPA

United States Environmental Protection Agency
Washington, D.C. 20460
Toxic Substances Control Act

Form Approved
OMB No. 2070-0007
Approval Expires 10-31-92

TSCA INSPECTION CONFIDENTIALITY NOTICE

The public reporting burden for this collection of information is estimated to average 5 minutes per response. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information to the Chief, Information Policy Branch (PM-223), US Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked ATTENTION: Desk Officer for EPA.

1. Investigation Identification			2. Firm Name
Date: 11-19-97	Inspector No.: 61.029	Daily Seq. No.: 01	Campbell's Fresh Inc.
3. Inspector Name: Jane B. Wilder			4. Firm Address: P152 Road 12, Napoleon, Oh 43545-0351
5. Inspector Address: Ohio Environmental Protection Agency, 1800 WaterMark Drive/P.O. Box 1049, Columbus, Ohio 43216-1049			6. Chief Executive Officer Name: Jerry Grove
			7. Title: Production Manager

TO ASSERT A CONFIDENTIAL BUSINESS INFORMATION CLAIM

It is possible that EPA will receive public requests for release of the information obtained during inspection of the facility above. Such requests will be handled by EPA in accordance with provisions of the Freedom of Information Act (FOIA), 5 USC 552; EPA regulations issued thereunder, 40 CFR Part 2; and the Toxic Substances Control Act (TSCA), Section 14. EPA is required to make inspection data available in response to FOIA requests unless the Administrator of the Agency determines that the data contain information entitled to confidential treatment or may be withheld from release under other exceptions of FOIA.

Any or all the information collected by EPA during the inspection may be claimed confidential if it relates to trade secrets or commercial or financial matters that you consider to be confidential business information. If you assert a CBI claim, EPA will disclose the information only to the extent, and by means of the procedures set forth in the regulations (cited above) governing EPA's treatment of confidential business information. Among other things, the regulations require that EPA notify you in advance of publicly disclosing any information you have claimed as confidential business information.

A confidential business information (CBI) claim may be asserted at any time. You may assert a CBI claim prior to, during, or after the information is collected. The declaration form was developed by the Agency to assist you in asserting a CBI claim. If it is more convenient for you to assert a CBI claim on your own stationery or by marking the individual documents or samples "TCSA confidential business information," it is not necessary for you to use this form. The inspector will be glad to answer any questions you may have regarding the Agency's CBI procedures.

While you may claim any collected information or sample as confidential business information, such claims are unlikely to be upheld if they are challenged unless the information meets the following criteria:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.
2. The information is not, and has not been, reasonably obtainable without your company's consent by other persons (other than governmental bodies) by use of legitimate means (other than discovery based on showing of special need in a judicial or quasi-judicial proceeding).
3. The information is not publicly available elsewhere.
4. Disclosure of the information would cause substantial harm to your company's competitive position.

At the completion of the inspection, you will be given a receipt for all documents, samples, and other materials collected. At that time, you may make claims that some or all of the information is confidential business information.

If you are not authorized by your company to assert a CBI claim, this notice will be sent by certified mail, along with the receipt for documents, samples, and other materials to the Chief Executive Officer of your firm within 2 days of this date. The Chief Executive Officer must return a statement specifying any information which should receive confidential treatment.

The statement from the Chief Executive Officer should be addressed to:

TSCA Document Control Officer
U.S. EPA Region V DRT-8J
77 West Jackson Boulevard
Chicago, Illinois 60604

and mailed by registered, return-receipt requested mail within 7 calendar days of receipt of the Notice. Claims may be made any time after the inspection, but inspection data will not be entered into the special security system for TSCA confidential business information until an official confidentiality claim is made. The data will be handled under the agency's routine security system unless and until a claim is made.

TO BE COMPLETED BY FACILITY OFFICIAL RECEIVING THIS NOTICE:	If there is no one on the premises of the facility who is authorized to make business confidentiality claims for the firm, a copy of this Notice and other inspection materials will be sent to the company's chief executive officer. If there is another company official who should also receive this information, please designate below.
I have received and read the notice.	

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature: Jerry Grove		Name
Name: JERRY GROVE		Title
Title: PRODUCTION MANAGER	Date Signed: 11-19-97	Address

EPA 7740-4 Rev (8-91)

Inspector's File

Harris ID: 6831911

Company: Campbell's Fresh Inc
Address: PO Box 311
Napoleon, OH 43545-0311

Location: 845 Interstate Dr
Napoleon, OH 43545
County: Henry

Phone: 419-599-6732
Fax: 419-599-6666

Employment: 20
Employment Change%: 0
Sales Range: D-$5MM-9.9MM
Plant Size: 0
Foreign Trade: Export
Year Established: 1948

Personnel:

Tom Richard, Plant Mgr

SICS:

2033 - Canned Fruits, Vegetables & Preserves (Primary)

Product Description: Mushroom spawn seed & nutrients

Products:

FOOD PRDTS, CANNED: Vegetables
FERTILIZERS: Organic

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FACI[illegible] CONTACT FORM FOR PCB INSPECT[illegible]S

Mushroom spawn seed + nutrients
- Canned vegetables

Facility Name: Campbell's Fresh Inc

Facility Address: 845 Interstate Dr.
Napoleon, OH 43545

Phone Number: (419) 599-6732 Date Contacted: 11/13/97

Environmental Contact & Title: Jerry Grove, Production

SIC Number: 2033

Date of Inspection Wed. 11/19/97 Time: 10 AM. ↑

Checklist:

-Ohio TSCA PCB Program explained: ✓

-Selection process - Neutral inspection scheme: ✓

- Pollution incident report: ____

-Inspection procedure -Opening conference: (records required)
-Facility Walk Through: ✓
-Closing Conference: (discuss violations)

Directions to facility I-75 → US6 (West) →
→ @ Napoleon Rt. 6 North (curve)
≈ 1/2 mile → turn left on CR "P"
→ ≈ 3 mile to CR 12 (turn right)
→ ≈ 1/4 mile → below bldgs → white Bldgs.

Inspectors Signature TPB Date 11/13/97

Campbell's Fresh

Tony Graves — Production Manager —
John Scott — Env. Engineer — Campbell Soup Co

Fresh Inc.
~~CAMSCO~~ CAMSCO — Mushroom Co —
original name 1978 —

Spawn production was at part of Camsco —
was record Co —

1982 CAMSCO Mushroom → Camsco Produce Co. —
at that time Spawn became part of Co —

Campbell Soup Inc 1990 —

1998 was last Mushroom farm / was
combined part of closed Soup Plant

Campbell Fresh Inc = Wholly owned Subsidiary
of Campbell Soup

C20 — Dale Morrison — Campbell Soup Co.
Campbell Place
Camden, N.J. 08103-1799

Size - one building no layout. 18,000 sq ft

Emp. - 22 full time employees.

- Manufacture Mushroom spawn.
  Mushroom spawn = seeds - vegetative growth - do not use spores because of mutations -

- Produce product for Campbell's fresh lac. farms - grow mushrooms - also sell spawn to others -

Grow mushrooms on Grain Medium - ~~[illegible]~~ - regulating mass -

- Raw Grain - hydrate - sterilize it -
- inoculate with spawn -
- grow - - 2 weeks -
- package -- regrows for 2 weeks -
- refrigerate + ship -

1 month to have mushrooms grown -
get 4 harvests - 1 week apart

white buttons / brown buttons.
~~portabellas~~ -

Grow
100 millions lbs. Mushroom / year by
Campbells fresh, Inc.

Feb 1980, at This facility — New —

Product dist. International.

— Own xformers — 2 oil filled — in farm

— Doesn't know status of xformers —
one in 1980, 1994,

— Out door pad mounted —

— Don't know about Capacitors —

— oil filled hydraulic — all purchased new
since 1980.

— No waste oil —

— No heat transfer agency —

- No PCB storage area
- No disposal of PCB. -
- No Spills -

Square D 125 gallons — 150 KVA
S/N 79b006822 — 12470 Volts

TPB
PW

11/19/97 at 10:00 Campbell's ~~Soup~~ Fresh ~~Company~~ Inc. -

Jonathan L. Scott, Supervisor - Water & Waste Treatment, Env.
Jerry Grove, Production Manager

Est. as Camsco Mushroom Co. - ≈ 1978
⇒ CAMSCO Produce Co ~~Eng~~ 1982's
Spawn operations began and
as Campbell's Fresh ≈ 1990

This location new in Feb. 1980

Note: 1948 when first Mushroom farm plant est as part of Campbell's Soup
- wholly owned subsidiary of Campbell's Soup
- own bldgs. only; land owned by Campbell's Soup

Size: 18,000 sq. ft.
emp: 22
Operations: Mfg. mushroom spawn (seed)
i.e.) fungus ⇒ farm ⇒ grows mushroom
- sold to fresh market as well as ~~Soup~~ Campbell's Soup Plant Mushroom farm
- (grown on a grain medium)
Rain grain ⇒ hydrate ⇒ sterilize ⇒ innoculate ⇒ spawn
⇒ grow ⇒ package ⇒ refrigerate ⇒ ship
(two wk. growing time)
- mushroom growing time ≈ one month
- ≈ 100 million lbs / yr. mushroom grown by Campbells
- mmf: mainly white and brown button mushrooms

Present: Campbell's Soup Co.
Dale Morrison, CEO
Campbell Place
Camden, N.J. 08103-1799

Distribution: Intermittent

Trans: - Oil filled - in service
- one purchased new in 1980
" " " " 1994
- never tested to knowledge
(both located outdoor sub-pad)

Capacitors: none

Hydraulic: All purchased new since 1980
use Paradein Hydraulic Fluid

Waste Oils: none

Heat Transfer: Non

Storage: none

Disposal: ~~None~~ None

Spills: No

MSDS for Hydraulic Oil:
Paradene AW Hydraulic Oil
manf. by Dryden Oil Co., Baltimore, MD.

WalkThru:
- observed (8) trans.
- no signs of leaks

Closing: No evidence of violations

M E M O R A N D U M

To: Campbell's Soup Company, Napoleon – spill, incident report (1997)

From: Sue Kroeger (Reviewer); Ohio EPA Legal Office SCKroeger

Date: 11.26.2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X_ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

COPY

Emergency Response Section - Initial Pollution Incident Report (IPIR)

11/12/2014

Spill Id Number: 9709-35-3998//0 **District:** NW

Reported By: JOHN SCOTT
Title:
Telephone: (419) 599-6794 **ext:**
Affiliation: COMPANY

Reported: 09/30/1997 11:34
Discovered: 09/29/1997 13:00
Occurred: 09/29/1997 1300
Chronic: N

County: HENRY
Did Spiller Report ? Y
Received By: LAUCK, GREG
Local EPC ? N
Business: N

City/Township: NAPOLEON
Complaint ? N
Priority: 4
Did you tell the Spiller to Call the N.R.C ? N
SARA Report: N

Suspected Spiller: CAMPBELLS SOUP CO
Mailing Address: 12773 sr 110
NAPOLEON, OH 43545
Telephone: (000) 000-0000 **ext:**

Location: BEVERAGE PLANT
Source: FIXED FACILITY - BUSINESS - OTHER
Cause: DA / CUT OR BREAK
Reason: BREAK OR BROKEN
Waterways Affected: N/A
Media Affected 1: AIR
Media Affected 2:
Media Affected 3:

Product(s) Spilled

Product	Amount	UOM	RQ	Size	Type	EHS
FFREON	1,500.0	LBS	.0	S	A	N

Other Agencies Notified

Agency	Person	Date	Time
DAPC	RICH	00/00/0000	

Remark

RELEASE OF FREON TO ATMOSPHERE DUE TO EQUIPMENT MALFUNCTION.

COPY

Emergency Response Section - Initial Pollution Incident Report (IPIR)

11/12/2014

Spill Id Number: 0109-35-3636//0 **District:** NW

Reported By: MIKE MARINGER **Reported:** 09/26/2001 10:11
Title: MANAGER **Discovered:** 09/26/2001 06:50
Telephone: (419) 599-6637 **ext:** **Occurred:** 09/26/2001 0650
Affiliation: COMPANY **Chronic:** N

County: HENRY **City/Township:** NAPOLEON
Did Spiller Report ? Y **Complaint ?** N
Received By: LAUCK, GREG **Priority:** 4
Local EPC ? N **Did you tell the Spiller to Call the N.R.C ?** Y
Business: Y **SARA Report:** Y

Suspected Spiller: CAMPBELLS SOUP
Mailing Address: 12-773 SR 110
NAPOLEON, OH 43545
Telephone: (000) 000-0000 **ext:**

Location: SR 110
Source: FIXED FACILITY - BUSINESS - OTHER
Cause: DISCHARGE/BYPASS TREATMENT SYSTE **Reason:** OTHER
Waterways Affected: N/A **Media Affected 1:** AIR
Media Affected 2: **Media Affected 3:**

Product(s) Spilled

Product	Amount	UOM	RQ	Size	Type	EHS
CHLORINE	40.0	LBS	.0	S	A	N

Other Agencies Notified

Agency	Person	Date	Time
RTK	BEATTIE	09/26/2001	10:17

Remark

FACILITY HAD A RELEASE FROM A 150 LBS CYLINDER, ONLY 35-40 LBS WAS RELEASED. FD RESPONDED AND EMERGENCY PROCEDURES WERE ACTIVATED. NO INJURIES. CALLER HAS ALSO TALKED TO OSC PULIDO IN NWDO. CALLER NOTIFIED LEPC, TIM WEAVER.

Campbell Soup -1994
12-773 SR 110, Napoleon OHD 005 419 171
Henry County MAIN PLANT DHWM

Smead®

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

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___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

Campbell's Soup

RECEIVED
DEC 19 1994
OHIO E.P.A.
N.W.D.O.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 0 8 1994

DEC 0 8 1994

REPLY TO THE ATTENTION OF:
HRE-8J

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Ray Oldach
Plant Manager
Campbell Soup Company
12 773 St. Rte. 110
Napoleon, Ohio 43545

Re: Boiler and Industrial Furnace
Small Quantity Burner Exemption
OHD 005 419 171

Dear Mr. Oldach:

The United States Environmental Protection Agency (U.S. EPA) is in receipt of your October 26, 1994, letter. Your letter requests that the Napoleon Campbell Soup Company facility be removed from U.S. EPA's list of hazardous waste burners under the Boiler and Industrial Furnace (BIF) small quantity burner exemption. U.S. EPA does not maintain such a list. Facilities operating under the BIF small quantity burner exemption are required pursuant to 40 CFR 266.108(d) to notify U.S. EPA of eligibility for the exemption. Campbell Soup Company did submit such a notification and this notification shall be retained in U.S. EPA files. In addition to retaining the notification, U.S. EPA will retain your October 26, 1994, letter stating that Campbell Soup Company will no longer be operating as a small quantity burner.

Should you have any questions feel free to contact Julianne Socha, of my staff, at 312/886-4436.

Sincerely yours,

Joseph M. Boyle

Joseph M. Boyle, Chief
RCRA Enforcement Branch

cc: Jeff Ferg, OEPA-NWDO
Gary Deutschman, OEPA-NWDO
Michael R. Terpinski, OEPA-NWDO

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Steers Henry Campbell's Soup

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

RECEIVED
FEB 03 1994

JAN 2 0 1994

REPLY TO THE ATTENTION OF:

HRE-8J

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Herbert H. Salsbury
Services and Utilities Manager
Campbell Soup Company
12 773 St. Rte. 110
Napoleon, Ohio 43545

Re: Campbell Soup Company
OHD 005 419 171

Dear Mr. Salsbury:

The United States Environmental Protection Agency (U.S. EPA) is in receipt of your August 26, 1993, submission in response to the Notice of Violation issued on August 2, 1993, by U.S. EPA regarding violations of 40 CFR Part 266 Subpart H. U.S. EPA has reviewed your submission and determined that Campbell Soup Company has returned to compliance with respect to the requirements found at 40 CFR 266.108(d)(3) and (e).

Should you have any questions feel free to contact Julianne Socha at (312) 886-4436.

Sincerely yours,

Joseph M. Boyle

Joseph M. Boyle, Chief
RCRA Enforcement Branch

cc: Michael Savage, OEPA-CO

RECEIVED
OHIO EPA
JAN 2 5 94
DIVISION of
HAZARDOUS WASTE MGT.

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Henry Campbells Soup

Campbell Soup Company

NAPOLEON, OHIO 43545

August 26, 1993

RECEIVED
SEP 9 1993
OHIO E.P.A.
N.W.D.O.

Ms. Julianne Socha
RCRA Enforcement Branch
Region V
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: **Notice of Violation**
Campbell Soup Company
OHD 005 419 171

Dear Ms. Socha:

Within the thirty (30) day time frame for response to the NOV, we are herewith providing you with the requested information. This is shown in the attached. Exhibit "A" is the revised Notification for the combustion of the spent solvent as a fuel supplement. Exhibit "B" is the detailed explanation of the terrain-adjusted effective stack height (TESH). Exhibit "C" is the heating value analysis of the spent solvent used as a fuel supplement.

We would like to bring to your attention the following facts. At the time of the original Notification of 8 August, 1991 the practice was to spread the spent solvent onto the adjacent coal pile. This was then burned in conjunction with coal as the fuel supplement. The quantity burned was approximately seven (7) gallons per day (140 gallons/20 days) with approximately 100 tons of coal. Therefore, the maximum fuel supplement firing rate was: seven (7) gallons/day times eight (8) lbs/gallon times 19,703 Btu/lb = 1,103,368 Btu. In contrast to coal of 2.6 X 10^{6}BTU, or 0.04% of the gross heat input.

The TESH used originally, although not strictly according to 40 CFR 266.108 (a)(1), by using just the physical height provides for a very conservative quantity of spent solvent as a fuel supplement. Exhibit "B" shows actually by the USEPA procedures, a greater quantity is allowed under 266.108(a)(1).

The practice of placing the spent solvents on the coal pile was discontinued in January of 1993. The spent solvents are now placed into a receiving tank at the boiler plant and used as a fuel supplement in the oil fired #3 boiler. This allows the boiler operator the ability to control the firing rates of the spent solvent as a fuel supplement. Also, we would like to emphasize that a plant initiated intensive waste minimization program, since January, has been implemented. This has appreciably reduced the quantity of spent solvent used as a fuel supplement. We will however, maintain the capability of using spent solvents as a fuel supplement.

Exhibit "B" reflects the physical conditions of boiler #3 stack in calculating the TESH. The physical terrain features for the 5 kilometer radius is from the attached USGS 7.5 minute quadrangle.

RECEIVED
SEP 1 1
DIV.

The pumping rate of the spent solvent is 3.9 gallons per hour. With a heating value of 19,703 Btu/lb, the hourly gross heat input is 507,155 Btu/hr. The ratio of spent solvent to fuel oil is 0.5% to 0.8%, based on steam load. This is well within the 1% exemption criteria of 266.108(a)(2).

We appreciate this opportunity to set the record straight. Should you have any questions in this regard, please feel free to contact me at 419-592-1010 extension 6601.

Sincerely,

CAMPBELL SOUP COMPANY

L. M. Brown
Plant Manager

LMB/cag

cc: Mr. Michael Savage, OEPA-Columbus
Mr. H. H. Salsbury

Campbell SOUP Company

NAPOLEON, OHIO 43545

August 26, 1993

Mr. Joseph M. Boyle, Chief
RCRA Enforcement Branch
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard (HRE-8J)
Chicago, IL 60604

RE: **Regulation of the Burning of Hazardous Waste in Boilers and Industrial Furnaces**

Dear Mr. Boyle:

As requested in your NOV notice to us dated August 2, 1993, this letter is our revised notification pursuant to 40 CFR 266.108(d).

1. Campbell Soup Company #3 boiler will operate as a small quantity burner of hazardous waste.

2. The boiler will be operated in compliance with the requirements of section 40 CFR 266.108:

   (a) The maximum hazardous waste burned will not exceed at any time one (1) percent of total fuel requirements.

   (b) The hazardous waste will have a minimum heating value of 5,000 BTU/Lb.

   (c) The hazardous waste will not contain E.P.A. Hazardous Waste No's F020, F021, F022, F023, F026 or F027.

3. The quantity of hazardous waste burned will not exceed the limits as defined in 266.106(b)(3). The TESH of our boiler is 56.4 meters which provides a maximum quantity of 400 gallons per month of hazardous waste that may be burned.

Sincerely,

CAMPBELL SOUP COMPANY

L. M. Brown
Plant Manager

LMB/cag

cc: Michael Savage, OEPA-Columbus
Herbert H. Salsbury

Exhibit "B"

Calculation of the TESH for #3 boiler.

Determination of GEP from 40 CFR 15.100(hh)(2)(v)(ii) the GEP is defined as:

(1) 65 meters, measured from the ground-level elevation of the base of the stack,

or

(2)(i) for stacks in existence on January 12, 1979, $H_g = 2.5\ H$

2)(ii) for all other stacks, $H_g = H + 1.5\ L$; where L = 64 meters for the next highest structure.

For this stack, the height is 30.8 meters. This height was chosen due to the height of the adjacent water treatment building which has a ground elevation of 6.2 meters higher than the grade elevation at the boiler house, with a building height of 24 meters. The overall effective height of the building relative to the boiler stack is 30.2 meters.

Stack gas conditions:
Temperature = 513°F or 540°K
Gas flow rate = 54,000 acfm or 25.38 m^3/sec.

$TESH = H_a + H_1 - T_r$

where H_a = 30.8 meters
H_1 = 29 meters from Appendix VI
T_r = 3.4 meters from USGS map

$TESH = 30.8 + 29 - 3.4$
$= 56.4$ meters

From 266.108(a)(1) the Exempt Quantities for Small Quantity Burner Exemption for a TESH of 56.4 meters; 400 gallons per month.

Napoleon BIF Compliance

Conversion factors to determine the terrain-adjusted effective stack height.

Temperature: Convert °F to °K = (5/9) ($T_{°F}$ + 459.68)

Gas Flow rate: Convert acfm to M^3/sec = (ft^3/min) (min/60 sec) (0.02832 M^3/ft^3)

Tr: This is a terrain adjustment factor, for height within 5 kilometers (three miles) of stack and takes into account the nature of land use within this range.

The typical land use within this range is rual. The typical elevation differential within this range is less than 4 meters.

TESH = Ha + H_1 - Tr
Where Ha is physical height in meters.
H_1 is the plume rise from Appendix V1

EXHIBIT "C"

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (708) 953-9300
SINCE 1908
Member of the SGS Group (Société Générale de Surveillance)

August 20, 1993

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 8217, STATION A, TOLEDO, OHIO 43605
TELEPHONE: (419) 698-8049
FAX: (419) 698-8242

CAMPBELL SOUP COMPANY
State Route # 110
P.O. Box 311
Napoleon OH 43545
Mr. Herbert Salsbury

Sample identification by
CAMPBELL SOUP COMPANY

IDENT: -1) SAMPLE # 1
"O" THINNER, 8/11/93

-2) SAMPLE # 2
"O" THINNER, 8/11/93
DEGREASER # 13

-3) SAMPLE # 3
"O" THINNER, 8/11/93
DEGREASER # 9

Kind of sample reported to us Solvent

Sample taken at -----

Sample taken by Submitted

Date sampled ------

Date received August 12, 1993

Analysis report no. 91-08385

UNCORRECTED AS RECEIVED BTU/LB

LAB NUMBER	IDENTITY	DATE	BTU/LB
91-08385-1	SAMPLE # 1 "O" THINNER	08/11/93	19798 — NEW
91-08385-2	SAMPLE # 2 "O" THINNER DEGREASER # 13	08/11/93	19771 - AS GENERATED
91-08385-3	SAMPLE # 3 "O" THINNER DEGREASER # 9	08/11/93	19634 - AS GENERATED

AVE. = 19,703 - AS GENERATED

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Toledo Laboratory

5
nal Watermarked For Your Protection
TERMS AND CONDITIONS ON REVERSE

Mike Sandy Henry Campbells Soup

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

RECEIVED
AUG 25 1993
OHIO E.P.A.
N.W.D.O.

AUG 02 1993

RECEIVED
OHIO EPA
AUG 09 1993
DIV. OF HAZARDOUS WASTE MGT

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Herbert H. Salsbury
Services and Utilities Manager
Campbell Soup Company
12 773 St. Rte. 110
Napoleon, Ohio 43545

HRE-8J

Re: Notice of Violation
Campbell Soup Company
OHD 005 419 171

Dear Mr. Salsbury:

On May 19, 1993, the United States Environmental Protection Agency (U.S. EPA), Region V performed a Boiler and Industrial Furnace (BIF) compliance evaluation inspection at the Campbell Soup Company (Campbell) located 1/4 mile off Route 110 in Napoleon, Ohio. The purpose of this inspection was to evaluate Campbell's compliance with the requirements of 40 CFR Part 266 Subpart H. Upon review of the inspection findings and information contained in U.S. EPA files Campbell has been determined to be in violation of the following requirements of 40 CFR Part 266 Subpart H.

- Campbell failed to provide a notification pursuant to 40 CFR §266.108(d) which provides the maximum quantity of hazardous waste that the facility may burn per month as provided by 40 CFR §266.108(a)(1). Rather than providing the maximum quantity of hazardous waste, which is a function of terrain-adjusted effective stack height, Campbell provided a quantity of hazardous waste as a function of physical stack height. This is a violation of 40 CFR §266.108(d)(3).

- Campbell failed to have sufficient records documenting compliance with the minimum heating value limit of 5000 Btu/lb, as generated, for hazardous waste. This is a violation of 40 CFR §266.108(e).

Within thirty (30) days of receipt of this Notice of Violation Campbell shall submit the following information in order to demonstrate compliance with 40 CFR §§266.108(d)(3) and 266.108(e).

- A revised notification pursuant to 40 CFR §266.108(d) which provides the maximum quantity of hazardous waste that the facility may burn per month as provided by 40 CFR §266.108(a)(1).

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- An explanation of how the terrain-adjusted effective stack height, in meters, was calculated.

- Analysis providing the heating value (Btu/lb) of the hazardous waste, as generated, which is burned in the BIF.

The above information shall be submitted to the United States Environmental Protection Agency, Region V, RCRA Enforcement Branch, Attention: Julianne Socha, 77 W. Jackson Boulevard (HRE-8J), Chicago, Illinois 60604.

In addition to the violations discussed above the May 19, 1993, inspection results indicate that Campbell was placing spent solvents on an outside coal pile. This practice of placement of spent solvents to the coal pile is unacceptable. Information collected during the May 19, 1993, inspection regarding the spent solvents has been referred to the Ohio Environmental Protection Agency for further investigation.

If you have any questions regarding this Notice of Violation feel free to contact Julianne Socha at (312) 886-4436.

Sincerely yours,

Paul E. Dennis

for Joseph M. Boyle, Chief
RCRA Enforcement Branch

cc: Michael Savage, OEPA-CO

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

Date: June 20, 1993

Subject: Final BIF Inspection Report
Campbell Soup Company, Napoleon, Ohio

From: Jae B. Lee
Hazardous Waste combustion Inspector, Region V

To: File

Inspection Date : May 19, 1993

Inspection Participants:	Jae B. Lee	(U.S. EPA)
	Herbert H. Salsbury	(Campbell soup Co.)

Facility : Campbell Soup Company
1/4 Mile off Route 110
Napoleon, Ohio 43545

OHD 005 419 171
(419) 592-1010

Responsible Official of Campbell Soup Co.:

Herbert H. Salsbury: Manager, Services & Utilities

Applicable Regulations:

40 C.F.R. Parts 266.108 : Small Quantity Burner Exemptions

Purpose of Inspection:

This inspection is a routine Compliance Evaluation Inspection of Campbell Soup Company, Napoleon, Ohio, pursuant to Section 3007 of RCRA, for the evaluation of Campbell's compliance with the requirements of RCRA and the newly promulgated regulations concerning the burning of hazardous waste and other related activities of Boilers and Industrial Furnaces (BIFs) published in 40 C.F.R. Part 266 Subpart H.

(I) Facility Description

Campbell Soup Company (Campbell) generates spent solvent liquid waste (mostly "O" thinner) as a result of its maintenance activities. This waste material was burned in the two coal-fired boilers with one common stack at Campbell facility to produce steam. Waste solvent collected from the various parts maintenance locations were brought to the coal pile in the 50-gallons can. Campbell indicated that there are 22 parts maintenance locations in the facility and each maintenance location generates approximately up to 50 gallons of waste solvent. The collected waste solvent was manually spread (walking through at the top of coal pile) at the top of coal pile located in the yard. It was not known how well the waste solvent was mixed with coal pile (i.e., the degree of uniform mixing with total mass of coal). Based on the operating log, up to 140 gallons per month of waste solvent was generated and spread over the coal pile. However, it was not known whether all of these 140 gallons of waste were generated at one time or at different time within the month. Campbell has indicated that there were usually 3,000 Tons of coal in the yard. Approximately 100 Tons of coals were used to be burned in the boilers daily and 100 Tons of coals were brought into the coal pile daily. According to the Campbell's historical operating log, approximately 20 to 140 gallons per month of liquid hazardous waste were burned from September 1991 to January 1993. Due to the internal waste recycling program, no waste has been generated since January of 1993 (the exact date was not known). Since waste solvent was carried to the coal pile as it generated, no waste solvent was stored at the facility.

There was no monitored or recorded firing rate of hazardous waste available at the facility. Therefore, the determination whether the maximum hazardous waste firing rate have exceeded at any time 1 percent of the total fuel requirements could not be made. Based on the worst possible scenario, it can be assumed that the maximum hazardous waste (140 gallons) was generated at the same time and spread over only portion of daily usage coal pile (around 100 Tons of coal). Based on the 8.0 Ib/gallon waste density, the 1 percent firing rate of hazardous waste would be 253 gallons (based on the above worst possible scenario). If the waste solvent was spread over very small amount of coal, then it is possible that the firing rate of hazardous waste might have exceeded the 1 percent criteria. Since the heating values of coal (around 13,000 Btu/Ib) and waste solvent (17,000 Btu/Ib) were similar, it is expected that the maximum hazardous waste firing rate would not exceed 1 percent of the total fuel requirements on a total heat input. The Material Safety Data Sheet indicates that "O" thinner has heating value as 17,300 Btu/Ib.

Campbell has indicated that used oil generated at the facility was burned in the boiler #3 (oil-fired boiler). In October 1991, Campbell has analyzed used oil to determine whether used oil can be managed as non-hazardous waste. Due to the lower flash point, used oil was considered as hazardous waste and spread over coal pile. Campbell indicated that used oil was analyzed again and showed higher flash point than 140 F. Since then, according to the Campbell, used oil has been burned in the boiler #3. The second analysis of used oil was not reviewed.

On August 19, 1991, Campbell submitted the Small Quantity Burner (SQB) Notification to U.S. EPA. The physical stack height was estimated as 30 meters and the maximum quantity of hazardous waste to be burned was determined as 140 gallons per month (from §266.108 (a)(1)).

(II) Inspection Findings and Observed Violations

On May 19, 1993, U.S. EPA performed a BIF Compliance Inspection at Campbell to determine Campbell's compliance with the limits and conditions specified in the SQB Exemption and other requirements of the BIF regulations.

During the inspection, the following potential problems were observed:

(a) Inadequate SQB Notification

40 CFR 266.108 (a)(1) : The quantity of hazardous waste burned in a device for a calendar month does not exceed the limits provided in the following table based on the terrain-adjusted effective stack height as defined in section 266.106(b)(3) :

In the Notification submitted on August 19, 1991, Campbell has failed to determine the terrain-adjusted effective stack height. Campbell has used the physical stack height of 30 meters, and the maximum hazardous waste to be burned in the boilers was determined as 140 gallons per month based on the physical stack height. (See Attachment 1)

During the inspection, Campbell has provided that the exit gas flow rate is 44,000 ACFM (21 CMS) and exit gas temperature is 465 F (513 K). (The plume rise determined from Appendix VI is 27 meters.) Since this facility is located in the generally flat area (based on the visual observation), it is not expected to have higher terrain rise within 5 kilometers of the facility in order to result in the significant reduction of terrain-adjusted

effective stack height. (There was no information available at the facility about the terrain rise within 5 kilometers of the facility.) If necessary, information request can be made to Campbell for topography map within 5 kilometers of the facility. Such information can be used to determine the allowable maximum hazardous waste burning rate and any potential exceedences.

Attachment 1 : SQB Notification
Attachment 2 : Inspection Check-List

Henry 6

RECEIVED

AUG 16 1993

OHIO E.P.A.
N.W.D.O.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

AUG 03 1993

HRE-8J

Ms. Pam Allen
Division of Hazardous Waste Management
Central Office
Ohio Environmental Protection Agency
P.O. Box 1049
1800 WaterMark Drive
Columbus, Ohio 43266-1049

Dear Ms. Allen:

Enclosed please find a copy of a June 20, 1993, Boiler and Industrial Furnace (BIF) Inspection Report for Campbell Soup Company (Campbell Soup), Napoleon, Ohio, EPA I.D. No. OHD 005 419 171. During the BIF inspection conducted by the United States Environmental Protection Agency on May 19, 1993, it was discovered that Campbell Soup was placing spent solvents on an outside coal pile prior to burning the spent solvents and coal in a boiler.

This inspection report is being transmitted to the Ohio Environmental Protection Agency (OEPA) in order for OEPA to evaluate the compliance of Campbell Soup with applicable provisions of the Ohio Administrative Code rules for treatment, storage, and disposal facilities along with applicable Land Disposal Restrictions. Thank you for your attention to this matter.

Sincerely yours,

Kevin M. Pierard, Chief
MN/OH Technical Enforcement Section

Enclosure

cc: David Sholtis

RECEIVED
OHIO EPA
AUG 06 93
DIVISION of
HAZARDOUS WASTE MGT.

Printed on Recycled Paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

Date: June 20, 1993

Subject: Final BIF Inspection Report
Campbell Soup Company, Napoleon, Ohio

From: Jae B. Lee
Hazardous Waste combustion Inspector, Region V

To: File

Inspection Date : May 19, 1993

Inspection Participants:	Jae B. Lee	(U.S. EPA)
	Herbert H. Salsbury	(Campbell soup Co.)

Facility : Campbell Soup Company
1/4 Mile off Route 110
Napoleon, Ohio 43545

OHD 005 419 171
(419) 592-1010

Responsible Official of Campbell Soup Co.:

Herbert H. Salsbury: Manager, Services & Utilities

Applicable Regulations:

40 C.F.R. Parts 266.108 : Small Quantity Burner Exemptions

Purpose of Inspection:

This inspection is a routine Compliance Evaluation Inspection of Campbell Soup Company, Napoleon, Ohio, pursuant to Section 3007 of RCRA, for the evaluation of Campbell's compliance with the requirements of RCRA and the newly promulgated regulations concerning the burning of hazardous waste and other related activities of Boilers and Industrial Furnaces (BIFs) published in 40 C.F.R. Part 266 Subpart H.

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On May 19, 1993, U.S. EPA performed a BIF Compliance Inspection at Campbell to determine Campbell's compliance with the limits and conditions specified in the SQB Exemption and other requirements of the BIF regulations.

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Attachment 1 : SQB Notification
Attachment 2 : Inspection Check-List

Attachment 1 : SQB Notification



CAMPBELL SOUP COMPANY
NAPOLEON, OHIO
419-592-1010

TO ATTENTION OF Joe Lee

COMPANY NAME AND LOCATION

PHONE NO.

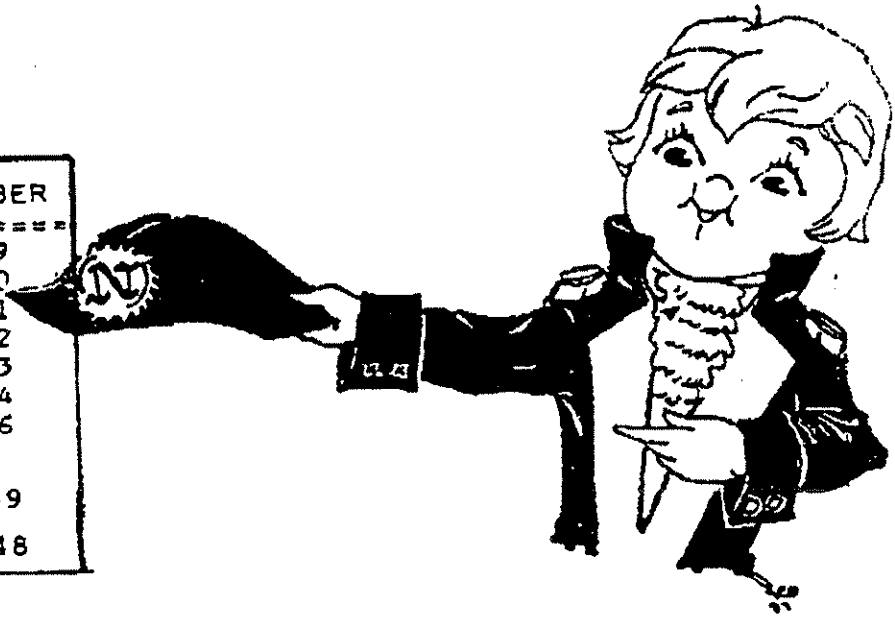
NUMBER OF PAGES BEING SENT INCLUDING COVER PAGE 2

FROM Herb Salsbury EXT.

DEPARTMENT NAME

ANY PROBLEMS PLEASE CALL 419-592-1010 AND ASK FOR PERSON OR DEPARTMENT SENDING MESSAGE

AREA	FAX NUMBER
ACCOUNTS PAYABLE	599-6669
ENGINEERING	599-6670
GENERAL ACCOUNTING	599-6671
GENERAL USE	599-6672
LOGISTICS	599-6673
BEVERAGE PLANT	599-6674
PURCHASING	599-6676
QUALITY ASSURANCE	599-6680
INVENTORY ACCT	599-6749
STOREROOM MAINT.	599-6748



Napoleon Plant

Campbell SOUP Company

NAPOLEON, OHIO 43545

August 19, 1991

Mr. Gary Victorine (5HR-13)
U.S. Environmental Protection Agency, Region 5
230 S. Dearborn Street
Chicago, Illinois 60604

Dear Mr. Victorine:

RE: **Regulation of the burning of hazardous waste in boilers and industrial furnaces.**

Effective August 21, 1991, the Napoleon Campbell Soup Company facility will be exempt under the small quantity on-site burner exemption. We have made many changes in our operation this past year such as eliminating enamels, recycling solvents, and reducing waste which will allow us to meet this exemption. Based on stack height of thirty meters, we will limit our burning to the allowable 140 gallons per calendar month. The waste burned:

a. Will not exceed 1% of the total fuel requirements of the boiler.
b. Will have a minimum BTU value of 5,000 BTU/lb. as generated.
c. Will not contain hazardous waste no.'s F020, F021, F022, F023, F026, or F027.

Any waste produced over the 140 gallon per month will be removed from the property under R.C.R.A. regulations.

Sincerely,

CAMPBELL SOUP COMPANY

Barry M. Brown
Plant Manager

Attachment 2 : Inspection Check-List

Campbell Soup Co.)
Napoleon, Ohio

IX. SMALL QUANTITY BURNERS

SMALL QUANTITY BURNERS - §266.108

	Yes	No	Comments
1. Did the facility inform EPA with a one-time written notice indicating the following as required by 40 CFR §266.108(d)	✓		
a. The combustion unit is operating as a small quantity burner of hazardous waste	✓		
b. The owner and operator are in compliance with the requirements of this section; and	✓		
c. The maximum quantity of hazardous waste that a facility may burn per month as provided in §266.108(a)(1)?	✓		No Terrai-adjusted-effective stack height was determined Used the physical stack height as the stack height

2. How many stacks does the facility have? One common stack for two coal-fired boilers
(NOTE: If facility burns hazardous waste in more than one on-site boiler or furnace exempt under this part, the quarterly limits are implemented according to the following equation found in §266.108(c):

$$\sum_{i=1}^{n} \frac{\text{Actual Quantity Burned (i)}}{\text{Allowable Quantity Burned (i)}} < 1.0)$$

→ There is one common stack for four Boilers.

3. What is the total height of the stacks? 30 metres (physical height)

IX. SMALL QUANTITY BURNERS(§266.108)

BIF INSPECTION CHECKLIST

4. What is the terrain adjusted effective stack height (TESH) as defined in §266.106(b)(3)?

$$TESH = H_A + H_I - T_r$$

H_A = actual physical stack height
H_I = Plume rise as determined from Apx VI of Part 266 as a function of stack flow rate and stack exhaust temperature
T_r = Terrain rise within 5 kilometers of the stack

30 meters
plume Rise (H_I) was calculated as > 7 meters.
(T_r is not expected to be greater than 7 m due to the flat area)

5. From the table in §266.108(a), how much hazardous waste is the facility allowed to burn per month?

140 gallons/month.

6. How much hazardous waste does the facility burn per month (See Question #11)?
NOTE: The amount of hazardous waste that can be burned by a small quantity burner is a function of the stack height of the burner (See Question 5)

≈ 140 gallons/month.

7. a. What is the percentage of hazardous waste in SQB's fuel?

< 1%

b. Does it exceed 1%?
NOTE: In order to qualify for this exemption, the maximum hazardous waste firing rate an not exceed, at any time, 1 percent of the total fuel requirements for the device (hazardous waste plus other fuel) on a volume basis (266.108(a)(2)).

NO.

8. What is the minimum heating value of the hazardous waste as generated (266.108(a)(3))?
NOTE: To qualify for this exemption, the hazardous waste must have a minimum heating value of 5000 Btu/lb, as generated.

> 5,000 Btu/lb.

(See attachment 3)

IX. SMALL QUANTITY BURNERS (§266.108)

BIF INSPECTION CHECKLIST

	Yes	No	Comments
9. Did the facility perform waste analysis?	✓		for heat value and other parameters. See attachment 3.
10. Does the hazardous waste contain or is it derived from EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027? NOTE: The hazardous wastes listed above are dioxin or dioxin-derived hazardous waste and may not be burned in a BIF unit (§266.108(a)(4)).		✓	

11. Conduct the following verification steps:

Parameter	Allowable	Observed	Comments
a. Quantity of hazardous waste burned in a calendar month - based on TESH* and limits in §266.108(a)(1)	140 gallons/HR	≤140 gallons/month.	
b. Minimum heating value	5,000 Btu/lb	>5,000	
c. Content in hazardous waste of F020, F021, F022, F023, F026 or F027	0	0	
d. Maximum hazardous waste firing rate as percentage of total fuel requirements	1%	<1%	

* TESH - Terrain Adjusted Effective Stack Height (See Question #4 to this section)

12. Storage: Check the facility records for the following information:

	Yes	No*	Comments
a. Is hazardous waste stored on-site?		✓	short period of time < 1 month.
b. If yes, is it hazardous waste other than the 1% fuel mixture stored in units other than tanks that feed fuel directly to the burner?	[1]		

If the waste is accumulated in accordance with the generator accumulation provisions of §262.34, refer to OSWER Directive No. 9938.2A, RCRA Inspection Manual, Containers Checklist

If the hazardous waste is stored in regulated storage units, refer to the appropriate Part 264/265 checklists in OSWER Directive No. 9938.2A, RCRA Inspection Manual

* **Potential Violation**

[1] If yes, units must comply with 40 CFR Part 264 or Part 265 requirements, whichever are appropriate.

13. Recordkeeping Requirements (§266.108(e))

	Yes	No	Comments
Does the facility have records documenting:			
a. Hazardous waste quantity burned per month? (Does the facility comply with limits set in Questions 5 and 6?)	✓		
b. Firing rate?	✓		
c. Heating value of hazardous waste?	✓		

STACK DATA

16. Your stack identification #1 & #2 Boilers

17. Are other sources vented to this stack? ☒ Yes ☐ No
If yes, identify sources #2 Boiler

18. Type: Round, top inside diameter dimension 6.5
Rectangular, top inside dimensions (L)____ x (W)____

19. Height: Above roof 26.2 ft., above ground____ ft.

20. Exit gas: Temp. 465 °F, Volume 44,000 ACFM, Velocity 2,460 ft./min.

21. Continuous monitoring equipment ☒ Yes ☐ No
If yes, indicate type Opacity, Manufacturer Lear Siegler
Make or Model RM41, Pollutant(s) monitored Particula

22. Emission data: Emissions from this source have been determined and such data is included with this appendix: ☐ Yes ☒ No
If yes, check method: ☐ Stack Test ☐ Emission factor

New stack test will be completed within 60 days and results forwarded to E.P.A.

Completed by H.H. Salsbury, Date Dec. 199

$$44{,}000 \frac{ft^3}{min} \times \left(\frac{1\,m}{3.281\,ft}\right)^3 \times \frac{1\,min}{60\,sec} = 20.8 \frac{m^3}{sec}$$

$$465\,^\circ R = \frac{(465\,^\circ F - 32)}{1.8} + 273.15 = 513\,K$$

[illegible]

DATE	GALLONS DUMPED	RUNNING TOTAL	AREA FROM	PERSON DUMPING	APPROVED BY
1-9-91	30	30	Main Plant Service	Eddy Bevins	[illegible]
		Coal burned = 8,045,000 Lbs		8/91	
10-24-91	60	60	Plant Service	Eddy Bevins	[illegible]
28	80	140	* [illegible] oil tank	RHM	[illegible]
		Coal Burned = 9,243,600		10/91	
11-30	140	140	* [illegible] tank	[illegible]	[illegible]
		Coal Burned = 6,801,000 lbs		11/91 * Info in Herbs file BTU/Lb = 5,808	
12-13	20	20	Filling depot	Bob Allen	[illegible]
		Coal Burned = 5,955,000 Lbs		12/91	
1-31-92	60	60	Container	Caroline	RHM
		Coal burned = 8,265,000 lbs		1/92	
2-7-92	20	20	"	"	RHM
2-12-92	5	25	Plant Service	Eddie Bevins	RHM
2-17-92	15	40	Container	Caroline	RHM
		Coal burned 6,242,700 lbs		2/92	
7-2-92	25	25	Plant Service	Eddy Bevins	RHM
		Coal burned 5,259,200 lbs		7/92	
8- -92	40	40	V8 D&I	Dave Alsbrook	RHM
		Coal burned 7,321,300 lbs		8/92	
9-2-92	40	40	V8 D&I	Dave A.	RHM
9-14-92	12	52	Container	Marchant	RHM
9-23-92	2	51	[illegible]	[illegible]	[illegible]
9-29	40	94	V8 D&I	Dave A.	RHM
		Coal burned = 7,731,600 lbs 9/92			
10-28	30	80	V8 D&I	[illegible]	RHM
		Coal burned = 8,406,800 lbs		10/92	



SOLVENTS AS FUEL

DATE	GALLONS DUMPED	RUNNING TOTAL	FROM AREA	PERSONS DUMPING	APPROVED BY
12-9-92	30	30	Container	Caroline	RAM
12-26-92	70	100	E D+1	Dave A (Coal burned 12/92 = 6,761,400)	RAM
1-5-93	55	55	E "	"	RAM

Coal burned 7,228,000 lbs 1/93

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (708) 953-9300
Member of the SGS Group (Societe Generale de Surveillance)

October 22, 1991

PLEASE ADDRESS ALL CORRESPONDENCE TO:
6130 VAN DRUNEN RD., P.O. BOX 127
SOUTH HOLLAND, IL 60473
TELEPHONE: (708) 331-2900
FAX: (708) 333-3060

CAMPBELL SOUP COMPANY
Box 311
Napoleon, OH 43545
ATTN: H. Salsbury

Sample identification by
Campbell Soup Company

Kind of sample reported to us: Oil

Sample taken at: Campbell Soup Company

Sample taken by: Campbell Soup Company

Date sampled: September 30, 1991

Date received: October 10, 1991

Sample ID: Used Oil - #1
Tank Bottoms
Date: 9/30/91

sent on coal piles as hazardous waste

Invoice No.: 4-63863
P.O. No. 004-030308

Analysis Report No. 71-21254

	As Received		Limits
* FLASH POINT, PENSKY-MARTENS	136° F		140 or ABOVE
% TOTAL HALOGENS	0.05	= ppm	1000 MAX
HEATING VALUE Btu/lb	5,898		5,000 or ABOVE.

* **Note:** Very poor Flash Point

Cannot burn as Non-Regulated Oil too much water + solvent. Flash Point below 140°

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Manager, South Holland Laboratory

COAL

1st - 1/4 1993

As Is			Dry		
ASH	S	BTU	ASH	S	BTU
6.55	3.23	12,555	7.10	3.50	13,608
7.92	2.97	11,845	8.75	3.28	13,087
6.77	2.67	12,666	7.24	2.86	13,560
5.74	2.59	12,503	6.28	2.78	13,438
6.18	3.31	12,122	6.82	3.65	13,371
5.82	2.81	12,815	6.24	3.01	13,735
5.73	2.97	12,767	6.18	3.20	13,762
7.14	4.57	12,494	7.70	4.93	13,475
6.62	2.75	12,598	7.15	2.97	13,611
6.51	3.10	12,485	6.98	3.35	13,516

Coal

4 +4 - 1/4 1992

As Is			Dry		
Ash	S	BTU	Ash	S	BTU
5.84	2.82	12,864	6.26	3.02	13,782
6.86	3.60	12,577	7.41	3.89	13,579
5.97	2.73	12,885	6.39	2.92	13,798
8.63	3.93	12,102	9.40	4.28	13,183
6.20	2.72	12,534	6.69	2.92	13,525
5.50	3.08	12,735	5.90	3.30	13,670
5.40	2.19	12,608	6.42	2.38	13,721
7.53	3.08	12,459	8.12	3.32	13,443
4.22	3.08	12,884	4.57	3.34	13,957
6.29	3.03	12,628	6.90	3.26	13,629

COAL

3rd 1/4 1992

As Is			Dry		
Ash	S	BTU	As	S	BTU
6.17	3.04	12,907	6.53	3.22	13,678
5.92	2.85	12,549	6.29	3.03	13,757
8.17	4.61	12,334	8.73	4.92	13,180
6.16	3.84	12,586	6.60	4.12	13,493
5.73	2.80	12,868	6.10	2.98	13,700
5.97	1.80	12,779	6.27	1.92	13,641
4.82	3.00	12,931	5.17	3.22	13,877
6.14	2.95	12,786	6.55	3.14	13,625
7.58	2.92	12,641	8.05	3.10	13,422
6.30	3.09	12,753	6.49	3.29	13,587

COAL

2nd 1/4 1992

AS IS			DRY		
ASH	S	BTU	ASH	S	BTU
4.20	3.35	12,795	4.53	3.61	13,803
6.57	2.48	12,[illegible]	7.06	2.67	13,496
7.45	3.67	12,5[illegible]	7.96	3.92	13,412
5.71	2.20	12,976	6.08	2.34	13,809
6.35	3.29	12,565	6.86	3.55	13,568
5.29	2.68	12,868	6.27	2.85	13,682
6.03	2.95	12,717	6.46	3.16	13,628

Coal

1st 1/4 1992

As Is			Dry		
Ash	S	BTU	Ash	S	BTU
6.04	3.88	12,893	6.56	4.21	13,568
6.08	2.79	12,624	6.56	3.01	13,620
5.82	2.98	12,661	6.27	3.22	13,674
8.31	2.47	12,392	8.94	2.66	13,332
3.51	2.93	12,964	3.82	3.19	14,122
7.34	3.39	12,607	7.88	3.64	13,541
6.18	3.08	12,624	6.67	3.32	13,643

MATERIAL SAFETY DATA SHEET

Shell

MSDS NUMBER ▶ 7,550-7 PAGE 1

97367 (4-85)

24 HOUR EMERGENCY ASSISTANCE	GENERAL MSDS ASSISTANCE
SHELL: 713-473-9461 CHEMTREC: 800-424-9300	SHELL: 713-241-4819

BE SAFE
READ OUR PRODUCT SAFETY INFORMATION ... AND PASS IT ON
(PRODUCT LIABILITY LAW REQUIRES IT)

ACUTE HEALTH *	FIRE	REACTIVITY	HAZARD RATING ▶
2	2	0	LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4

*For acute and chronic health effects refer to the discussion in Section III

SECTION I

NAME

PRODUCT ▶	MINERAL SPIRITS 135
CHEMICAL NAME ▶	NOT APPLICABLE
CHEMICAL FAMILY ▶	HYDROCARBON SOLVENT
SHELL CODE ▶	83048

4 OIL THINNER

NO F020 F021 F022 F023 F024 F027

SECTION II-A PRODUCT/INGREDIENT

NO.	COMPOSITION	CAS NUMBER	PERCENT
P	MINERAL SPIRITS 135	MIXTURE*	100
1	SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC	64742-88-7	>85
2	SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	<15
--	----------TYPICAL DISTRIBUTION----------	----------	----------
.	PARAFFINS	NOT APPL.	45.9
.	NAPHTHENES	NOT APPL.	40.3
.	TOTAL AROMATICS	NOT APPL.	13.8
.	(TRIMETHYLBENZENE ..... 5-7%)	25551-13-7	--
.	(ETHYLTOLUENE ..... 0.6-0.9)	25550-14-5	--
.	OLEFINS	NOT APPL.	<0.1

*A COMPLEX COMBINATION OF PREDOMINATELY C8-C12 HYDROCARBONS; EXACT COMPOSITION WILL VARY.

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	NOT AVAILABLE		
1*	>25 ML/KG (RAT)	>4 ML/KG (RABBIT)	>700 PPM/4H (RAT)
2*	4.7 G/KG (RAT)	>4 ML/KG (RAT)	>3670 PPM/8H (RAT)

*BASED UPON TESTING OF EITHER PRODUCT OR ESSENTIALLY SIMILAR PRODUCTS.

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT
LIQUID IS MINIMALLY IRRITATING TO THE EYES. HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION.

SKIN CONTACT
LIQUID IS SLIGHTLY IRRITATING TO THE SKIN. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

(RUN 07/18/91)

SAFETY-KLEEN CORP.
PREQUALIFICATION EVALUATION
MATERIAL ANALYSIS

COMPLETE: 07/18/91
CONTROL#: 0102253-9
SAMPLE# : 127172

ACCEPT
NO ATTACHMENT

RECOVERY
BELL SOUP CO

** FLUID RECOVERY **

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	DARK BROWN
WATER CONTENT	:	0.4 WT%
NON-VOLATILE RESIDUE	:	8.2 WT% DESCRIPTION: OIL
FLAMMABILITY	:	FLASHED AT 100 F BY SETAFLASH
FLAMMABILITY	:	FLASHED AT 140 F BY SETAFLASH
PH SCREEN:		7.0
PH	:	EXTRACT BY METER 6.4
RADIOACTIVITY	:	NONE DETECTED

COMMENTS: SMALL AMOUNT OF LIGHT BROWN SOLIDS ON BOTTOM

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT:		17300 BTU/LB			
TOTAL FLUORINE	F : <	0.1 WT%	ASH UPON COMBUSTION: <		0.1 WT%
TOTAL BROMINE	BR: <	0.1 WT%	TOTAL CHLORINE	CL: <	0.1 WT%
			TOTAL SULFUR	S : <	0.1 WT%

"0" Thinner

BTU/Lb

SECTION VII PHYSICAL DATA

BOILING POINT: 330-390 (DEG F)

SPECIFIC GRAVITY: 0.79 (H2O=1)

VAPOR PRESSURE: 16*@100 DEG. (MM HG)

MELTING POINT: NOT AVAILABLE (DEG F)

SOLUBILITY: (IN WATER) NEGLIGIBLE

VAPOR DENSITY: 4.8* (AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): <0.1*

*ESTIMATED

APPEARANCE AND ODOR:
LIGHT COLORED LIQUID. HYOROCARBON DOOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:
114 DEG. F (TCC)

FLAMMABLE LIMITS /% VOLUME IN AIR
LOWER: 1 UPPER: 6

EXTINGUISHING MEDIA
USE WATER FOG, FOAM, ORY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SUFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS
CAUTION. COMBUSTIBLE. OD NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS
CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILOUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO OIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

SECTION IX REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNOS MAY BE FORMED DURING COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING
AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT.

ITIONAL PROTECTIVE MEASURES
EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. AIR-DRY CONTAMINATED THING IN A WELL VENTILATED AREA, THEN LAUNDER BEFORE REUSING.

TION XI ENVIRONMENTAL PROTECTION

LL OR LEAK PROCEDURES
TION. COMBUSTIBLE. *** LARGE SPILLS *** ELIMINATE POTENTIAL SOURCES OF IGNITION. WEAR ROPRIATE RESPIRATOR AND OTHER PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP IDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING TAINERS AND SEAL TIGHTLY FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; POSE OF FLUSH SOLUTION AS ABOVE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND CE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.

TION XII SPECIAL PRECAUTIONS

P LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY ITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY UMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. P CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.

TAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, ND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS.

TIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND ND TRANSFER CONTAINERS AND EQUIPMENT.

TION XIII TRANSPORTATION REQUIREMENTS

RTMENT OF TRANSPORTATION CLASSIFICATION:
USTIBLE LIQUID

T. PROPER SHIPPING NAME:
OLEUM NAPHTHA

R REQUIREMENTS:
255. GUIDE SHEET 27.

TION XIV OTHER REGULATORY CONTROLS

ONENT #2 IS THE SUBJECT OF A TSCA SECTION 4 TEST RULE. EXPORT OF THIS PRODUCT IS THEREFORE IBITED WITHOUT NOTIFICATION TO EPA. THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA NTORY OF CHEMICAL SUBSTANCES.

ION XV SPECIAL NOTES

ION XI - ENVIRONMENTAL PROTECTION HAS BEEN REVISED. THE INFORMATION IN THE "WASTE DISPOSAL" "ENVIRONMENT PROTECTION" HAS BEEN REMOVED AND INCLUDED IN THE ATTACHED ENVIRONMENTAL DATA . IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE EOS SHOULD ALWAYS BE COPIED AND SENT THE MSDS.

Henry Co.
Campbells Soup

OhioEPA
State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.
Columbus, Ohio 43266-0149
(614) 644-3020
FAX (614) 644-2329

George V. Voinovich
Governor

Donald R. Schregardus
Director

December 21, 1992

RECEIVED
DEC 23 1992
OHIO E.P.A.
N.W.D.O.

Patrick J. Mead
Inkjet, Inc.
7015 College Boulevard, Suite 640
Overland Park, KS 66211

Dear Mr. Mead:

This letter is in response to our phone conversation and your facsimile of December 17, 1992 in which you inquired if empty containers used by Campbell Soup in Napoleon, OH, could be disposed of as solid waste. These containers formerly held aqueous-based ink.

There are two points that must be determined: 1) Is the aqueous-based ink a RCRA hazardous waste, and 2) Are the containers empty? Under the Resource Conservation and Recovery Act, a waste is hazardous if it is listed in the regulations or, if not listed, it exhibits one or more of the four hazardous characteristics. These are ignitability, corrosivity, reactivity, or toxicity. I have enclosed rules 3745-51-20 through 3745-51-24 from the Ohio Administrative Code (OAC) which are used to determine the characteristics of hazardous wastes. It is the responsibility of the generator of a waste to ascertain if it is hazardous, either through knowledge of the waste stream or by use of analytical tests.

If it is determined that the ink in the containers was not hazardous, the containers may be disposed of or recycled as solid waste. If the ink is found to be hazardous, then the containers may be disposed of as solid waste only if they are "RCRA empty." If they contain hazardous ink and do not meet the definition of "RCRA empty," then they must be managed and disposed of as hazardous waste. Enclosed is a copy of Ohio Administrative Code 3745-51-07 which establishes the limits for determining if a container is empty and therefore not subject to the RCRA requirements.

If you have any further questions, feel free to call me at (614) 644-2956.

Sincerely,

Judith Brazis

Judith Brazis
RCRA Technical Assistance Section
Division of Hazardous Waste Management

cc: Chuck Hull, DHWM, NWDO
Brian Babb, Legal
Central File

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(b) Rules 3745-65-71 and 3745-65-72 of the Administrative Code (dealing with the use of the manifest and manifest discrepancies).

[Comment: Such a generator is also subject to the U.S. EPA notification requirements under Chapter 3734. of the Revised Code.]

HISTORY: Eff. 12-30-89 (1989-90 OMR 566)
1988-89 OMR 445; 1986-87 OMR 1288; 1985-86 OMR 666

Note: Effective 1-30-86, former 3745-51-06 (1985-86 OMR 172) was repealed.

CROSS REFERENCES

RC 3734.12, Guidelines for hazardous and solid waste rules and standards; disposal of certain wastes may be prohibited; rules may be more stringent than federal law

3745-51-07 Residues of hazardous waste in empty containers

(A)(1) Any hazardous waste remaining in either an empty container or an inner liner removed from an empty container, as defined in paragraph (B) of this rule, is not subject to regulation under rules 3745-50-40 to 3745-50-62 or Chapters 3745-51 to 3745-57, 3745-59, or 3745-65 to 3745-69 of the Administrative Code or Chapter 119. of the Revised Code or to the notification requirements of Chapter 3734. of the Revised Code.

(2) Any hazardous waste in either a container that is not empty or an inner liner removed from a container that is not empty, as defined in paragraph (B) of this rule, is subject to regulation under rules 3745-50-40 to 3745-50-62 and Chapters 3745-51 to 3745-57, 3745-59, and 3745-65 to 3745-69 of the Administrative Code and to the notification requirements of Chapter 3734. of the Revised Code.

(B)(1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste in rule 3745-51-31, 3745-51-32, or paragraph (E) of rule 3745-51-33 of the Administrative Code, is empty if:

(a) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating; and

(b) No more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner; or

(c)(i) No more than three per cent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to one hundred ten gallons in size; or

(ii) No more than 0.3 per cent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than one hundred ten gallons in size.

(2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

(3) A container or an inner liner removed from a container that has held an acute hazardous waste listed in rule 3745-51-31, 3745-51-32, or paragraph (E) of rule 3745-51-33 of the Administrative Code is empty if:

(a) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(b) The container or inner liner has been cleansed by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(c) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

HISTORY: Eff. 12-30-89 (1989-90 OMR 567)
1985-86 OMR 667, 172; 1984-85 OMR 1321; 12-2-81

Note: Effective 11-24-81, former 3745-51-07 (8-26-81) expired.

CROSS REFERENCES

RC 3734.12, Guidelines for hazardous and solid waste rules and standards; disposal of certain wastes may be prohibited; rules may be more stringent than federal law

3745-51-08 Next Page

3745-51-10 Criteria for identifying the characteristics of hazardous waste

The director shall identify and define a characteristic of hazardous waste in rules 3745-51-20 and 3745-51-24 of the Administrative Code only upon determining that:

(A) A waste that exhibits the characteristic may:

(1) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or

(2) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and

(B) The characteristic can be:

(1) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(2) Reasonably detected by generators of waste through their knowledge of their waste.

HISTORY: Eff. 8-29-85 (1985-86 OMR 173)
1984-85 OMR 1321

Note: Effective 12-2-81, former 3745-51-10 (8-26-81) was repealed.

CROSS REFERENCES

RC 3734.12, Guidelines for hazardous waste rules and standards; disposal of certain wastes may be prohibited; rules may be more stringent than federal law

3745-51-11 Criteria for listing hazardous waste

(A) The director shall list a waste as a hazardous waste only upon determining that the waste meets one of the following criteria:

(1) It exhibits any of the characteristics of hazardous waste identified in rules 3745-51-20 to 3745-51-24 of the Administrative Code.

(2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD50 toxicity (rat) of less

3745-51-22 Characteristic of corrosivity.

(A) A waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to two or greater than or equal to 12.5, as determined by a pH meter using either the test method specified in the "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see rule 3745-50-11 of the Administrative Code and also described in "Methods for Analysis of Water and Wastes" EPA 600/4-79-020, March 1979) or an equivalent test method authorized for use by the administrator under the procedures set forth in 40 CFR Sections 260.20 and 260.21.

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of fifty-five degrees C (one hundred thirty degrees F) as determined by the test method specified in "NACE Standard TM-01-69" as standardized in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see rule 3745-50-11 of the Administrative Code) or an equivalent test method authorized for use by the administrator under the procedures set forth in 40 CFR Sections 260.20 and 260.21.

(B) A waste that exhibits the characteristic of corrosivity~~, but is not listed as a hazardous waste in this chapter,~~ shall have the Ohio EPA hazardous waste number of D002.

Effective: FEB 11 1992

CERTIFICATION

JAN 30 1992
Date

Promulgated under: RC Chapter 119
Rule amplifies: RC Section 3734.12, 6111.05
Prior effective dates: 4/15/81, 12/2/81, 5/29/85 (Emer.), 8/29/85

3745-51-21 Characteristic of ignitability.

(A) A waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than an aqueous solution containing less than twenty-four per cent alcohol by volume, and has a flash point less than sixty degrees C (one hundred forty degrees F), as determined by a "Pensky-Martens Closed Cup Tester," using the test method specified in "ASTM Standard D-93-79 or D-93-80" (incorporated by reference, see rule 3745-50-11 of the Administrative Code), or a "Setaflash Closed Cup Tester," using the test method specified in "ASTM Standard D-3278-78" (incorporated by reference, see rule 3745-50-11 of the Administrative Code), or as determined by an equivalent test method authorized for use by the administrator under the procedures set forth in 40 CFR Sections 260.20 and 260.21.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR Section 173.300 and as determined by the test methods described in that regulation or equivalent test methods authorized by use by the administrator under the procedures set forth in 40 CFR Sections 260.20 and 260.21.

(4) It is an oxidizer as defined in 49 CFR Section 173.151.

(B) A waste that exhibits the characteristic of ignitability~~, but is not listed as a hazardous waste in this chapter,~~ shall have the Ohio EPA hazardous waste number of D001.

Effective: FEB 1 1 1992

CERTIFICATION

JAN 30 1992
Date

Promulgated under: RC Chapter 119
Rule amplifies: RC Section 3734.12, 6111.05
Prior effective dates: 4/15/81, 12/2/81, 5/29/85 (Emer.), 8/29/85

TABLE 1

MAXIMUM CONCENTRATIONS OF CONTAMINANTS
FOR THE TOXICITY CHARACTERISTIC

OHIO EPA HAZ. WASTE NUMBER	CONTAMINANT	CAS [1] NUMBER	REGULATORY LEVEL (MG/L)
D004	ARSENIC	7440-38-2	5.0
D005	BARIUM	7440-39-3	100.0
D018	BENZENE	71-43-2	0.5
D006	CADMIUM	7440-43-9	1.0
D019	CARBON TETRACHLORIDE	56-23-5	0.5
D020	CHLORDANE	57-74-9	0.03
D021	CHLOROBENZENE	108-90-7	100.0
D022	CHLOROFORM	67-66-3	6.0
D007	CHROMIUM	7440-47-3	5.0
D023	O-CRESOL	95-48-7	200.0 [3]
D024	M-CRESOL	108-39-4	200.0 [3]
D025	P-CRESOL	106-44-5	200.0 [3]
D026	CRESOL	-------	200.0 [3]
D016	2,4-D	94-75-7	10.0
D027	1,4-DICHLOROBENZENE	106-46-7	7.5
D028	1,2-DICHLOROETHANE	107-06-2	0.5
D029	1,1-DICHLOROETHYLENE	75-35-4	0.7
D030	2,4-DINITROTOLUENE	121-14-2	0.13 [2]
D012	ENDRIN	72-20-8	0.02
D031	HEPTACHLOR (AND ITS EPOXIDE)	76-44-8	0.008
D032	HEXACHLOROBENZENE	118-74-1	0.13 [2]
D033	HEXACHLOROBUTADIENE	87-68-3	0.5
D034	HEXACHLOROETHANE	67-72-1	3.0
D008	LEAD	7439-92-1	5.0
D013	LINDANE	58-89-9	0.4
D009	MERCURY	7439-97-6	0.2
D014	METHOXYCHLOR	72-43-5	10.0
D035	METHYL ETHYL KETONE	78-93-3	200.0
D036	NITROBENZENE	98-95-3	2.0
D037	PENTRACHLOROPHENOL	87-86-5	100.0
D038	PYRIDINE	110-86-1	5.0 [2]
D010	SELENIUM	7782-49-2	1.0
D011	SILVER	7440-22-4	5.0
D039	TETRACHLOROETHYLENE	127-18-4	0.7
D015	TOXAPHENE	8001-35-2	0.5
D040	TRICHLOROETHYLENE	79-01-6	0.5
D041	2,4,5-TRICHLOROPHENOL	95-95-4	400.0
D042	2,4,6-TRICHLOROPHENOL	88-06-2	2.0
D017	2,4,5-TP (SILVEX)	93-72-1	1.0
D043	VINYL CHLORIDE	75-01-4	0.2

1 CHEMICAL ABSTRACTS SERVICE NUMBER.

2 QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.

3 IF O-, M-, AND P-CRESOL CONCENTRATIONS CANNOT BE DIFFERENTIATED, THE TOTAL CRESOL (D026) CONCENTRATION IS USED. THE REGULATORY LEVEL OF TOTAL CRESOL IS 200 MG/L.

TO BE ENACTED

3745-51-24 TOXICITY CHARACTERISTIC.

(A) A WASTE EXHIBITS THE CHARACTERISTIC OF TOXICITY IF, USING THE TEST METHODS DESCRIBED IN THE APPENDIX OF THIS RULE, OR AN EQUIVALENT TEST METHOD AUTHORIZED FOR USE BY THE ADMINISTRATOR UNDER THE PROCEDURES SET FORTH IN 40 CFR 260.20 AND 260.21, THE EXTRACT FROM A REPRESENTATIVE SAMPLE OF THE WASTE CONTAINS ANY OF THE CONTAMINANTS LISTED IN TABLE 1 OF THIS RULE AT A CONCENTRATION EQUAL TO OR GREATER THAN THE RESPECTIVE VALUE GIVEN IN THAT TABLE. WHERE THE WASTE CONTAINS LESS THAN 0.5 PER CENT FILTERABLE SOLIDS, THE WASTE ITSELF, AFTER FILTERING USING THE METHODOLOGY OUTLINED IN THE APPENDIX TO THIS RULE, IS CONSIDERED TO BE THE EXTRACT FOR THE PURPOSES OF THIS RULE.

(B) A WASTE THAT EXHIBITS THE CHARACTERISTIC OF TOXICITY SHALL HAVE THE OHIO EPA HAZARDOUS WASTE NUMBER SPECIFIED IN TABLE 1 OF THIS RULE WHICH CORRESPONDS TO THE TOXIC CONTAMINANT CAUSING IT TO BE HAZARDOUS.

3745-51-23 Characteristic of reactivity.

(A) A waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between two and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR Section 173.51, or a "Class A" explosive as defined in 49 CFR Section 173.53 or a "Class B" explosive as defined in 49 CFR Section 173.88.

(B) A waste that exhibits the characteristic of reactivity~~, but is not listed as a hazardous waste in this chapter,~~ shall have the Ohio EPA hazardous waste number of D003.

Effective: FEB 11 1992

CERTIFICATION Donald E. Schregardus

JAN 30 1992

Date

Promulgated under: RC Chapter 119
Rule amplifies: RC Section 3734.12, 6111.05
Prior effective dates: 4/15/81

HENRY CO-
CAMPBELL'S SOUP
RCRA

Pam A
Henry
Campbells Soup

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

RECEIVED
AUG 17 1993
OHIO E.P.A.
N.W.D.O.

REPLY TO THE ATTENTION OF:

AUG 03 1993

HRE-8J

Ms. Pam Allen
Division of Hazardous Waste Management
Central Office
Ohio Environmental Protection Agency
P.O. Box 1049
1800 WaterMark Drive
Columbus, Ohio 43266-1049

Dear Ms. Allen:

Enclosed please find a copy of a June 20, 1993, Boiler and Industrial Furnace (BIF) Inspection Report for Campbell Soup Company (Campbell Soup), Napoleon, Ohio, EPA I.D. No. OHD 005 419 171. During the BIF inspection conducted by the United States Environmental Protection Agency on May 19, 1993, it was discovered that Campbell Soup was placing spent solvents on an outside coal pile prior to burning the spent solvents and coal in a boiler.

This inspection report is being transmitted to the Ohio Environmental Protection Agency (OEPA) in order for OEPA to evaluate the compliance of Campbell Soup with applicable provisions of the Ohio Administrative Code rules for treatment, storage, and disposal facilities along with applicable Land Disposal Restrictions. Thank you for your attention to this matter.

Sincerely yours,

Kevin M. Pierard, Chief
MN/OH Technical Enforcement Section

Enclosure

cc: David Sholtis

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OHIO EPA
AUG 06 93
DIVISION of
HAZARDOUS WASTE MGT.

RECEIVED

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

Date: June 20, 1993

Subject: Final BIF Inspection Report
Campbell Soup Company, Napoleon, Ohio

From: Jae B. Lee
Hazardous Waste combustion Inspector, Region V

To: File

Inspection Date : May 19, 1993

Inspection Participants:	Jae B. Lee	(U.S. EPA)
	Herbert H. Salsbury	(Campbell soup Co.)

Facility : Campbell Soup Company
1/4 Mile off Route 110
Napoleon, Ohio 43545

OHD 005 419 171
(419) 592-1010

Responsible Official of Campbell Soup Co.:

Herbert H. Salsbury: Manager, Services & Utilities

Applicable Regulations:

40 C.F.R. Parts 266.108 : Small Quantity Burner Exemptions

Purpose of Inspection:

This inspection is a routine Compliance Evaluation Inspection of Campbell Soup Company, Napoleon, Ohio, pursuant to Section 3007 of RCRA, for the evaluation of Campbell's compliance with the requirements of RCRA and the newly promulgated regulations concerning the burning of hazardous waste and other related activities of Boilers and Industrial Furnaces (BIFs) published in 40 C.F.R. Part 266 Subpart H.

(I) Facility Description

Campbell Soup Company (Campbell) generates spent solvent liquid waste (mostly "O" thinner) as a result of its maintenance activities. This waste material was burned in the two coal-fired boilers with one common stack at Campbell facility to produce steam. Waste solvent collected from the various parts maintenance locations were brought to the coal pile in the 50-gallons can. Campbell indicated that there are 22 parts maintenance locations in the facility and each maintenance location generates approximately up to 50 gallons of waste solvent. The collected waste solvent was manually spread (walking through at the top of coal pile) at the top of coal pile located in the yard. It was not known how well the waste solvent was mixed with coal pile (i.e., the degree of uniform mixing with total mass of coal). Based on the operating log, up to 140 gallons per month of waste solvent was generated and spread over the coal pile. However, it was not known whether all of these 140 gallons of waste were generated at one time or at different time within the month. Campbell has indicated that there were usually 3,000 Tons of coal in the yard. Approximately 100 Tons of coals were used to be burned in the boilers daily and 100 Tons of coals were brought into the coal pile daily. According to the Campbell's historical operating log, approximately 20 to 140 gallons per month of liquid hazardous waste were burned from September 1991 to January 1993. Due to the internal waste recycling program, no waste has been generated since January of 1993 (the exact date was not known). Since waste solvent was carried to the coal pile as it generated, no waste solvent was stored at the facility.

There was no monitored or recorded firing rate of hazardous waste available at the facility. Therefore, the determination whether the maximum hazardous waste firing rate have exceeded at any time 1 percent of the total fuel requirements could not be made. Based on the worst possible scenario, it can be assumed that the maximum hazardous waste (140 gallons) was generated at the same time and spread over only portion of daily usage coal pile (around 100 Tons of coal). Based on the 8.0 Ib/gallon waste density, the 1 percent firing rate of hazardous waste would be 253 gallons (based on the above worst possible scenario). If the waste solvent was spread over very small amount of coal, then it is possible that the firing rate of hazardous waste might have exceeded the 1 percent criteria. Since the heating values of coal (around 13,000 Btu/Ib) and waste solvent (17,000 Btu/Ib) were similar, it is expected that the maximum hazardous waste firing rate would not exceed 1 percent of the total fuel requirements on a total heat input. The Material Safety Data Sheet indicates that "O" thinner has heating value as 17,300 Btu/Ib.

Campbell has indicated that used oil generated at the facility was burned in the boiler #3 (oil-fired boiler). In October 1991, Campbell has analyzed used oil to determine whether used oil can be managed as non-hazardous waste. Due to the lower flash point, used oil was considered as hazardous waste and spread over coal pile. Campbell indicated that used oil was analyzed again and showed higher flash point than 140 F. Since then, according to the Campbell, used oil has been burned in the boiler #3. The second analysis of used oil was not reviewed.

On August 19, 1991, Campbell submitted the Small Quantity Burner (SQB) Notification to U.S. EPA. The physical stack height was estimated as 30 meters and the maximum quantity of hazardous waste to be burned was determined as 140 gallons per month (from §266.108 (a)(1)).

(II) Inspection Findings and Observed Violations

On May 19, 1993, U.S. EPA performed a BIF Compliance Inspection at Campbell to determine Campbell's compliance with the limits and conditions specified in the SQB Exemption and other requirements of the BIF regulations.

During the inspection, the following potential problems were observed:

(a) Inadequate SQB Notification

40 CFR 266.108 (a)(1) : The quantity of hazardous waste burned in a device for a calendar month does not exceed the limits provided in the following table based on the terrain-adjusted effective stack height as defined in section 266.106(b)(3) :

In the Notification submitted on August 19, 1991, Campbell has failed to determine the terrain-adjusted effective stack height. Campbell has used the physical stack height of 30 meters, and the maximum hazardous waste to be burned in the boilers was determined as 140 gallons per month based on the physical stack height. (See Attachment 1)

During the inspection, Campbell has provided that the exit gas flow rate is 44,000 ACFM (21 CMS) and exit gas temperature is 465 F (513 K). (The plume rise determined from Appendix VI is 27 meters.) Since this facility is located in the generally flat area (based on the visual observation), it is not expected to have higher terrain rise within 5 kilometers of the facility in order to result in the significant reduction of terrain-adjusted

effective stack height. (There was no information available at the facility about the terrain rise within 5 kilometers of the facility.) If necessary, information request can be made to Campbell for topography map within 5 kilometers of the facility. Such information can be used to determine the allowable maximum hazardous waste burning rate and any potential exceedences.

Attachment 1 : SQB Notification
Attachment 2 : Inspection Check-List

Attachment 1 : SQB Notification



CAMPBELL SOUP COMPANY
NAPOLEON, OHIO
419-592-1010

TO ATTENTION OF Joe Lee

COMPANY NAME AND LOCATION

PHONE NO.

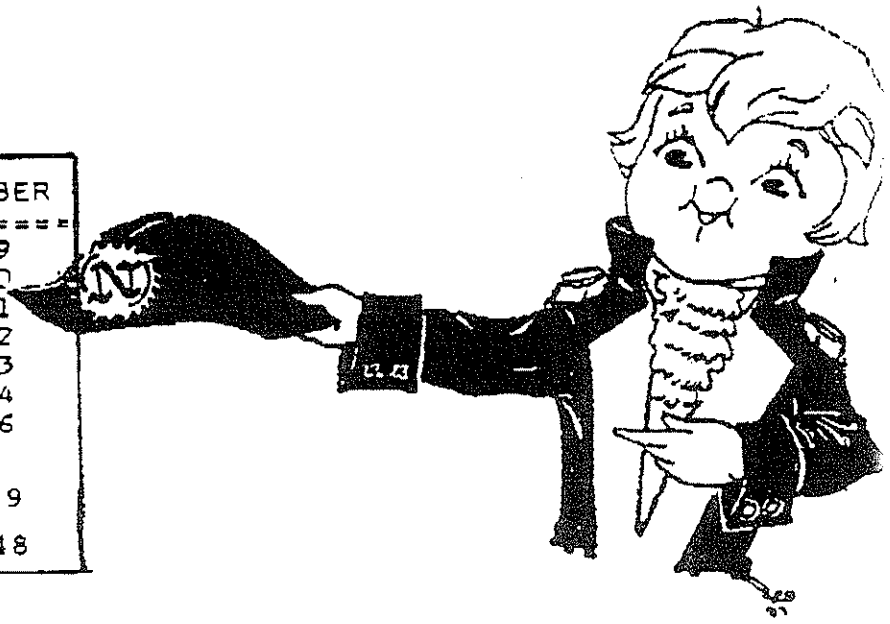
NUMBER OF PAGES BEING SENT INCLUDING COVER PAGE 2

FROM Herb Salsbury EXT.

DEPARTMENT NAME

ANY PROBLEMS PLEASE CALL 419-592-1010 AND ASK FOR PERSON OR DEPARTMENT SENDING MESSAGE

AREA	FAX NUMBER
ACCOUNTS PAYABLE	599-6669
ENGINEERING	599-6670
GENERAL ACCOUNTING	599-6671
GENERAL USE	599-6672
LOGISTICS	599-6673
BEVERAGE PLANT	599-6674
PURCHASING	599-6676
QUALITY ASSURANCE	599-6680
INVENTORY ACCT	599-6749
STOREROOM MAINT.	599-6748



Napoleon Plant

Campbell SOUP Company

NAPOLEON, OHIO 43545

August 19, 1991

Mr. Gary Victorine (5HR-13)
U.S. Environmental Protection Agency, Region 5
230 S. Dearborn Street
Chicago, Illinois 60604

Dear Mr. Victorine:

RE: Regulation of the burning of hazardous waste in boilers and industrial furnaces.

Effective August 21, 1991, the Napoleon Campbell Soup Company facility will be exempt under the small quantity on-site burner exemption. We have made many changes in our operation this past year such as eliminating enamels, recycling solvents, and reducing waste which will allow us to meet this exemption. Based on stack height of thirty meters, we will limit our burning to the allowable 140 gallons per calendar month. The waste burned:

a. Will not exceed 1% of the total fuel requirements of the boiler.
b. Will have a minimum BTU value of 5,000 BTU/lb. as generated.
c. Will not contain hazardous waste no.'s F020, F021, F022, F023, F026, or F027.

Any waste produced over the 140 gallon per month will be removed from the property under R.C.R.A. regulations.

Sincerely,

CAMPBELL SOUP COMPANY

Harry M. Brown
Plant Manager

8-20

Attachment 2 : Inspection Check-List

Campbell Soup Co.)
Napoleon, Ohio

IX. SMALL QUANTITY BURNERS

SMALL QUANTITY BURNERS - §266.108

	Yes	No	Comments
1. Did the facility inform EPA with a one-time written notice indicating the following as required by 40 CFR §266.108(d)	✓		
a. The combustion unit is operating as a small quantity burner of hazardous waste	✓		
b. The owner and operator are in compliance with the requirements of this section; and	✓		
c. The maximum quantity of hazardous waste that a facility may burn per month as provided in §266.108(a)(1)?	✓		No Terrai-adjusted - effective stack height was determined used the physical stack height is same as the stack height

2. How many stacks does the facility have? One Common stack for two coal-fired boilers
(NOTE: If facility burns hazardous waste in more than one on-site boiler or furnace exempt under this part, the quarterly limits are implemented according to the following equation found in §266.108(c):

$$\sum_{i=1}^{n} \frac{\text{Actual Quantity Burned (i)}}{\text{Allowable Quantity Burned (i)}} < 1.0)$$

→ There is one Common stack for three Boilers

3. What is the total height of the stacks? 30 meters (Physical height)

IX. SMALL QUANTITY BURNERS(§266.108)

BIF INSPECTION CHECKLIST

4. What is the terrain adjusted effective stack height (TESH) as defined in §266.106(b)(3)?

30 meters

$$TESH = Ha + H_1 - T_r$$

HA = actual physical stack height

H_1 = Plume rise as determined from Apx VI of Part 266 as a function of stack flow rate and stack exhaust temperature

T_r = Terrain rise within 5 kilometers of the stack

plume Rise (H_1) was determined as 27 meters.

(Tr is not expected to be greater than 27 m due to the flat area)

5. From the table in §266.108(a), how much hazardous waste is the facility allowed to burn per month?

140 gallons/month

6. How much hazardous waste does the facility burn per month (See Question #11)?
NOTE: The amount of hazardous waste that can be burned by a small quantity burner is a function of the stack height of the burner (See Question 5)

~ 140 galls/month.

7. a. What is the percentage of hazardous waste in SQB's fuel?

< 1%

b. Does it exceed 1%?

NO.

NOTE: In order to qualify for this exemption, the maximum hazardous waste firing rate an not exceed, at any time, 1 percent of the total fuel requirements for the device (hazardous waste plus other fuel) on a volume basis (266.108(a)(2)).

8. What is the minimum heating value of the hazardous waste as generated (266.108(a)(3))?
NOTE: To qualify for this exemption, the hazardous waste must have a minimum heating value of 5000 Btu/lb, as generated.

> 5,000 Btu/lb

(See attachment 3)

	Yes	No	Comments
9. Did the facility perform waste analysis?	✓		for heating value and other parameters.
10. Does the hazardous waste contain or is it derived from EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027? NOTE: The hazardous wastes listed above are dioxin or dioxin-derived hazardous waste and may not be burned in a BIF unit (§266.108(a)(4)).		✓	See attachment 3

11. Conduct the following verification steps:

Parameter	Allowable	Observed	Comments
a. Quantity of hazardous waste burned in a calendar month - based on TESH* and limits in §266.108(a)(1)	140 gallons/Mon	≤140 gallons/Month.	
b. Minimum heating value	5,000 Btu/lb	>5,000	
c. Content in hazardous waste of F020, F021, F022, F023, F026 or F027	0	0	
d. Maximum hazardous waste firing rate as percentage of total fuel requirements	1%	<1%	

* TESH - Terrain Adjusted Effective Stack Height (See Question #4 to this section)

IX. SMALL QUANTITY BURNERS(§266.108)

BIF INSPECTION CHECKLIST

12. Storage: Check the facility records for the following information:

	Yes	No*	Comments
a. Is hazardous waste stored on-site?		✓	short period of time < 1 month.
b. If yes, is it hazardous waste other than the 1% fuel mixture stored in units other than tanks that feed fuel directly to the burner?	[1]		

If the waste is accumulated in accordance with the generator accumulation provisions of §262.34, refer to OSWER Directive No. 9938.2A, RCRA Inspection Manual, Containers Checklist

If the hazardous waste is stored in regulated storage units, refer to the appropriate Part 264/265 checklists in OSWER Directive No. 9938.2A, RCRA Inspection Manual

* **Potential Violation**

[1] If yes, units must comply with 40 CFR Part 264 or Part 265 requirements, whichever are appropriate.

13. Recordkeeping Requirements (§266.108(e))

	Yes	No	Comments
Does the facility have records documenting:			
a. Hazardous waste quantity burned per month? (Does the facility comply with limits set in Questions 5 and 6?)	✓		
b. Firing rate?	✓		
c. Heating value of hazardous waste?	✓		

STACK DATA

16. Your stack identification #1 & #2 Boilers

17. Are other sources vented to this stack? ☒ Yes ☐ No
If yes, identify sources #2 Boiler

18. Type: Round, top inside diameter dimension 6.5
Rectangular, top inside dimensions (L)_____ x (W)_____

19. Height: Above roof 26.2 ft., above ground_____ ft.

20. Exit gas: Temp. 465 °F, Volume 44,000 ACFM, Velocity 2,460 ft./min

21. Continuous monitoring equipment ☒ Yes ☐ No
If yes, indicate type Opacity, Manufacturer Lear Siegler
Make or Model RM41, Pollutant(s) monitored Particul

22. Emission data: Emissions from this source have been determined and such data is included with this appendix: ☐ Yes ☒ No
If yes, check method: ☐ Stack Test ☐ Emission factor

New stack test will be completed within 60 days and results forwarded to E.P.A.

Completed by H.H. Salsbury, Date Dec. 19

$$44{,}000 \frac{ft^3}{Min} \times \left(\frac{1m}{3.281ft}\right)^3 \times \frac{1 Min}{60 sec} = 20.8 \frac{m^3}{sec}$$

$$465°F = \frac{(465°F - 32)}{1.8} + 273.15 = 513 K$$

DATE	GALLONS DUMPED	RUNNING TOTAL	AREA FROM	PERSON DUMPING	APPROVED BY
1-9-91	30	30	Main Plant Service	Eddy Bevins	RHM
		Coal burned = 8,045,000 lbs		8/91	
10-24-91	60	60	Plant Service	Eddy Bevins	Hand
28	80	140	* [illegible] oil tank	RHM	Hand
		Coal Burned = 9,243,600		10/91	
11-30	140	140	* [illegible] tank	Alan Betz	Hand
		Coal Burned = 6,801,000 lbs		11/91 * Info in Herbs file 2TW/LB = 5,808	
12-13	20	20	Filling dept.	Bob Allen	Hand
		Coal Burned = 5,955,000 lbs		12/91	
1-31-92	60	60	Container	Caroline	RHM
		Coal burned = 8,265,000 lbs		1/92	
2-4-92	20	20	"	"	RHM
2-12-92	5	25	Plant Service	Eddie Bevins	RHM
2-17-92	15	40	Container	Caroline	RHM
		Coal burned	6,242,700 lbs	2/92	
7-2-92	25	25	Plant Service	Eddy Bevins	RHM
		Coal burned	5,259,200 lbs	7/92	
8- -92	40	40	V8 D&I	Dave Alvord	RHM
		Coal burned	7,321,350 lbs	8/92	
9-2-92	40	40	V8 D&I	Dave A.	RHM
9-14-92	12	52	Container	Marchant	RHM
9-22-92	2	5[illegible]	[illegible]	[illegible]	[illegible]
9-29	40	94	V8 D&I	Dave A.	RHM
		Coal burned = 7,731,600 lbs	9/92		
10-28	80	80	V8 D&I	[illegible]	RHM
		Coal burned = 8,406,800 lbs	10/92		



SOLVENTS AS FUEL

DATE	GALLONS DUMPED	RUNNING TOTAL	FROM AREA	PERSONS DUMPING	APPROVED BY
12-7-92	30	30	Container	Caroline	RHM
12-26-92	70	100	E D+1	Dave A	RHM
1-5-93	55	55	E "	"	RHM

Coal burned 12/92 = 6,761,400

Coal burned 7,228,000 lbs 1/93

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (708) 953-9300

Member of the SGS Group (Societe Generale de Surveillance)

October 22, 1991

PLEASE ADDRESS ALL CORRESPONDENCE TO:
16130 VAN DRUNEN RD., P.O. BOX 127
SOUTH HOLLAND, IL 60473
TELEPHONE: (708) 331-2900
FAX: (708) 333-3060

CAMPBELL SOUP COMPANY
Box 311
Napoleon, OH 43545
ATTN: H. Salsbury

Sample identification by
Campbell Soup Company

Kind of sample reported to us: Oil

Sample taken at: Campbell Soup Company

Sample taken by: Campbell Soup Company

Date sampled: September 30, 1991

Date received: October 10, 1991

Sample ID: Used Oil - #1
Tank Bottoms
Date: 9/30/91

sent on coal piles as hazardous waste

Invoice No.: 4-63863
P.O. No. 004-030308

Analysis Report No. 71-21254

	As Received		Limits
* FLASH POINT, PENSKY-MARTENS	136° F		140 or ABOVE
% TOTAL HALOGENS	0.05	5 ppm	1000 MAX
HEATING VALUE Btu/lb	5,898		5,000 or ABOVE.

* **Note:** Very poor Flash Point

Cannot burn as Non-Regulated Oil too much water + solvent, Flash Point below 140°

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Aaron Hall
Manager, South Holland Laboratory

COAL

1st - 1/4 1993

As Is			Dry		
ASH	S	BTU	ASH	S	BTU
6.55	3.23	12,555	7.10	3.50	13,608
7.92	2.97	11,845	8.75	3.28	13,087
6.77	2.67	12,666	7.24	2.86	13,560
5.74	2.59	12,503	6.28	2.78	13,438
6.18	3.31	12,122	6.82	3.65	13,371
5.82	2.81	12,815	6.24	3.01	13,735
5.73	2.97	12,767	6.18	3.20	13,762
7.14	4.57	12,494	7.70	4.93	13,475
6.62	2.75	12,598	7.15	2.97	13,611
6.51	3.10	12,485	6.98	3.35	13,516

Coal

4 th 1/4 1992

As Is			Dry		
Ash	S	BTU	Ash	S	BTU
5.84	2.82	12,864	6.26	3.02	13,782
6.86	3.60	12,577	7.41	3.89	13,579
5.97	2.73	12,885	6.39	2.92	13,798
8.63	3.93	12,102	9.40	4.28	13,183
6.20	2.72	12,534	6.69	2.92	13,525
5.56	3.08	12,785	5.90	3.30	13,670
5.40	2.19	12,608	6.42	2.38	13,721
7.53	3.08	12,459	8.12	3.32	13,443
4.22	3.08	12,884	4.57	3.34	13,957
6.29	3.03	12,628	6.90	3.26	13,629

COAL

3rd 1/4 1992

As Is			Dry		
Ash	S	BTU	Ash	S	BTU
6.17	3.04	12,907	6.53	3.22	13,678
5.92	2.85	12,849	6.29	3.03	13,757
8.17	4.61	12,334	8.73	4.92	13,180
6.16	3.84	12,586	6.60	4.12	13,493
5.73	2.80	12,868	6.10	2.98	13,700
5.97	1.80	12,779	6.37	1.92	13,641
4.82	3.00	12,931	5.17	3.22	13,877
6.14	2.95	12,786	6.55	3.14	13,625
7.58	2.92	12,641	8.05	3.10	13,422
6.30	3.09	12,753	6.49	3.29	13,587

Coal

2nd 1/4 1992

As Rec'd

Ash	S	BTU
4.20	3.35	12,795
6.37	2.48	12,[illegible]
7.[illegible]	3.67	12,5[illegible]
5.71	2.20	12,[illegible]
[illegible]	3.29	12,760
[illegible]	2.68	12,[illegible]
[illegible]	2.95	12,717

Dry

Ash	S	BTU
4.53	3.61	13,80[illegible]
7.06	2.67	13,49[illegible]
7.96	3.92	13,412
6.08	2.34	13,809
6.86	3.51	13,562
6.27	2.85	13,682
[illegible]	3.16	13,628

Coal

1st 1/4 1992

As Is			Dry		
Ash	S	BTU	Ash	S	BTU
6.04	3.88	12,493	6.56	4.21	13,568
6.08	2.79	12,624	6.56	3.01	13,620
5.82	2.98	12,661	6.27	3.22	13,674
8.31	2.47	12,392	8.94	2.66	13,332
3.51	2.93	12,964	3.82	3.19	14,122
7.34	3.39	12,607	7.88	3.64	13,541
6.18	3.08	12,624	6.67	3.32	13,643

MATERIAL SAFETY DATA SHEET

97367 (4-85)

MSDS NUMBER ▶ 7,550-7 PAGE 1

24 HOUR EMERGENCY ASSISTANCE	GENERAL MSDS ASSISTANCE
SHELL: 713-473-9461 CHEMTREC: 800-424-9300	SHELL: 713-241-4819

ACUTE HEALTH *	FIRE	REACTIVITY	HAZARD RATING ▶
2	2	0	LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4

*For acute and chronic health effects refer to the discussion in Section III

BE SAFE
READ OUR PRODUCT SAFETY INFORMATION ... AND PASS IT ON
(PRODUCT LIABILITY LAW REQUIRES IT)

SECTION I NAME

PRODUCT ▶	MINERAL SPIRITS 135 "D" THINNER
CHEMICAL NAME ▶	NOT APPLICABLE
CHEMICAL FAMILY ▶	HYDROCARBON SOLVENT
SHELL CODE ▶	83048

NO F020 F021 F022 F023 F026 F027

SECTION II-A PRODUCT/INGREDIENT

NO.	COMPOSITION	CAS NUMBER	PERCENT
P	MINERAL SPIRITS 135	MIXTURE*	100
1	SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC	64742-88-7	>85
2	SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	<15
--	----------TYPICAL DISTRIBUTION----------	----------	----------
.	PARAFFINS	NOT APPL.	45.9
.	NAPHTHENES	NOT APPL.	40.3
.	TOTAL AROMATICS	NOT APPL.	13.8
.	(TRIMETHYLBENZENE ..... 5-7%)	25551-13-7	--
.	(ETHYLTOLUENE ..... 0.6-0.9)	25550-14-5	--
.	OLEFINS	NOT APPL.	<0.1

*A COMPLEX COMBINATION OF PREDOMINATELY C8-C12 HYDROCARBONS; EXACT COMPOSITION WILL VARY.

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	NOT AVAILABLE		
1*	>25 ML/KG (RAT)	>4 ML/KG (RABBIT)	>700 PPM/4H (RAT)
2*	4.7 G/KG (RAT)	>4 ML/KG (RAT)	>3670 PPM/8H (RAT)

*BASED UPON TESTING OF EITHER PRODUCT OR ESSENTIALLY SIMILAR PRODUCTS.

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT
LIQUID IS MINIMALLY IRRITATING TO THE EYES. HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION.

SKIN CONTACT
LIQUID IS SLIGHTLY IRRITATING TO THE SKIN. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

[redacted] (RUN 07/18 91)

SAFETY-KLEEN CORP.
PREQUALIFICATION EVALUATION
MATERIAL ANALYSIS

COMPLETE: 07/18/91
CONTROL#: 0102253-9
SAMPLE# : 127172

ACCEPT
NO ATTACHMENT

[redacted] RECOVERY
[redacted]BELL SOUP CO

** FLUID RECOVERY **

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	DARK BROWN
WATER CONTENT	:	0.4 WT%
NON-VOLATILE RESIDUE	:	8.2 WT% DESCRIPTION: OIL
FLAMMABILITY	:	FLASHED AT 100 F BY SETAFLASH
FLAMMABILITY	:	FLASHED AT 140 F BY SETAFLASH
PH SCREEN:		7.0
PH	:	EXTRACT BY METER 6.4
RADIOACTIVITY	:	NONE DETECTED

COMMENTS: SMALL AMOUNT OF LIGHT BROWN SOLIDS ON BOTTOM

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT:		17300 BTU/LB			
TOTAL FLUORINE	F : <	0.1 WT%	ASH UPON COMBUSTION: <	0.1 WT%
TOTAL BROMINE	BR: <	0.1 WT%	TOTAL CHLORINE CL: <	0.1 WT%
			TOTAL SULFUR S : <	0.1 WT%

"O" Thinner
BTU/Lb

SECTION VII PHYSICAL DATA

BOILING POINT: 330-390 (DEG F)

SPECIFIC GRAVITY: 0.79 (H2O=1)

VAPOR PRESSURE: 16*@100 DEG. (MM HG)

MELTING POINT: NOT AVAILABLE (DEG F)

SOLUBILITY: (IN WATER) NEGLIGIBLE

VAPOR DENSITY: 4.8* (AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): <0.1*

*ESTIMATED

APPEARANCE AND ODOR:
LIGHT COLORED LIQUID. HYDROCARBON ODOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:
114 DEG. F (TCC)

FLAMMABLE LIMITS /% VOLUME IN AIR
LOWER: 1 UPPER: 6

EXTINGUISHING MEDIA
USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOA AND CAN BE REIGNITED ON SUFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS
CAUTION. COMBUSTIBLE. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FAC SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS
CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSUR BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

SECTION IX REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING
AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT.

ITIONAL PROTECTIVE MEASURES
EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. AIR-DRY CONTAMINATED THING IN A WELL VENTILATED AREA, THEN LAUNDER BEFORE REUSING.

TION XI ENVIRONMENTAL PROTECTION

LL OR LEAK PROCEDURES
TION. COMBUSTIBLE. *** LARGE SPILLS *** ELIMINATE POTENTIAL SOURCES OF IGNITION. WEAR ROPRIATE RESPIRATOR AND OTHER PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP IDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING TAINERS AND SEAL TIGHTLY FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; POSE OF FLUSH SOLUTION AS ABOVE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND CE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.

TION XII SPECIAL PRECAUTIONS

P LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY ITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY UMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. P CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.

TAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, NO, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS.

TIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT, BOND AND UND TRANSFER CONTAINERS AND EQUIPMENT.

TION XIII TRANSPORTATION REQUIREMENTS

RTMENT OF TRANSPORTATION CLASSIFICATION:
USTIBLE LIQUID

T. PROPER SHIPPING NAME:
OLEUM NAPHTHA

R REQUIREMENTS:
255., GUIDE SHEET 27.

TION XIV OTHER REGULATORY CONTROLS

ONENT #2 IS THE SUBJECT OF A TSCA SECTION 4 TEST RULE. EXPORT OF THIS PRODUCT IS THEREFORE IBITED WITHOUT NOTIFICATION TO EPA. THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA NTORY OF CHEMICAL SUBSTANCES.

ION XV SPECIAL NOTES

ION XI - ENVIRONMENTAL PROTECTION HAS BEEN REVISED. THE INFORMATION IN THE "WASTE DISPOSAL" "ENVIRONMENT PROTECTION" HAS BEEN REMOVED AND INCLUDED IN THE ATTACHED ENVIRONMENTAL DATA . IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE EOS SHOULD ALWAYS BE COPIED AND SENT THE MSDS.

Campbell or Henry Co. general if not one for Camp

Campbell Soup Company

NAPOLEON, OHIO 43545

October 30, 1991

Mr. Michael A. Porter
Division of Hazardous Waste Management
Northwest District Office
347 North Dunbridge Road
P.O. Box 466
Bowling Green, Ohio 43402

Dear Mr. Porter:

This letter is in response to your violation follow-up letter to me dated October 25, 1991.

Violation:

ORC3734.02 Waste oil mixed with rain water was standing along the outside of the waste oil above ground storage tank and dike.

Corrective action:

The above ground waste oil storage tank and pumping equipment was taken out of service on August 12, 1991. The tank and equipment was abandoned. Used oil is now transferred and pumped into our #3 boiler using a different system located inside an all-weather building attached to the Boilerhouse which eliminates the rain water problem.

Before the old upground storage tank area was abandoned, the C.H. Heist Corporation spent three days (August 12, 13, and 14) cleaning the area. They first vacuumed up all the standing water and oil. Then using their high pressure cleaning system they cleaned the inside and outside of the tank, and the concrete dike and roof. They then cleaned the concrete pads where the oily water was standing and the stones which made up the secondary dike. The oil collected by the Heist equipment was put on the coal pile and burned along with the coal as a fuel in #1 & #2 coal fired boilers.

If there are any questions concerning the above information, please call me at (419) 492-1010, extension 6343.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, ~~Manager~~
Services & Utilities

RECEIVED
OCT 31 1991
OHIO E.P.A.
N.W.D.O.

cc: Mr. L. M. Brown

OhioEPA
State of Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
P.O. Box 466
Bowling Green, Ohio 43402-0466
(419) 352-8461 FAX (419) 352-8468

George V. Voinovich
Governor

Re: Campbell Soup Company
OHD 055 419 171
Hazardous Waste
Henry County

October 25, 1991

Mr. Herbert H. Salsbury
Campbell Soup Company
P.O. Box 3011
Napoleon, Ohio 43545

Dear Mr. Salsbury:

As a result of Maryann Seghy's tour of your facility on August 5, 1991, your facility was found to be in violation of the following:

1. **ORC 3734.02** Campbell Soup Company illegally disposed of waste oil by allowing it to spill on the ground and mix with rain water.

2. **OAC 3745-52-11** Campbell Soup Company failed to properly evaluate an unlabeled 55 gallon drum of waste to determine if it is hazardous according to criteria set forth in chapter 3745-51 of the Ohio Administrative Code.

On September 15, 1991 this office received documentation consisting of analytical data which identified the contents of the drum referred to in violation #2 above. With this documentation, violation #2 has been corrected.

However, Campbell Soup Company has not responded to the issues raised in violation #1 of Maryann Seghy's Notice of Violation letter dated September 5, 1991.

Please respond to violation #1 in writing within ten (10) days. Your response must contain all actions and timetables necessary to demonstrate compliance.

Please be advised that continued noncompliance with applicable hazardous waste rules may be cause for enforcement action by this Agency pursuant to Chapter 3734 of the Ohio Revised Code.

If you have any questions, please advise.

Sincerely,

Michael A. Porter
Division of Hazardous
Waste Management

/dlh

pc: A & C Representative
NWDO file

Printed on recycled paper

Henry Co.

Campbell Soup Company

NAPOLEON, OHIO 43545

September 11, 1991

RECEIVED
SEP 13 1991
OHIO E.P.A.
N.W.D.O.

Ms. MaryAnn C. Sighy
Northwest District E.P.A.
347 North Dunbridge Road
P.O. Box 466
Bowling Green, Ohio 43402-0466

Dear Ms. Sighy:

This letter is in response to the violation letter we received from you dated September 5, 1991.

1. ORC3734.02. In order to be in compliance with the new B.I.F. regulations the Napoleon Campbell Soup plant made the decision that it would not burn enamel waste as a fuel in it's boilers effective August 20, 1991. On August 12, 1991 the pumping equipment for the outside enamel waste storage tank was removed along with the large manhole on the bottom of the tank. The Heist Cleaning Company used their high pressure cleaning system to clean the inside and outside of the tank and building. They also cleaned the concrete walls, pads, and stones, which made up the dike area. Using their large vacuum system they then vacuumed up all the removed oil and enamel, and put it on the coal pile where it was burned along with coal as a fuel in #1 and #2 coal fired boilers. The tank system is now unusable. When we decide to completely remove the tank system from our property, it will be done in accordance with the used tank removal regulations. Also, the soil around the tank will be evaluated and disposed of accordingly.

2. OAC 3745-52-11. The liquid waste we burned as a fuel in the boiler house came from the container manufacturing area. The enamel/solvent waste was delivered in square totes and the press room waste oil in 55 gallon drums. Since we plan to become a hazardous waste generator we had all of our waste sampled and evaluated by the Safety Kleen Company on July 19, 1991. Analysis of the container manufacturing press room waste oil which was in the 55 gallon drum in question is attached.

- continue -

3. I believe there is some confusion on our plans to burn waste oil and the small quantity on-site burner exemption. We plan to burn on-specification, non-regulated used oil in our #3 boiler. There is no gallonage limit on the burning of this oil as a fuel, because it does not fall under the hazardous waste regulations.

However, we have requested the small quantity on-site burner exemption. A copy of the letter to the U.S. E.P.A. requesting the exemption is attached. This will allow us to burn up to 140 gallons per month of certain types of hazardous waste. This is in addition to the non-regulated used oil that we will burn. We realize that both materials will have to be tested and records kept to be in compliance.

4. As discussed during your visit, due to the new B.I.F. regulations, the Napoleon Campbell Soup operation is becoming a generator of hazardous waste. A copy of the "Notification of Hazardous Waste Activity" sent to the U.S. E.P.A. is attached. We have had all our hazardous waste streams tested. We have been working with the Safety Kleen Company to insure a correct labeling, storage, and shipping program. On October 4, 1991, Safety Kleen will present a 4 bour in-plant hazardous waste handling workshop for our employees. On October 21 and 22 Mr. John Gerding, Team Leader-Container Manufacturing and Mr. Mike Maringer, Area Manger-Environmental Control, will attend a Lion Technology Hazardous Waste Management Workshop in Detroit. They will be assigned co-coordinators for the Napoleon hazardous waste activities.

If there are any question concerning the information in this letter, please call me at (419) 592-1010, extension 6343.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, Manager
Services & Utilities

dr

enclosures (3)

cc: Mr. L. M. Brown

80918 - R2271 (RUN 07/23/91)

PREQUALIFICATION EVALUATION
CUSTOMER SURVEY

COMPLETE: 07/23/91
CONTROL#: 0102249-2
SAMPLE# : 127174

Press Room Waste

ACCEPT

FLUID RECOVERY

NO ATTACHMENT

** FLUID RECOVERY **

CUSTOMER INFORMATION:

CAMPBELL SOUP
E MAUMEE ST
NAPOLEON OH 43545

BILLING ADDRESS:

E MAUMEE ST
NAPOLEON OH 43545

ATTN: JOHN A GERDING

BRANCH: 419001 STEVE NELSON COUNTY: HENRY
NATURE OF BUSINESS: SOUP MFG
FEDERAL EPA ID: OH0005419171 STATE EPA: . ID:
MANIFEST ADDRESS IS BILLING MANIFEST TO SAFETY-KLEEN SIC #: 2032
MATERIAL: LUBRA PLATE OIL PROCESS: MACHINE OIL
VOLUME: 1100 GALS PER WEEK VOLUME ON HAND: 2200
STORAGE CAPACITY: 10000 IN DRUMS SHIPPING FREQUENCY: 12 WKS IN DRUMS
COLOR: BROWN LAYERS: ONE PHYSICAL STATE: LIQUID VISCOSITY: LOW

MATERIAL COMPOSITION(VOL%):

	CODE	MIN	MAX	TYPICAL
OIL, PETROLEUM	0	0.0		100.0

RESTRICTED SUBSTANCES: NONE
D.O.T. HAZARDOUS MATERIAL: CUSTOMER REQUEST ASSISTANCE
EPA HAZARDOUS WASTE: CUSTOMER REQUEST ASSISTANCE
P.O. NO:
TYPE OF SAMPLE: COMPOSITE NUMBER OF DRUMS SAMPLED: 3 BRANCH: 419001 DATE: 06/19/91
CONTACT: JOHN A GERDING TITLE: AREA MGR CONTAINER TAKEN BY: CUSTOMER
SURVEY COMMENTS: 2716-2 PHONE: 419-592-1010
CHECK FOR SKOS

CORPORATE REVIEWS:	DISPOSITION	REVIEWER	DATE
TECHNICAL:	ACCEPT	CAP	07/23/91
REGULATORY:	ACCEPT	AAO	07/23/91
OPERATING:	ACCEPT	JWH	07/23/91

POSSIBLE FACILITIES: 658 654 642
000162

PRICING CODE: F1

APPROVED FACILITIES:

(658) SAFETY-KLEEN CORP
STATE HWY 146
NEW CASTLE KY 40050
FED EPA#: KYD053348108
STATE EPA#:
TELEPHONE: 502/845-2453
STATE CODE:

(654) SAFETY-KLEEN CORP
633 EAST 138TH ST
DOLTON IL 60419
ILD980613913
0310690006
708/849-4850
000162

APPROVD DOT-EPA DESC. 0001063 DRUM OR BULK RQ HAZARDOUS WASTE, LIQUID, N.O.S. ORM-E, NA9189, (D001), (ERG, 171)

EPA WASTE CODES D001

COMMENTS: OK FOR FUEL FRS PART 82101. NOT FOR SKOS DUE TO VOC.

THIS SERVES AS NOTICE PER, 40CFR264.12(B), THAT THE FACILITY(IES) NOTED ABOVE HAS THE APPROPRIATE PERMITS AND IS WILLING TO RECEIVE THE MATERIAL DESCRIBED.

SAFETY-KLEEN CORP.
PREQUALIFICATION EVALUATION
MATERIAL ANALYSIS

COMPLETE: 07/23/91
CONTROL#: 0102249-2
SAMPLE# : 127174

FLUID RECOVERY
CAMPBELL SOUP

ACCEPT
NO ATTACHMENT

** FLUID RECOVERY **

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	: DARK BROWN
WATER CONTENT	: 0.5 WT%
NON-VOLATILE RESIDUE	: 91.8 WT% DESCRIPTION: OIL
FLAMMABILITY	: NO FLASH AT 102 F BY SETAFLASH
FLAMMABILITY	: NO FLASH AT 142 F BY SETAFLASH
PH SCREEN:	7.0
PH	: EXTRACT BY METER 7.6
RADIOACTIVITY	: NONE DETECTED

COMMENTS: NO FLASH ON SETA AT 202

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT: [redacted]

TOTAL FLUORINE	F : < 0.1 WT%	ASH UPON COMBUSTION:	0.1 WT%
TOTAL BROMINE	BR: < 0.1 WT%	TOTAL CHLORINE	CL: < 0.1 WT%
		TOTAL SULFUR	S : 0.3 WT%

GENERAL COMPOSITION:

	SPECIFIC GRAVITY	VISCOSITY (CENTIPOISE)	GENERAL COMPOSITION BY: APPEARANCE (VOL%)	TOTAL (WT %)
AQUEOUS PHASE (FREE WATER)			0.0	0.0
ORGANIC PHASE (FEEDSTOCK)			100.0	100.0
BOTTOM SLUDGE (SEMISOLIDS)			0.0	0.0
BOTTOM SOLID (SETTLED SOLIDS)			0.0	0.0
TOTAL	.882	156 CPS	100.0	100.0

VOLATILE ORGANIC COMPOSITION OF ORGANIC PHASE BY GAS CHROMATOGRAPHY

SAMPLE PREPARATION METHODS: HEXANE-EXTRACT
DETECTION METHODS : FID, FID, ECD

COMPOUND NAME	COMPOSITION OF: CODE	CAS NUMBER	VOLATILE ORGANICS (PPM)
TRICHLOROBENZENES	TCBS	0-55-5	955.0
OICHLOROBENZENE, META-	MDCB	541-73-1	1.4
TOTAL			956.4

SUMMARY OF VOLATILE ORGANIC COMPOSITION BY COMPOUND CHEMICAL CLASS PPM:

ALCOHOLS	ALIPHATIC HYDROCARBONS
AROMATIC HYDROCARBONS	CHLORINATED SOLVENTS : 956.4
ESTERS	ETHERS
GLYCOL ETHERS	INHIBITORS
KETONES	NITROGEN COMPOUNDS

/000 Limit.

SPECIFIC ORGANIC COMPOSITION

POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

ADDITIONAL ANALYTICAL INFORMATION: TOTAL SAMPLE=86.8% MHC, 13.2% TO BY FID

LABORATORY REVIEW: A
LEVEL: 1 SEG CODE: RELEASED: 07/22/91
LAB REVIEWERS: KES KES ANALYZED: 07/22/91

TRACKING INFORMATION:

	DATE	FACILITY
SURVEY RECEIVED :	06/27/91	SK NEWCASTLE, KY
SAMPLE RECEIVED :		
RESAMPLE SHIPPED :		
RESAMPLE RECEIVED:		

THE ANALYSES CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITY.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS REQUIRED UNDER 40 CFR PART 268.
EPA WASTE CODES FOR LDR: F001
ANALYSIS DOES NOT INDICATE THAT MATERIAL IS CALIFORNIA LIST HALOGENATED ORGANIC COMPOUND WASTE.

Form Approved. OMB No. 2050-0028. Expires 10-31-91

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only.

EPA Resource Conservation and Recovery Act (RCRA) Subtitle C Site Identification Form

Date Received (For Official Use Only)

I. Reason for Submission

[ ] A. New Notification [X] B. Revised Notification

EPA ID Number: OHD000341917

II. Name of Site

CAMPBELL SOUP COMPANY

III. Site Location Information

Street: ROUTE 110 EAST

Mail (if different): BOX 311

City or Town: NAPOLEON

County: HENRY

State: OH

ZIP Code: 43545-

IV. Facility Owner

Name of Owner: SAME

If Owner is a Business, Provide Dun & Bradstreet Number:

V. Operator Information

Name of Operator: SALSBURY LABORATORIES

If Operator is a Business, Provide Dun & Bradstreet Number:

VI. Type of Regulated Waste Activity

[X] A. Hazardous Waste Activity [ ] B. Used Oil Activity

VII. Description of Hazardous Waste Activities

A. Storage, Treatment, and/or Disposal of Hazardous Waste

Facility EPA ID No.:

Name of Owner: CAMPBELL SOUP COMPANY

Street or Route No.: ROUTE 110 EAST

City or Town: NAPOLEON

State: OH

ZIP Code: 43545-

Check All Applicable Activities and Processes:

[X] 1. Storage [X] 2. Treatment [ ] 3. Disposal

Check All Applicable Units:

[ ] A. Container [ ] B. Tank [ ] C. Surface Impoundment [ ] D. Waste Pile [ ] E. Land Treatment [ ] F. Landfill [ ] G. Incinerator [ ] H. Boiler [ ] I. Furnace [ ] J. Underground Injection [ ] K. Other (Specify)

Describe Each Process Checked Above:

B. Transporter Activities

Check All Applicable Activities:

[ ] 1. Transporter [ ] 2. Transfer Facility

Check All Applicable Modes:

[ ] A. Highway [ ] B. Rail [ ] C. Water [ ] D. Air [ ] E. Other (Specify)

C. Generator Activities

Check All Applicable Activities:

[ ] 1. On-Site Generator [ ] 2. Off-Site Generator

Check All Applicable Waste Streams:

[ ] A. Listed Hazardous Waste [ ] B. Characteristic Hazardous Waste [ ] C. Mixed Radioactive Waste

Estimated Quantity of Hazardous Waste Generated Each Year:

Check All Applicable Processes:

[ ] 1. Recycling [ ] 2. Exempt Recycling [ ] 3. Reuse [ ] 4. Exempt Reuse [ ] 5. Treatment [ ] 6. Exempt Treatment [ ] 7. Energy Recovery [ ] 8. Exempt Energy Recovery [ ] 9. Other (Specify)

Describe Each Process Checked Above:

D. Used Oil Activities

Check All Applicable Activities:

[ ] 1. Used Oil Generator [ ] 2. Used Oil Transporter [ ] 3. Used Oil Processor [ ] 4. Used Oil Re-refiner [ ] 5. Used Oil Burner [ ] 6. Used Oil Fuel Marketer [ ] 7. Used Oil Disposal

Check All Applicable Used Oil Specifications:

[ ] A. Specification Used Oil [ ] B. Off-Specification Used Oil

Check All Applicable Used Oil Materials:

[ ] A. Used Oil [ ] B. Used Oil Mixed with Hazardous Waste [ ] C. Used Oil Mixed with Characteristic Hazardous Waste [ ] D. Used Oil Mixed with Non-Hazardous Solid Waste [ ] E. Used Oil Mixed with Dioxin-Containing Hazardous Waste [ ] F. Used Oil Mixed with Halogenated Hazardous Waste [ ] G. Used Oil Mixed with Non-Halogenated Hazardous Waste [ ] H. Used Oil Mixed with Other Hazardous Waste [ ] I. Used Oil Contaminated with Hazardous Waste [ ] J. Used Oil Contaminated with Non-Hazardous Solid Waste

Estimated Quantity of Used Oil Handled Each Year:

VIII. Description of Hazardous Waste

A. Name of Waste: CAMPBELL SOUP COMPANY

B. Waste Code: ROUTE 110 EAST

C. Physical State: NAPOLEON OHA9548-

D. Physical Form: A19-592-1010 [ ] P [ ] P [ ] [X]

Please print or type with ELITE type (12 charact[illegible]er inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028. Expires 10-31-91
GSA No. 0246-EPA-OT

For Official Use Only

VIII. Type of Regulated Waste Activity (Mark "X" in the appropriate boxes. Refer to instructions.)

A. Regulated Waste Activity

1. [illegible]
   - [X] a. [illegible]
   - [X] b. [illegible]
   - [ ] c. [illegible]
2. Transporter (Indicate Mode in boxes 1-5 below)
   - [ ] a. For own waste only
   - [ ] b. For commercial purposes
   - Mode of Transportation
     - [ ] 1. Air
     - [ ] 2. Rail
     - [ ] 3. Highway
     - [ ] 4. Water
     - [ ] 5. Other (specify)
3. [illegible]
4. [illegible]
   - [ ] a. [illegible]
   - [ ] b. [illegible]
   - [ ] c. [illegible]
   - [ ] 1. [illegible]
   - [ ] 2. [illegible]
   - [ ] 3. [illegible]
   - [ ] 4. [illegible]
5. [illegible]

B. [illegible]

1. [illegible]
   - [ ] a. [illegible]
   - [ ] b. [illegible]
   - [ ] c. [illegible]
   - [ ] 1. [illegible]
   - [ ] 2. [illegible]
   - [ ] 3. [illegible]
2. [illegible]
   - [X] a. [illegible]

IX. Description of Regulated Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. [illegible]

1. Ignitable (D001) 2. Corrosive (D002) 3. Reactive (D003) 4. Toxicity Characteristic (D004)

[illegible]

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic (D004)	[illegible]	[illegible]
X					

B. Listed Hazardous Wastes. [illegible]

1	2	3	4	5	6
D001	D008	F001	F005		
7	8	9	10	11	12

C. Other Wastes. [illegible]

1	2	3	4	5	6

X. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature	Name and Official Title (type or print)	Date Signed
[signature]	L.M. Brown - Plant Manager	9-9-91

XI. Comments

[illegible]

EPA Form 8700-12 (07-90) Previous edition is obsolete. - 2 -

OhioEPA
State of Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
P.O. Box 466
Bowling Green, Ohio 43402-0466
(419) 352-8461 FAX (419) 352-8468

George V. Voinovich
Governor

Re: Campbell Soup Company
OHD 005 419 171
Hazardous Waste
Henry County

September 5, 1991

Mr. Herbert H. Salsbury
Campbell Soup Company
P.O. Box 3011
Napoleon, Ohio 43545

Dear Mr. Salsbury:

This letter is to reply to questions raised during our August 5, 1991 meeting and subsequent phone conversation. The following concerns were raised.

1. During transfer of enamel paint, spills occur on the cement outside of the diked area above the underground storage tank. These spills are difficult to contain and clean. The Ohio EPA recommends the use of drip pans and that the transfer of paint take place within the dike. The Ohio EPA recommends removal of the gravel contained in the diked area. This gravel must be evaluated and disposed of accordingly.

2. During our meeting we discussed Campbell Soup Company's wish to distill onsite "O Thinner" and "Mineral Spirits". This process may be conducted; however, the resulting still bottoms must be handled as a hazardous waste if they exhibit any of the hazardous waste characteristics.

3. Campbell Soup Company plans to continue to burn waste oil. Questions were raised as to whether the company qualifies as an exempt small quantity burner. This exemption is addressed in the Federal Register, Vol. 56, No. 35, pp. 7189-7192. Art Coleman of the Ohio EPA summarized the exemption of small quantity burners in the following two paragraphs:

> *Facilities which burn small quantities of hazardous wastes on site are exempt from regulation if: (1) the instantaneous firing rate is limited to 1% of the total fuel burned, (2) the facility does not burn acutely hazardous waste containing dioxins (eg. F020,*

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F021, F022, F023, F026, or F027), (3) the quantity of hazardous waste burned in a calendar month does not exceed terrain-adjusted effective stack height values (specified in the final rule table), (4) the unmixed hazardous waste is used to determine the 1% limit in "1", and (5) if more than one BIF is used to burn hazardous wastes on site, the quantity limits must be evaluated with reference to the formula specified in the final rule.

The owner/operator under the small quantity burner exemption is required to submit a one-time signed, written notice specifying that: (1) the combustion unit is operating as a small quantity burner of hazardous wastes, (2) that the owner/operator is complying with the provisions of the ruling, and (3) specify the maximum monthly quantity of hazardous wastes burned. In addition, the owner/operator must keep on file, for a period of three years, all information demonstrating compliance with the provisions of the ruling.

Specifically, Campbell Soup Company may burn 140 gallons/ month of used oil if the height of the boiler stack is 30.0 to 34.9 meters. The waste should be tested for total halogen content in order to determine dioxin content. If the total halogen content is less than 1000 ppm, the waste can be classified as used oil. If the total halogen content of the waste is between 1000 and 4000 ppm, the waste is classified as a hazardous waste unless the presumption can be rebutted. Used oil that contains more than 4000 ppm total halogens is unrebuttably classified as a hazardous waste.

4. Campbell Soup Company should have one EPA identification number. This number should be the same number as in the past, and describe all activities. When a change of status occurs, Campbell Soup Company must notify Ohio EPA and U.S. EPA via Ohio EPA. The contact is:

Thomas Crepeau, Manager
Data Management Section
Ohio EPA
P.O. Box 1049
Columbus, Ohio 43266-0149

The State of Ohio has not adopted many of the rules referred to in this letter. The U.S. EPA is responsible for enforcing the new boiler rules; therefore, future correspondence should be directed to the U.S. EPA Region V contact. The contact is:

Y.J. Kim
EPA Region V
230 South Dearborn Street
Chicago, IL 60604
(312) 353-2000

While touring the site the following violations were found.

1. **Ohio Revised Code (ORC) 3734.02** No person shall establish or operate a hazardous waste facility for the disposal of hazardous waste without a permit.

   Waste oil mixed with rain water was standing along the outside of the waste oil above ground storage tank and dike. When waste oil is transferred into the tank, spills occur outside of the cement dike. Although the area is covered by a roof, when it rains the spilled oil mixes with rain water. This situation constitutes illegal disposal. Campbell Soup Company must submit to the Ohio EPA within 15 days a plan describing steps to be taken to correct this problem.

2. **Ohio Administrative Code (OAC) 3745-52-11** Any person who produces a waste shall evaluate the waste to determine if it is hazardous in accordance with the criteria for hazardous waste set forth in Chapter 3745-51 of the Administrative Code. If the waste is determined to be hazardous, it must be managed properly.

   Specifically, a 55 gallon drum of unlabeled waste was located outside near the boiler. Campbell Soup Company must submit analytical records proving the content of the waste to the Ohio EPA within 15 days.

Please be advised that failure to comply with applicable hazardous waste rules may be cause for enforcement action by this Agency pursuant to Chapter 3734 of the Ohio Revised Code.

Please respond in writing to this Notice of Violation (NOV) within fifteen (15) days. Your response must include all actions and timetables necessary to demonstrate compliance.

Failure to list specific deficiencies in this communication does not relieve you from the responsibilities of complying with all applicable regulations.

If you have any questions, please advise.

Sincerely,

Maryann C. Seghy

Maryann C. Seghy
Division of Solid and
Hazardous Waste Management

/mtt

pc: A & C Representative
NWDO File

Campbell SOUP Company

NAPOLEON, OHIO 43545

December 12, 1986

Mr. Richard Dreschel
Ohio EPA NW District Office
1035 Devlac Grove Drive
Bowling Green, OH 43402-4598

Dear Mr. Dreschel:

In reference to your letter dated November 7, I have included the following:

Item (A) - A copy of the sludge test results
Item (B) - A copy of the specification for #1 and #3 boilers for requirement verification
Item (C) - A copy of test results on the waste burned for energy recovery which includes the BTU/lb.
Item (D) - A copy of EPA re-notification on Hazardous Waste Activity

The test results on the impounded sludge you viewed on October 31, 1986 shows that it does not contain any hazardous amounts of heavy metals or solvents. However, it does have a 50°C flash point which is only 10°C below the minimum. In accordance with Section 265.312, we plan to mix this sludge with dirt so that it no longer meets the ignitability characteristics and then place in an approved landfill.

Also during the October visit, Mr. Paul Kalter strongly recommended the use of a solvent recovery system. Our plant has initiated a project for the installation of a new recovery system and plan to have it installed and operating during 1987.

If you have any questions about this report, please contact me at 592-1010 ext. 343.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, Manager
Services & Utilities

cp
pc: Mr. J. S. Browning
Mr. J. M. Knape

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office
1035 Devlac Grove Drive
Bowling Green, Ohio 43402-4598
(419) 352-8461

Re: Henry County
Campbell Soup Company
HW

Richard F. Celeste
Governor

November 7,1986

NOTED
NOV 10 1986
HMS

Mr. Herbert Salsbury
Campbell Soup Company
Route 110 East
Napoleon, Ohio 43545

Dear Mr. Salsbury:

On October 31, 1986, Mr. Paul Kalter and I visited the Campbell Soup Company facility in Napoleon, Ohio. The purpose of this visit was to investigate an anonymous complaint concerning your handling of an enamel/solvent sludge from the can plant.

From our discussion it was understood that this solution of enamel and solvent is normally burned in your boiler for energy recovery. However, on the occasion in question, two different enamels were mixed, causing them to gel. After removing the free liquid, mainly solvents, the gel was cleaned from the holding tank using large amounts of water. The material removed from the tank was then taken to two temporary surface impoundments on the property. This cleaning operation was conducted by Heist Cleaning.

As we discussed on October 31, 1986, this may constitute improper disposal of a hazardous waste. Pending the results of sampling to be initiated by the Campbell Soup Company, no further action on this matter is warranted at this time. The samples should be tested for flash point, solvent, and metals content. A legible copy of the results should be forwarded to me at the OEPA in Bowling Green.

Your practice of burning the solvent/enamel waste for energy recovery purposes appears to be an acceptable practice at this time. You are regulated under Part 266 Subpart D (enclosed for your review). Please note that you must re-notify the U.S. EPA to identify your hazardous waste fuel activities (form enclosed).

Please send this office verification that the boiler meets the requirements of CFR Section 260.10 (enclosed) and notify us of the BTU value of all wastes burned for energy recovery. If this value is below 8000 BTU/lb for any waste going to the boiler, you will be regulated under Section 265 Subpart O because this will constitute destruction and not burning as a fuel.

Pleae feel free to contact me at 352-8461 if you have any questions or if I can be of any further help.

Sincerely,

Richard Dreschel
District Engineer

RD/lst

Campbell SOUP Company

NAPOLEON, OHIO 43545

BH 3-29-91 Just update permit
No EAR

February 12, 1991

RECEIVED
FEB 13 1991
OHIO EPA
N. W. D. O.

Mr. Gerald Rich
Ohio Environmental Protection Agency
Northwest District Office
1035 Delvac Grove Drive
Bowling Green, Ohio 43402

Dear Mr. Rich:

In 1975, due to the gas shortage, the Napoleon Plant was looking for alternate energy sources. During this study we discovered that we were throwing away a lot of spent enamel waste that had a good BTU valve, so a program was developed to burn it in our boilers as a fuel. At first we encountered some problems when mixing oil base and water base enamels together before burning so we developed a separate spray burner for each. The oil base enamel waste is burned along with our #6 oil in boiler B003. On the average we will burn 100 - 200 gallons a day of oil base enamel waste with 15,000 gallons of #6 oil. Our water base enamel waste is burned along with coal in boiler B002. On the average we burn 50 - 100 gallons a day of water base enamel waste along with 84 tons of coal.

Since our enamel waste had a BTU value and was being used as a fuel in our large industrial boilers the waste was not considered hazardous under the R.C.R.A. regulations which became law in 1980.

In 1986, Mr. Paul Kalter and Mr. Richard Dreschel, from the Ohio E.P.A., visited our plant to investigate an anonymous complaint. I have included copies of our correspondence because it verifies the fact that the E.P.A. knows we are using the enamel waste as a fuel and it includes test data along with a copy of the E.P.A. re-notification on hazardous waste activity.

- continue -

However, my present boiler permits due not include any language covering these waste activities. We are requesting that this data becomes part of permits B002 and B003.

Sincerely,

CAMPBELL SOUP COMPANY

Herbert H. Salsbury
Manager, Services & Utilities

dr

A portion of the material was analyzed by gas chromatography for solvent content. A complex spectra resembling paint solvents was found to be present, but is a concentration of less than 1 percent. Without analysis by mass spectrometry, we cannot positively identify each component of the material.

Based on the above results, the sludge is a hazardous waste on the basis of ignitability (the flash point is too low).

If you have any questions, please feel free to contact us.

Very truly yours,

ENVIRONMENTAL CONSULTANTS, INC.

John R. Rose,
Chemist

dlc

1 - client

ITEM (A)

Environmental Consultants, Inc.

Registered Engineers
Industrial Hygienists
Chemists and
Geologists

cc. Herb Salsbury ✓ 55

November 30, 1986

Mr. ~~Joseph Downham~~ Herb
Campbell Soup Company
P. O. Box 3011
Napoleon, Ohio 43545

RE: WASTE SLUDGE ANALYSIS
E.C.I. JOB NUMBER 354

Dear Mr. Downham:

On November 11, 1986, our laboratory received one (1) waste sludge from your firm for analysis. The purpose of the analysis was to determine if the sludge would be considered a hazardous waste as defined in 40 CFR Part 261 "Identification and Listing of Hazardous Waste". The sample was analyzed in accordance with SW-846 "Test Methods for Evaluating Solid Waste".

The results of the analysis were as follows:

PARAMETER	CONCENTRATION (mg/l)	MAXIMUM ALLOWABLE LIMITS (mg/l)
Arsenic	< 0.01	5.0
Cadmium	< 0.01	1.0
Chromium	< 0.01	5.0
Barium	3.5	100.0
Lead	< 0.1	5.0
Mercury	0.001	0.2
Selenium	< 0.01	1.0
Silver	< 0.02	5.0
pH	7.23	≤2 or ≥12.5
Flash point	50°C	60°C minimum

1810 N. 12th Street P. O. Box 2104
Toledo, Ohio 43603
(419) 241-7127

FOR OFFICIAL USE ONLY

Premise No. ___/___/___/___
Source No. ___/_____
Application No. ___/_____

ITEM (B)

APPENDIX B:

FUEL BURNING EQUIPMENT

(Boilers, Heaters, and Steam Generators)

1. Manufacturer Riley Stoker Corporation Model No. TG

2. Your identification Boiler #1 82811 Year Installed 1956

3. Input capacities (10^6 BTU/hr.): Rated 90 Max. 98.4 Normal 73
   Output capacities (lbs.-steam/hr.): Rated 73,500 Max. 80,400 Normal 60,000
   Note: Indicate units if different than above.

4. Percent used for: Space heat 14 % Process 86 % Power 0 %

5. Normal Operating schedule: 24 hrs./day, 7 days/wk., 50 wks./year

6. Type of fuels fired: ☒ Coal ☐ Oil ☐ Natural gas
   ☐ Wood ☐ LPG ☐ Other, specify

7. Type of draft: ☐ Natural ☒ Induced ☐ Forced

8. Combustion Monitoring: ☒ Fuel/air ratio ☒ O_2 ☒ Smoke
   ☐ Other, specify

COAL FIRED UNITS

9. Type of firing: ☐ Hand-fired ☐ Underfeed stoker ☒ Traveling grate
   ☐ Chain grate ☐ Spreader stoker ☐ Cyclones
   ☐ Pulverized-dry bottom
   ☐ Pulverized-wet bottom
   ☐ Other, specify

10. Fly ash reinjection: ☐ Yes ☒ No

OIL FIRED UNITS

11. Type of oil: ☐ No. 2 ☐ No. 6 ☐ Other, specify

12. Atomization: ☐ Oil pressure ☐ Steam pressure ☐ Compressed air
    ☐ Rotary cup ☐ Other, specify

13. Oil preheater: ☐ Yes, Temp. _____ °F. ☐ No

OHIO ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR A PERMIT TO OPERATE
AN AIR CONTAMINANT SOURCE

FOR OHIO EPA USE ONLY

APS APPL NO _____
DATE RECEIVED _____

Campbell Soup Company Facility Name	Herbert H. Salsbury Person to Contact
Route #5 Facility Address	Route #5 Mailing Address
Napoleon / Henry / 43545 City / County / Zip	Napoleon / Ohio / 43545 City / State / Zip
Napoleon / 419 / 592-1010 Telephone / Area / Number	Napoleon / 419 / 592-1010 Telephone / Area / Number
0335010105B001 (Application No., if this is a renewal application)	2032 Standard Industrial Classification Cod

1. Complete and attach any of the following appendices most appropriate to the air contaminant source. In addition, a compliance time schedule form is to be attached when applicable. Check as appropriate the following:

___Appendix A, Process
x Appendix B, Fuel-Burning Equipment
___Appendix C, Incinerator
___Appendix D, Surface Coating or Printing Operation
___Appendix E, Storage Tank
___Appendix H, Gasoline Dispensing Facility
___Appendix J, Loading Rack at Bulk Gasoline Plant or Terminal
___Appendix K, Surface Coating Line or Printing Line
___Appendix L, Solvent Metal Cleaning
___Appendix M, Fugitive Dust Emission Source
(Specify Appendix No.)
___Appendix N, Rubber Tire Manufacturing
___Appendix O, Dry Cleaning Facility
___Appendix P, Synthesized Pharmaceutical Manufacturing
___Other Appendix
___Compliance Time Schedule

2. Description of Source (same as used on appendix):

98.4 mmBTU/Hr, coal boiler w/ESP

3. Your identification for Source (same as used on appendix):

82811 Boiler #1

I, being the individual specified in Rule 3745-35-02(B) of the Ohio Administrative Code, hereby apply for a Permit to Operate the air contaminant source(s) described herein. As required, the following additional documents are submitted as part of this application (describe all attachments):

H. A. DeVenoes
Authorized Signature*

Plant Manager
Title

10/19/83
Date

*Pursuant to OAC Rule 3745-35-02(B) (Permit to Operate).

EPA-3161

ITEM (B)

OFFICIAL USE ONLY

Premise No. ___/___/___/___
Source No. ___/_____
Application No. ___/_____

APPENDIX B;

FUEL BURNING EQUIPMENT

(Boilers, Heaters, and Steam Generators)

1. Manufacturer Combustion Engineering Model No. 20A-13

2. Your identification #3 boiler 93541 Year Installed 1970

3. Input capacities (10^6 BTU/hr.): Rated 114.0 Max. 114.0 Normal 69.0
Output capacities (lbs.-steam/hr.): Rated 100,000 Max. 100,000 Normal 60,000
Note: Indicate units if different than above.

4. Percent used for: Space heat 14 % Process 86 % Power ____ %

5. Normal Operating schedule: 24 hrs./day, 1-5 days/wk., 50 wks./year (load varies)

6. Type of fuels fired: ☐ Coal ☒ Oil ☐ Natural gas
☐ Wood ☐ LPG ☐ Other, specify ____

7. Type of draft: ☐ Natural ☐ Induced ☒ Forced

8. Combustion Monitoring: ☒ Fuel/air ratio ☒ O_2 ☐ Smoke
☐ Other, specify ____

COAL FIRED UNITS

9. Type of firing: ☐ Hand-fired ☐ Underfeed stoker ☐ Traveling grate
☐ Chain grate ☐ Spreader stoker ☐ Cyclones
☐ Pulverized-dry bottom
☐ Pulverized-wet bottom
☐ Other, specify ____

10. Fly ash reinjection: ☐ Yes ☐ No

OIL FIRED UNITS

11. Type of oil: ☐ No. 2 ☒ No. 6 ☐ Other, specify ____

12. Atomization: ☐ Oil pressure ☒ Steam pressure ☐ Compressed air
☐ Rotary cup ☐ Other, specify ____

13. Oil preheater: ☒ Yes, Temp. 180 °F. ☐ No

OHIO ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR A PERMIT TO OPERATE
AN AIR CONTAMINANT SOURCE

FOR OHIO EPA USE ONLY

APS APPL NO _____
DATE RECEIVED _____

Campbell Soup Company	Herbert H. Salsbury
Facility Name	Person to Contact
Route #5	Campbell Soup Company, Route 5
Facility Address	Mailing Address
Napoleon Henry 43545	Napoleon Ohio 4354[illegible]
City County Zip	City State Z
Napoleon 419 592-1010	Napoleon 419 592-1010
Telephone Area Number	Telephone Area Number

0335010105B003
(Application No., if this is a renewal application)

1. Complete and attach any of the following appendices most appropriate to the air contamin source. In addition, a compliance time schedule form is to be attached when applicable. Check as appropriate the following:

____Appendix A, Process
__x__Appendix B, Fuel-Burning Equipment
____Appendix C, Incinerator
____Appendix D, Surface Coating or Printing Operation
____Appendix E, Storage Tank
____Appendix H, Gasoline Dispensing Facility
____Appendix J, Loading Rack at Bulk Gasoline Plant or Terminal
____Appendix K, Surface Coating Line or Printing Line
____Appendix L, Solvent Metal Cleaning
____Appendix M, Fugitive Dust Emission Sour
_____ (Specify Appendix No.)
____Appendix N, Rubber Tire Manufacturing
____Appendix O, Dry Cleaning Facility
____Appendix P, Synthesized Pharmaceutical Manufacturing
____Other Appendix _____
____Compliance Time Schedule

2. Description of Source (same as used on appendix): _____

#6 oil-fired boiler - 114 MMBTU/Hr. (Max.)

3. Your Identification for Source (same as used on appendix): _____

#3 boiler 93541

I, being the individual specified in Rule 3745-35-02(B) of the Ohio Administrative Code, here apply for a Permit to Operate the air contaminant source(s) described herein. As required, t following additional documents are submitted as part of this application (describe all attac ments):

H. W. Salsbury
Authorized Signature*

Plant Manager
Title

6/30/93
Date

*Pursuant to OAC Rule 3745-35-02(B) (Permit to Operate).

EPA 3161

ITEM (C)

NALCO

REPORT OF FUEL OIL ANALYSIS

FROM:
CAMPBELLS SOUP
NAPOLEON, OHIO

SAMPLE MARKED:
RECOVERED LACQUER

ANALYSIS NO: 545017
DATE SAMPLED: 5/24/76
DATE RECEIVED: 6/ 2/76
DATE PRINTED: 6/10/76

SPENT LACQUER
OIL BASE

INORGANIC ANALYSIS OF OIL (PPM)		OTHER TESTS	
CALCIUM (CA)	190	PERCENT ASH	0.07
SILICON (SI)	60	PERCENT SULFUR (S)	<0.01
MANGANESE (MN)	38	BTU'S PER POUND	18210
IRON (FE)	35	VISCOSITY	9.20
SODIUM (NA)	<1	SPECIFIC GRAVITY AT 60F	0.871
MAGNESIUM (MG)	2	132,280 BTU'S/GAL.	

THE FOLLOWING ELEMENTS WERE NOT DETECTED:
PB CU NI V BA AL

James J. Hickey

NALCO CHEMICAL COMPANY
6216 W. 66TH PLACE • CHICAGO, ILLINOIS 60638

ITEM D

Please print or type with ELITE type (12 charac ...er inch) in the unshaded areas only

...rm Approved. OMB No. 2050-0028, Expires 9-30-88.
GSA No. 0246-EPA-OT

United States Environmental Protection Agency
Washington, DC 20460

EPA Notification of Hazardous Waste Activity

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

For Official Use Only

Comments

C C

Installation's EPA ID Number		Approved	Date Received (yr. mo. day)
C F	T/A C 1		

I. Name of Installation

CAMPBELL SOUP COMPANY

II. Installation Mailing Address

Street or P.O. Box

C 3 ROUTE 110 EAST

City or Town	State	ZIP Code
C 4 NAPOLEON	OH	43545

III. Location of Installation

Street or Route Number

C 5 SAME

City or ...	State	ZIP Code
C 6		

IV. Installation Contact

Name and Title *(last, first, and job title)*	Phone Number *(area code and number)*
C 2 SALSBURY HERBERT	419 592 1010

V. Ownership

A. Name of Installation's Legal Owner	B. Type of Ownership *(enter code)*
C R CAMPBELL SOUP COMPANY	M

VI. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions.)*

A. Hazardous Waste Activity

- ☐ 1a. Generator ☐ 1b. Less than 1,000 kg/mo.
- ☐ 2. Transporter
- ☐ 3. Treater/Storer/Disposer
- ☐ 4. Underground Injection
- ☒ 5. Market or Burn Hazardous Waste Fuel *(enter 'X' and mark appropriate boxes below)*
  - ☐ a. Generator Marketing to Burner
  - ☐ b. Other Marketer
  - ☒ c. Burner

B. Used Oil Fuel Activities

- ☐ 6. Off-Specification Used Oil Fuel *(enter 'X' and mark appropriate boxes below)*
  - ☐ a. Generator Marketing to Burner
  - ☐ b. Other Marketer
  - ☐ c. Burner
- ☐ 7. Specification Used Oil Fuel Marketer *(or On site Burner)* Who First Claims the Oil Meets the Specification

VII. Waste Fuel Burning: Type of Combustion Device *(enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.)*

☐ A. Utility Boiler ☒ B. Industrial Boiler ☐ C. Industrial Furnace

VIII. Mode of Transportation *(transporters only — enter 'X' in the appropriate box(es)*

☐ A. Air ☐ B. Rail ☐ C. Highway ☐ D. Weter ☐ E. Other *(specify)*

IX. First or Subsequent Notification

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

☐ A. First Notification ☒ B. Subsequent Notification *(complete item C)*

C. Installation's EPA ID Number
OHD005419171

ID — F	Official Use Only		
C W		T/A	C 1

K. Description of Hazardous Wastes *(continued from front)*

A. Hazardous Wastes from Nonspecific Sources. Enter the four-digit number from 40 *CFR* Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
D001					
7	8	9	10	11	12

B. Hazardous Wastes from Specific Sources. Enter the four-digit number from 40 *CFR* Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. Commercial Chemical Product Hazardous Wastes. Enter the four-digit number from 40 *CFR* Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48

D. Listed Infectious Wastes. Enter the four-digit number from 40 *CFR* Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and reseerch laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 — 261.24)*

- ☒ 1. Ignitable *(D001)*
- ☐ 2. Corrosive *(D002)*
- ☐ 3. Reactive *(D003)*
- ☐ 4. Toxic *(D000)*

L. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature	Name and Official Title *(type or print)*	Date Signed
X J S Browning	J. S. Browning, Jr. Plant Manager	12/10/86

PURCHASE ORDER - (NON INGRE[illegible]NTS) REQUISITIONER'S COPY (ING.[illegible]IENTS) GENERAL OFFICE COPY

ORDER DATE	DELIVERY DATE	SHIP VIA	NO.
11-10-86	11-10-86	OUR DELIVERY	4-49444

ENVIRONMENTAL CONSULTANTS
TOLEDO TESTING
P. O. Box 2186
Toledo, OH 43603

SUBJECT TO, AND ACCEPTANCE LIMITED TO, THE TERMS AND CONDITIONS BELOW AND ON THE BACK HEREOF. PLEASE DELIVER TO US THE FOLLOWING GOODS:

Campbell SOUP Company
NAPOLEON, OHIO 43545

MAIL INVOICE TO ABOVE ADDRESS.

Item No.	QUANTITY ORDERED	UNIT	ITEM DESCRIPTION			PRICE
			Account Charge	Item Code or Req. No.	Storeroom No. or Requisitioner	
			060-626-549	M23844	MHS ST	

To cover the cost of testing container waste sludge for hazardous waste. Test to include:

1. Characteristics
   a. Ignitability
   b. Corrosivity
   c. Reactivity
   d. Toxicity

2. Flash Point

3. Solvent scan

4. Heavy Metals
   a. Arsenic
   b. Barrium
   c. Cadnium
   d. Chromium
   e. Lead
   f. Mercury
   g. Selenium
   h. Silver

LOT $450.00

ONLY FIRST CLASS WORKMANSHIP AND MATERIAL WILL BE ACCEPTED, SUBJECT TO OUR INSPECTION AND APPROVAL.

To insure prompt payment, your taxpayer's identification number (Social Security Number if an individual) must appear on each invoice.

SHIP TO AND DELIVER AT RECEIVING DEPARTMENT

Napoleon, Ohio

TRANSPORTATION CHARGES PREPAID

CAMPBELL SOUP COMPANY

PAYMENT TERMS:

Net 30 days

SUPERSEDES

Per phone conv. w/ Ray Fonger 11-6-86

JVD:cln

SUBJECT TO, AND ACCEPTANCE LIMITED TO, THE TERMS AND CONDITIONS ABOVE AND ON THE BACK HEREOF.

04-00-267 (REV. 1/76)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

Campbell Soup Co.
Route 110 E.
Napoleon OH 43545

REPLY TO THE ATTENTION OF:
RCRA ACTIVITIES

RE: EPA ID #: OHD005419171

In response to your request of 12-15-86 the following information has been updated: Type of Regulated Waste Activity
- Description of Hazardous Wasted

If you have any questions, please contact Sharon Kidden at 312/886-6173

Sincerely,

Arthur S. Kawatachi
Information Unit
Program Management Section

cc: State Agency
File

04

Campbell Soup Company

CAMDEN, NEW JERSEY 08101

November 18, 1982

Mr. Karl J. Klepitsch, Jr., Chief
Waste Management Branch
United States Environmental
Protection Agency
Region V
111 West Jackson Blvd.
Chicago, Illinois 60604

Dear Mr. Klepitsch:

Re: Permit Application Withdrawal Letter
Facility: Campbell Soup Company, Napoleon, Ohio (USEPA Id. No. OHD005419171)

Thank you for your letter and attachments of October 7, 1982, acknowledging receipt of our letter of July 16, 1981, which requested withdrawal of our Part A Hazardous Waste Permit Application for the above facility.

We again request withdrawal of our Part A Hazardous Waste Permit Application. As we have previously indicated, our filing of the application was merely "protective" or precautionary in nature. After sending you our application, we determined that since November 19, 1980, we did not at any time treat, store for 90 days or more, or dispose of hazardous waste at the above facility, nor have so treated, stored, or disposed of hazardous waste subsequently. Put another way, insofar as the above facility is concerned, we have not at any time since November 19, 1980 to date been the "owner" or "operator" of a "hazardous waste treatment, storage, or disposal facility", as set forth in 40 C.F.R., Part 265.

Accordingly, we respectfully again request to withdraw our permit application and respectfully submit that the filing of a closure plan with our withdrawal request is not required, and that other closure or post-closure provisions are also inapplicable.

For your information, and as previously indicated by us, we determined last year that of the two mixtures indicated on our permit application, one mixture (described by us as F017) in fact was erroneously identified by us as F017. This mixture was not, and has not at any time been, either F017 or any other listed or unlisted hazardous waste. Rather, it is an aqueous solution, with no or almost no alcohol content, and does not meet the characteristics of hazardous waste as defined in Part 261, Subpart C, of the U.S. Environmental Protection Agency's regulations issued pursuant to the Federal Resource Conservation and Recovery Act. The other mixture indicated by us on our permit application, F001, has a heat value of over 12,000 BTU's per gallon, has been beneficially used by us as a fuel supplement in our on-site boilers since 1978, continues to have beneficial use, and, it is submitted, therefore falls within the special provisions of 40 C.F.R., Section 261.6(a) for mixtures which are being beneficially used or reused or legitimately recycled or reclaimed. (In addition, this mixture is not a sludge, is not a listed hazardous waste, was not produced by mixing a listed with a non-listed waste, and therefore does not contain a listed hazardous waste, and therefore does not fall within 40 C.F.R., Section 261.3(a).)

Very truly yours,

CAMPBELL SOUP COMPANY

R. A. Zimmerman
Vice President -
General Plant Manager -
Canned Foods

Certified - RRR

hazardous • waste • facility • approval • board

James A. Rhodes, Governor
Wayne S. Nichols, Chairman

nwfab
P.O. Box 1049
361 E. Broad St.
Columbus, Ohio 43216
(614) 462-6981

Re: Withdrawal of Permit
Application No.: 81-HW-0459

Facility Location: Same as Address

August 19, 1981

Campbell Soup Co.
Route 110 East
Napoleon, Ohio 43545

Attn: H.H. Salsbury

Dear Mr. Salsbury:

The Hazardous Waste Facility Approval Board is in receipt of your July 13, 1981 letter stating withdrawal of your application for a Hazardous Waste Facility Installation and Operation Permit. Your application has subsequently been placed in an inactive file.

This action was taken pursuant to your letter but without review of the requirements set forth in Chapter 3734 of the Revised Code or the Hazardous Waste Rules. This action does not constitute an approval of your statement that the above referenced facility does not require a permit to treat, store and/or dispose of hazardous waste.

This matter has been referred to the Office of Hazardous Materials Management, Ohio EPA, for its review. If it is determined that the facility is required to obtain a Hazardous Waste Facility Installation and Operation Permit, that Office will contact you and provide any necessary information.

Sincerely,

Peggy Vince

Peggy Vince,
Coordinator, Hazardous
Waste Facility Approval Board

PV/ss

cc: Charles Wilhelm, Chief, OHMM

EPA 9003

Campbell SOUP Company

NAPOLEON, OHIO 43545

July 13, 1981

Withdrawal
81-HW-0459

RCRA Activities
P.O. Box 7861
Chicago, Illinois 60680

Gentlemen:

RE: EPA ID #OHD005419171

On November 19, 1980, Campbell Soup Company, located at Napoleon, Ohio, forwarded to your office a completed Hazardous Waste Permit Application. This was a precautionary or protective notification because we were uncertain whether or not the two mixtures we listed as F017 and D001 were subject to all regulations issued pursuant to the federal Resource Conservation and Recovery Act (RCRA). We have now determined that under the present regulations, including RCRA regulations Section 261.6, we are neither subject to the regulations affecting generators of hazardous waste nor to those affecting treatment, storage, or disposal facilities. We hereby request withdrawal of our RCRA Part A application filed November 19, 1980.

More specifically, as discussed in our April 7, 1981, letter to the Ohio EPA, copy attached, we have now determined that the mixture we listed as F017 in fact is neither F017 nor a listed or unlisted hazardous waste. (We also note that F017 has been at least temporarily delisted.) Moreover, the mixture we listed as D001 on our application has a heat value of over 132,000 BTU's per gallon, has been beneficially used by us on-site as a fuel supplement in our boilers for the last three years, and continues to be so beneficially used. Accordingly, pursuant to RCRA regulations, Section 261.6(a), this mixture is not subject to RCRA regulations, Parts 262-5, Parts 122-124, or RCRA, Section 3010.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, Manager
Services & Utilities

cp
attach.
cc: Ms. Peggy Vince, Permit Coordinator
Ohio EPA
Office of Hazardous Materials Management
361 E. Broad Street
Columbus, OH 43215

Applicant Name CAMPBELL SOUP COMPANY

H.W.F.A.B. ID No 81-HW-0459

County HENRY

☐ Form 1 (EPA Form 3510-1) All Items

Individual Items in Form 1

☐ Item I (EPA ID No.)

☐ Item II (Pollutant Characteristics)

☐ Item III (Name of Facility)

☐ Item IV (Facility Contact)

☐ Item V (Facility Mailing Address)

☐ Item VI (Facility Location)

☐ Item VII (SIC Codes)

☐ Item VIII (Operator Info.)

☐ Item IX (Indian Land)

☐ Item X (Exist. Env. Permits)

☐ Item XI (Topo Map)

☐ Item XII (Nature of Business)

☐ Form 3 (EPA Form 3510-3) All Items

Individual Items in Form 3

☐ Item I (EPA ID No.)

☐ Item II (First or Revised Appl.)

☐ Item III (Processes)

☐ Item IV (Haz. Waste Description)

☐ Item V (Facility Drawing)

(OVER)

☐ Item VI (Photographs) _____

☐ Item VII (Geog. Location) _____

☐ Item VIII (Facility Owner) _____

☐ Other _____

☐ Part A Application is Complete

Campbell SOUP Company

NAPOLEON, OHIO 43545

April 7, 1981

81-HW-0459

Hazardous Waste Task Force
P. O. Box 1049
361 E. Broad Street
Columbus, OH 43216

Gentlemen:

Pursuant to your request, enclosed please find a copy of the U.S. Environmental Protection Agency Hazardous Waste Application, Part A, filed by this plant November 19, 1980, as part of its obtaining and maintaining "interim status" as a treatment, storage, or disposal facility. As you will note, that Application referred to F017 as a hazardous waste in our plant.

However, we have now determined that the mixture we referred to as F017 on our Application is neither a listed nor unlisted hazardous waste, as defined by the Environmental Protection Agency's regulations issued pursuant to the federal Resource Conservation and Recovery Act, for the following reasons:

a. The Environmental Protection Agency has at least temporarily suspended F017 as a listed hazardous waste (January 16, 1981, Federal Register).
b. Although we referred to our mixture as F017 on our Application in an excess of caution, we have now determined, based on further knowledge of our own mixture, that our mixture in fact did and does not come within the definition of F017.
c. The mixture we referred to as F017 is an aqueous solution, with no or almost no alcohol content, and does not meet the characteristics of hazardous waste as defined in Part 261, Subpart C, of the Environmental Protection Agency's regulations issued pursuant to the federal Resource Conservation and Recovery Act.

'81 APR 22 PM 12

If there are any questions concerning this application, please call me at (419) 592-1010 ext. 343.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, Manager
Services & Utilities

cp
enc.
cc: U.S. EPA, Region V, RCRA Activities

Please print or type in the unshaded areas only (fill-in areas are spaced for elite type, i.e., 12 characters/inch). 81-HW-045

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: F OHD005419171

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X	
B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X		
D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)			X
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)			X
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	
J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

CAMPBELL SOUP COMPANY

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)	B. PHONE (area code & no.)
SALSBURY, HERBERT MGR.SERV.&UTIL.	419 592 1010

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX			
ROUTE 110 EAST			
B. CITY OR TOWN	**C. STATE**	**D. ZIP CODE**	
NAPOLEON	OH	43545	

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER			
SAME			
B. COUNTY NAME			
HENRY			
C. CITY OR TOWN	**D. STATE**	**E. ZIP CODE**	**F. COUNTY CODE**
NAPOLEON	OH	43545	

EPA Form 3510-1 (6-80)

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
2032 (specify) CANNING SPECIALTY FOODS	3491 (specify) METAL CANS - MANUFACTURING

C. THIRD	D. FOURTH
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME: CAMPBELL SOUP COMPANY

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)
F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC (other than federal or state); O = OTHER (specify)
P (specify)

D. PHONE (area code & no.): A 419 592 1010

E. STREET OR P.O. BOX: ROUTE 110 EAST

F. CITY OR TOWN: NAPOLEON

G. STATE: OH

H. ZIP CODE: 43545

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	D. PSD (Air Emissions from Proposed Sources)
N H2210AD	P

B. UIC (Underground Injection of Fluids)	E. OTHER (specify)
U	(specify) See Attachment 1

C. RCRA (Hazardous Wastes)	E. OTHER (specify)
R	(specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

THE NAPOLEON CAMPBELL SOUP PLANT PRODUCES A COMPLETE LINE OF HEAT PROCESSED SOUPS ALONG WITH SEVERAL TYPES OF VEGETABLE JUICES. THE PLANT ALSO HAS ITS OWN CONTAINER MANUFACTURING DEPARTMENT WHERE IT PRODUCES THE METAL CANS FOR ALL THE DIFFERENT PRODUCTS.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
A. M. Williams Senior Vice President	A M Williams	11/8/82

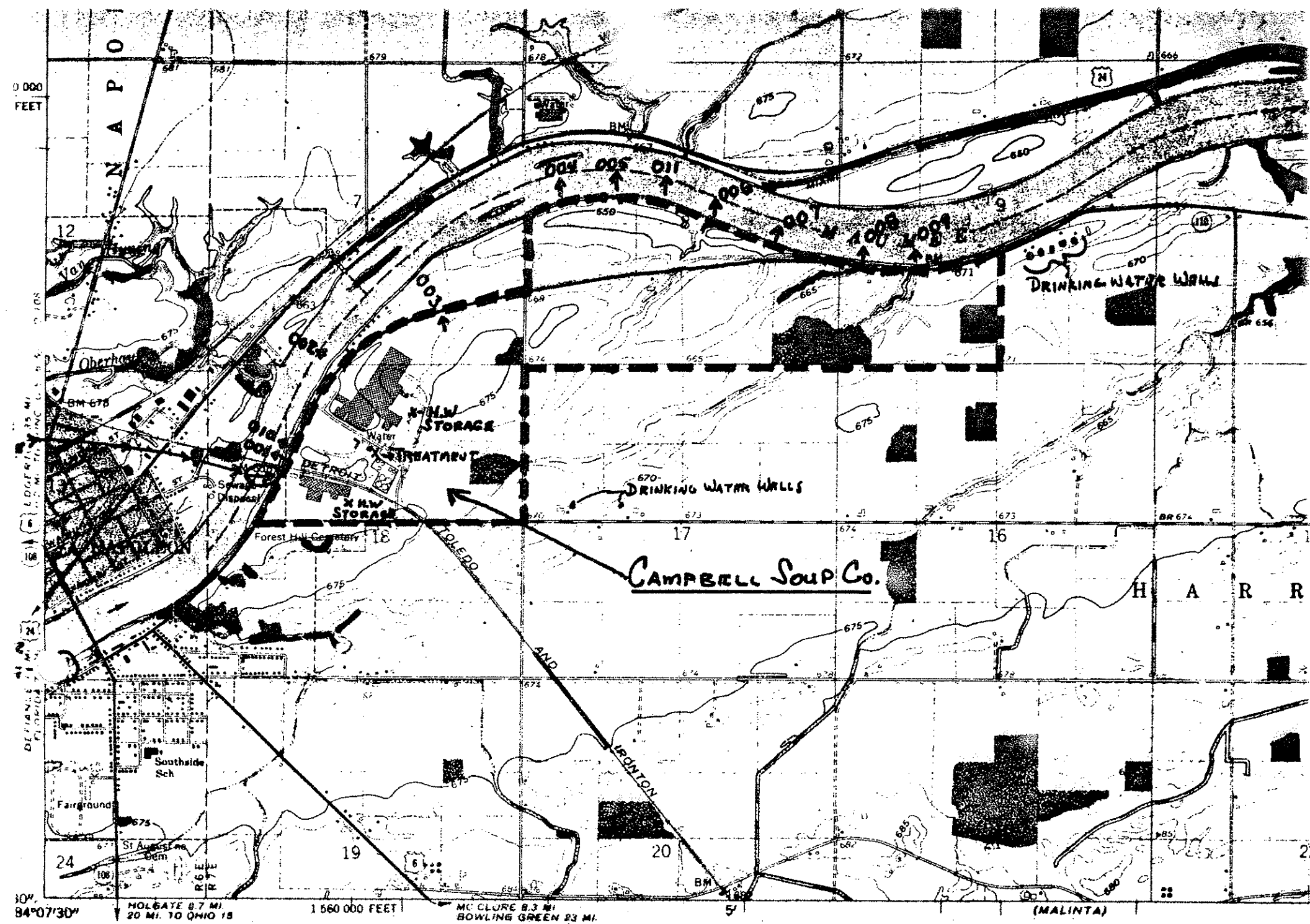
COMMENTS FOR OFFICIAL USE ONLY

FORM #1

ATTACHMENT #1

AIR EMISSION PERMITS

1. 0335010105-P001
2. 0335010105-P003
3. 0335010105-P004
4. 0335010105-P005
5. 0335010105-B001
6. 0335010105-B002
7. 0335010105-B003
8. Permit to Install #03-488



84°07'30"

HOLGATE 8.7 MI.
20 MI. TO OHIO 15

1 560 000 FEET

MC CLURE 8.3 MI.
BOWLING GREEN 23 MI.

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Culture and drainage in part compiled from aerial photographs

H.W. - HAZARDOUS WASTE.

SCALE 1:24 000

1 0 1 0

1000 0 1000 2000 3000 4000 5000 6000

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-S80004

FORM 3 RCRA

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

F O H D 0 0 5 4 1 9 1 7 1

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

YR.	MO.	DAY
5 7	0 8	0 1

[ ] 2. NEW FACILITY *(Complete item below.)*

FOR NEW FACILITIES PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN

YR.	MO.	DAY

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES – CODES AND DESIGN CAPACITIES

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY – For each code entered in column A enter the capacity of the process.

1. AMOUNT – Enter the amount.
2. UNIT OF MEASURE – For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNMENT	D83	GALLONS OR LITERS
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

C DUP 1

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	16,000	G		7				
2	T 0 4	7,680	U		8				
3	S 0 2	5,000	G		9				
4					10				

81-HW-0459

Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER (enter from page 1)		FOR OFFICIAL USE ONLY	
W O H D 0 0 5 4 1 9 1 7 1	T/A C 1	W DUP	T/A C 2 DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	F 0 1 7	107	T	S 0 1	
2	D 0 0 1	288	T	S 0 2 T 0 4	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

EPA Form 3510-3 (8-80)

CONTINUE ON REVERSE

Continued from the front.

III. PROCESSES *(continued)*

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES *(code "T04")*. FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

T04 - USED AS A FUEL TO SUPPLEMENT THE #6 OIL USED IN THE COMPANY'S #3 BOILER.

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER – Enter the four–digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four–digit number*(s)* from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non–listed waste*(s)* that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:
   For listed hazardous waste: For each listed hazardous waste entered in column A select the code*(s)* from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non–listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code*(s)* from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non–listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code*(s)*.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV *(shown in line numbers X-1, X-2, X-3, and X-4 below)* – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non–listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS W[illegible]ES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. (enter from page 1)

													T/A	C
F	0	H	D	0	0	5	4	1	9	1	7	1		6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).*

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground—level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).*

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)
41 23 55	84 06 40

VIII. FACILITY OWNER

[X] A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. (area code & no.)
E	

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
F	G		

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
A. M. Williams	A. M. Williams	11/18/80

X. OPERATOR CERTIFICATION

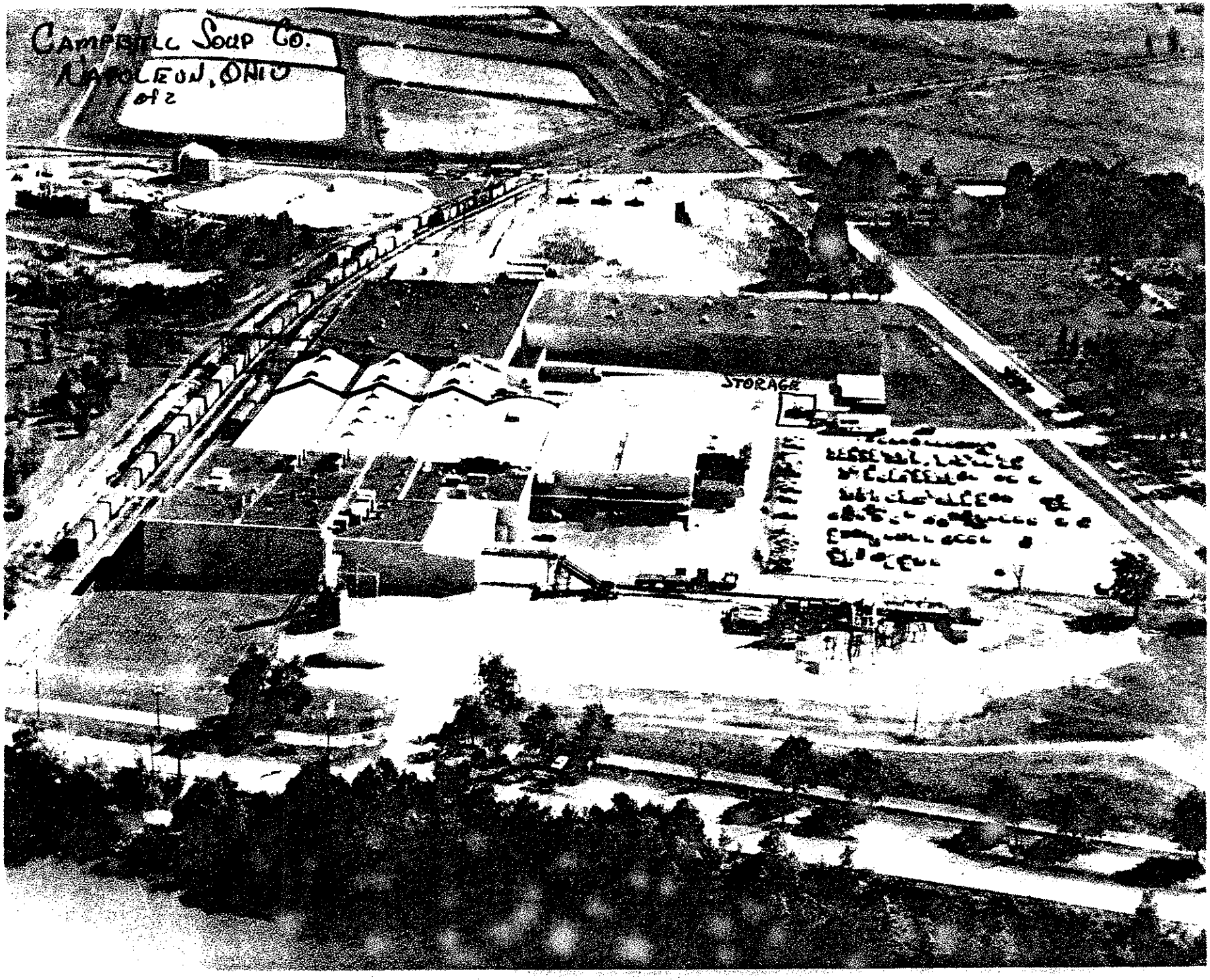
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

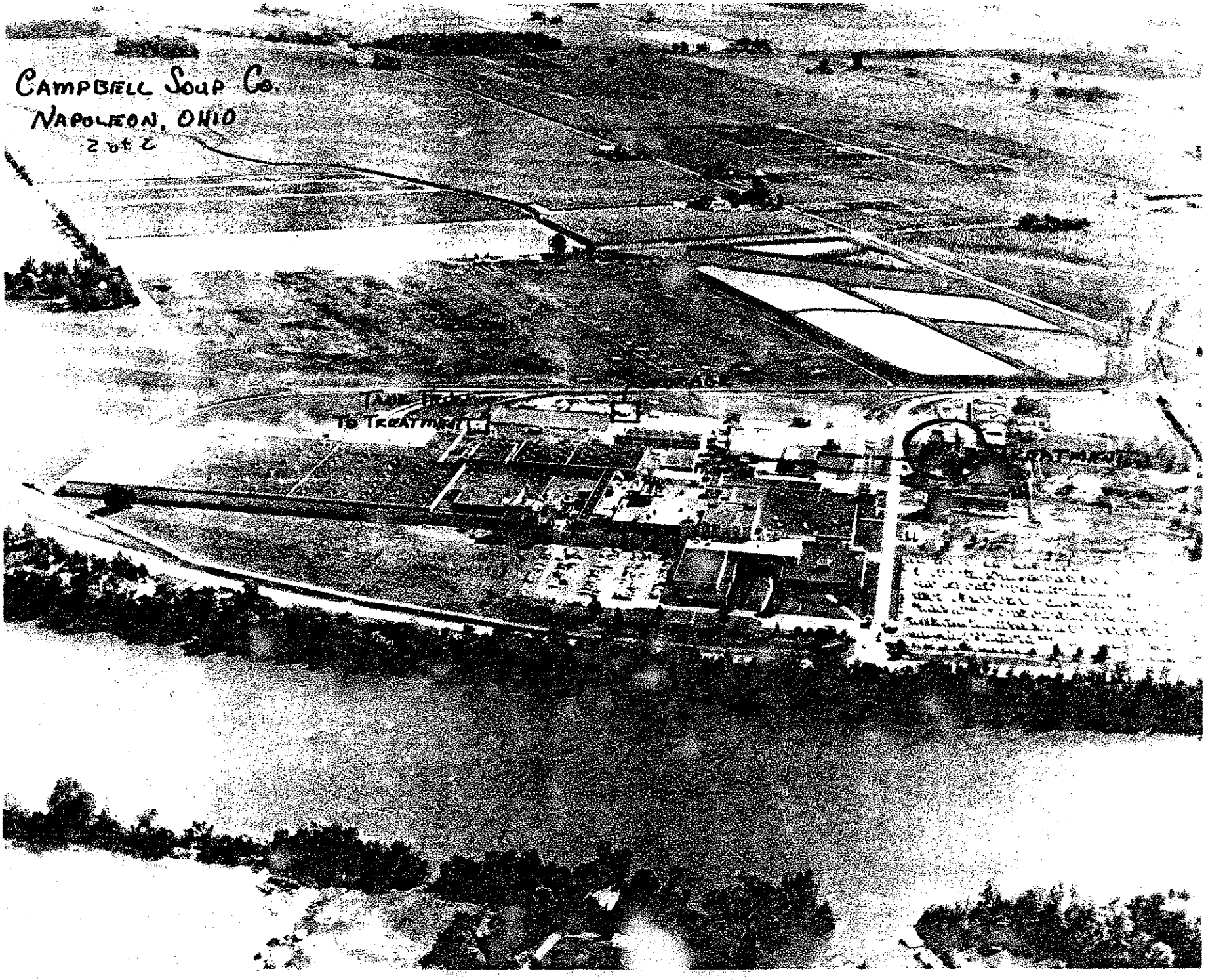
A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
F. DuVernois		11/18/80

Form Approved OMB No. 158-S80004

V. FACILITY DRAWING *(see page 4)*

DUE TO THE LARGE SIZE AND ACREAGE OF THE NAPOLEON PLANT, WE HAVE ATTACHED CAMPBELL SOUP DRAWING #NA-205810-C TO FULFILL INFORMATION NEEDED FOR ITEM V.


CAMPBELL SOUP CO.
NAPOLEON, OHIO
of 2
STORAGE


CAMPBELL SOUP CO.
NAPOLEON, OHIO
2 of 2

Campbell SOUP Company

NAPOLEON, OHIO 43545

file

December 12, 1986

RECEIVED
DEC 17 1986
OHIO EPA
N. W. D. O.

Mr. Richard Dreschel
Ohio EPA NW District Office
1035 Devlac Grove Drive
Bowling Green, OH 43402-4598

Dear Mr. Dreschel:

In reference to your letter dated November 7, I have included the following:

Item (A) - A copy of the sludge test results
Item (B) - A copy of the specification for #1 and #3 boilers for requirement verification
Item (C) - A copy of test results on the waste burned for energy recovery which includes the BTU/lb.
Item (D) - A copy of EPA re-notification on Hazardous Waste Activity

The test results on the impounded sludge you viewed on October 31, 1986 shows that it does not contain any hazardous amounts of heavy metals or solvents. However, it does have a 50°C flash point which is only 10°C below the minimum. In accordance with Section 265.312, we plan to mix this sludge with dirt so that it no longer meets the ignitability characteristics and then place in an approved landfill.

Also during the October visit, Mr. Paul Kalter strongly recommended the use of a solvent recovery system. Our plant has initiated a project for the installation of a new recovery system and plan to have it installed and operating during 1987.

If you have any questions about this report, please contact me at 592-1010 ext. 343.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, Manager
Services & Utilities

cp
pc: Mr. J. S. Browning
Mr. J. M. Knape

ITEM (A)

Environmental Consultants, Inc.

Registered Engineers
Industrial Hygienists
Chemists and
Geologists

CC. Herb Salsbury ✓ 55

November 30, 1986

RECEIVED
DEC 17 1986
OHIO EPA
N. W. D. O.

Mr. ~~Joseph Downham~~ Hirt
Campbell Soup Company
P. O. Box 3011
Napoleon, Ohio 43545

RE: WASTE SLUDGE ANALYSIS
E.C.I. JOB NUMBER 354

Dear Mr. Downham:

On November 11, 1986, our laboratory received one (1) waste sludge from your firm for analysis. The purpose of the analysis was to determine if the sludge would be considered a hazardous waste as defined in 40 CFR Part 261 "Identification and Listing of Hazardous Waste". The sample was analyzed in accordance with SW-846 "Test Methods for Evaluating Solid Waste".

The results of the analysis were as follows:

PARAMETER	CONCENTRATION (mg/l)	MAXIMUM ALLOWABLE LIMITS (mg/l)
Arsenic	< 0.01	5.0
Cadmium	< 0.01	1.0
Chromium	< 0.01	5.0
Barium	3.5	100.0
Lead	< 0.1	5.0
Mercury	0.001	0.2
Selenium	< 0.01	1.0
Silver	< 0.02	5.0
pH	7.23	≤2 or ≥12.5
Flash point	50°C	60°C minimum

1810 N. 12th Street P. O. Box 2104
Toledo, Ohio 43603
(419) 241-7127

A portion of the material was analyzed by gas chromatography for solvent content. A complex spectra resembling paint solvents was found to be present, but is a concentration of less than 1 percent. Without analysis by mass spectrometry, we cannot positively identify each component of the material.

Based on the above results, the sludge is a hazardous waste on the basis of ignitability (the flash point is too low).

If you have any questions, please feel free to contact us.

Very truly yours,

ENVIRONMENTAL CONSULTANTS, INC.

John R. Rose

John R. Rose,
Chemist

dlc

1 - client

FOR OFFICIAL USE ONLY

Premise No. ___/___/___/___
Source No. ___/_____
Application No. ___/_____

Item (B)

APPENDIX B:

FUEL BURNING EQUIPMENT

(Boilers, Heaters, and Steam Generators)

1. Manufacturer Riley Stoker Corporation Model No. TG

2. Your identification Boiler #1 82811 Year Installed 1956

3. Input capacities (10^6 BTU/hr.): Rated 90 Max. 98.4 Normal 73
Output capacities (lbs.-steam/hr.): Rated 73,500 Max. 80,400 Normal 60,000
Note: Indicate units if different than above.

4. Percent used for: Space heat 14 % Process 86 % Power 0 %

5. Normal Operating schedule: 24 hrs./day, 7 days/wk., 50 wks./year

6. Type of fuels fired: ☒ Coal ☐ Oil ☐ Natural gas
☐ Wood ☐ LPG ☐ Other, specify _____

7. Type of draft: ☐ Natural ☒ Induced ☐ Forced

8. Combustion Monitoring: [illegible] ratio ☒ O_2 ☒ Smoke
☐ Other, specify _____

COAL FIRED UNITS

9. Type of firing: ☐ Hand-fired ☐ Underfeed stoker ☒ Traveling grate
☐ Chain grate ☐ Spreader stoker ☐ Cyclones
☐ Pulverized-dry bottom
☐ Pulverized-wet bottom
☐ Other, specify _____

10. Fly ash reinjection: ☐ Yes ☒ No

OIL FIRED UNITS

11. Type of oil: ☐ No. 2 ☐ No. 6 ☐ Other, specify _____

12. Atomization: ☐ Oil pressure ☐ Steam pressure ☐ Compressed air
☐ Rotary cup ☐ Other, specify _____

13. Oil preheater: ☐ Yes, Temp. _____ °F. ☐ No

RECEIVED
DEC 17 1986
OHIO EPA
N. W. D. O.

OHIO ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR A PERMIT TO OPERATE
AN AIR CONTAMINANT SOURCE

APS APPL NO
DATE RECEIVED

Campbell Soup Company		
Facility Name		
Route #5		
Facility Address		
Napoleon	Henry	43545
City	County	Zip
Napoleon	419	592-1010
Telephone	Area	Number

Herbert H. Salsbury		
Person to Contact		
Route #5		
Mailing Address		
Napoleon	Ohio	43545
City	State	Zip
Napoleon	419	592-1010
Telephone	Area	Number

0335010105B001 (Application No., if this is a renewal application)

2032 Standard Industrial Classification Code

1. Complete and attach any of the following appendices most appropriate to the air contaminant source. In addition, a compliance time schedule form is to be attached when applicable. Check as appropriate the following:

___ Appendix A, Process
x Appendix B, Fuel-Burning Equipment
___ Appendix C, Incinerator
___ Appendix D, Surface Coating or Printing Operation
___ Appendix E, Storage Tank
___ Appendix H, Gasoline Dispensing Facility
___ Appendix J, Loading Rack at Bulk Gasoline Plant or Terminal
___ Appendix K, Surface Coating Line or Printing Line
___ Appendix L, Solvent Metal Cleaning
___ Appendix M, Fugitive Dust Emission Sources
___ (Specify Appendix No.)
___ Appendix N, Rubber Tire Manufacturing
___ Appendix O, Dry Cleaning Facility
___ Appendix P, Synthesized Pharmaceutical Manufacturing
___ Other Appendix
___ Compliance Time Schedule

2. Description of Source (same as used on appendix):

98.4 mmBTU/Hr, coal boiler w/ESP

3. Your identification for Source (same as used on appendix):

82811 Boiler #1

I, being the individual specified in Rule 3745-35-02(B) of the Ohio Administrative Code, hereby apply for a Permit to Operate the air contaminant source(s) described herein. As required, the following additional documents are submitted as part of this application (describe all attachments):

T. A. DeVenzois
Authorized Signature*

Plant Manager
Title

10/19/83
Date

*Pursuant to OAC Rule 3745-35-02(B) (Permit to Operate).

EPA-3161

OFFICIAL USE ONLY

Premise No. ___/___/___/____
Source No. ___/____
Application No. ___/____

APPENDIX B;

FUEL BURNING EQUIPMENT

(Boilers, Heaters, and Steam Generators)

1. Manufacturer Combustion Engineering Model No. 20A-13

2. Your identification #3 boiler 93541 Year Installed 1970

3. Input capacities (10^6 BTU/hr.): Rated 114.0 Max. 114.0 Normal 69.0
   Output capacities (lbs.-steam/hr.): Rated 100,000 Max. 100,000 Normal 60,000
   Note: Indicate units if different than above.

4. Percent used for: Space heat 14 % Process 86 % Power ____ %

5. Normal Operating schedule: 24 hrs./day, 1-5 days/wk., 50 wks./year (load varies)

6. Type of fuels fired: ☐ Coal ☒ Oil ☐ Natural gas
   ☐ Wood ☐ LPG ☐ Other, specify ____

7. Type of draft: ☐ Natural ☐ Induced ☒ Forced

8. Combustion Monitoring: ☒ Fuel/air ratio ☒ O_2 ☐ Smoke
   ☐ Other, specify ____

COAL FIRED UNITS

9. Type of firing: ☐ Hand-fired ☐ Underfeed stoker ☐ Traveling grate
   ☐ Chain grate ☐ Spreader stoker ☐ Cyclones
   ☐ Pulverized-dry bottom
   ☐ Pulverized-wet bottom
   ☐ Other, specify ____

10. Fly ash reinjection: ☐ Yes ☐ No

OIL FIRED UNITS

11. Type of oil: ☐ No. 2 ☒ No. 6 ☐ Other, specify ____

12. Atomization: ☐ Oil pressure ☒ Steam pressure ☐ Compressed air
    ☐ Rotary cup ☐ Other, specify ____

13. Oil preheater: ☒ Yes, Temp. 180 °F. ☐ No

OHIO ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR A PERMIT TO OPERATE
AN AIR CONTAMINANT SOURCE

FOR OHIO EPA USE ONLY

APS APPL NO _____
DATE RECEIVED _____

Campbell Soup Company	Herbert H. Salsbury
Facility Name	Person to Contact
Route #5	Campbell Soup Company, Route 5
Facility Address	Mailing Address
Napoleon Henry 43545	Napoleon Ohio 43545
City County Zip	City State Zip
Napoleon 419 592-1010	Napoleon 419 592-1010
Telephone Area Number	Telephone Area Number

0335010105B003
(Application No., if this is a renewal application)

1. Complete and attach any of the following appendices most appropriate to the air contaminan source. In addition, a compliance time schedule form is to be attached when applicable. Check as appropriate the following:

____Appendix A, Process
__x__Appendix B, Fuel-Burning Equipment
____Appendix C, Incinerator
____Appendix D, Surface Coating or Printing Operation
____Appendix E, Storage Tank
____Appendix H, Gasoline Dispensing Facility
____Appendix J, Loading Rack at Bulk Gasoline Plant or Terminal
____Appendix K, Surface Coating Line or Printing Line
____Appendix L, Solvent Metal Cleaning
____Appendix M, Fugitive Dust Emission Source
_____ (Specify Appendix No.)
____Appendix N, Rubber Tire Manufacturing
____Appendix O, Dry Cleaning Facility
____Appendix P, Synthesized Pharmaceutical Manufacturing
____Other Appendix _____
____Compliance Time Schedule

2. Description of Source (same as used on appendix): #6 oil-fired boiler - 114 MMBTU/Hr. (Max.)

3. Your Identification for Source (same as used on appendix): #3 boiler 93541

I, being the individual specified in Rule 3745-35-02(B) of the Ohio Administrative Code, hereby apply for a Permit to Operate the air contaminant source(s) described herein. As required, the following additional documents are submitted as part of this application (describe all attachments):

Authorized Signature*

Plant Manager
Title

6/30/83
Date

*Pursuant to OAC Rule 3745-35-02(B) (Permit to Operate).

EPA 3161

From (C)

NALCO

REPORT OF FUEL OIL ANALYSIS

FROM:
CAMPBELLS SOUP
NAPOLEON, OHIO

SAMPLE MARKED:
RECOVERED LACQUER

ANALYSIS NO: 545017
DATE SAMPLED: 5/24/76
DATE RECEIVED: 6/ 2/76
DATE PRINTED: 6/10/76

SPENT LACQUER
OIL BASE

INORGANIC ANALYSIS OF OIL (PPM)		OTHER TESTS	
CALCIUM (CA)	190	PERCENT ASH	0.07
SILICON (SI)	60	PERCENT SULFUR (S)	<0.01
MANGANESE (MN)	38	BTU'S PER POUND	18210
IRON (FE)	35	VISCOSITY	9.20
SODIUM (NA)	<1	SPECIFIC GRAVITY AT 60F	0.871
MAGNESIUM (MG)	2	132,280 BTU'S/GAL.	

THE FOLLOWING ELEMENTS WERE NOT DETECTED:
PB CU NI V BA AL

RECEIVED
DEC 1 / 1986
OHIO EPA
N.W.D.O.

James J. Hickey

NALCO CHEMICAL COMPANY
5216 W. 66TH PLACE • CHICAGO, ILLINOIS 60638

ITEM D

Please print or type with ELITE type (12 characte inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028. Expires 9-30-88.
GSA No. 0246-EPA-OT

United States Environmental Protection Agency
Washington, DC 20460

EPA Notification of Hazardous Waste Activity

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

For Official Use Only

Comments

C C

Installation's EPA ID Number | Approved | Date Received (yr. mo. day)

C F | T/A C 1

I. Name of Installation

CAMPBELL SOUP COMPANY

II. Installation Mailing Address

Street or P.O. Box

C 3 ROUTE 110 EAST

City or Town | State | ZIP Code

C 4 NAPOLEON | OH | 43545

III. Location of Installation

Street or Route Number

C 5 SAME

City or Town | State | ZIP Code

C 6

IV. Installation Contact

Name and Title *(last, first, and job title)* | Phone Number *(area code and number)*

C 2 SALSBURY HERBERT | 419 592 1010

V. Ownership

A. Name of Installation's Legal Owner | B. Type of Ownership *(enter code)*

C R CAMPBELL SOUP COMPANY | M

VI. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions.)*

A. Hazardous Waste Activity

- ☐ 1a. Generator ☐ 1b. Less than 1,000 kg/mo.
- ☐ 2. Transporter
- ☐ 3. Treater/Storer/Disposer
- ☐ 4. Underground Injection
- ☒ 5. Market or Burn Hazardous Waste Fuel *(enter 'X' and mark appropriate boxes below)*
  - ☐ a. Generator Marketing to Burner
  - ☐ b. Other Marketer
  - ☒ c. Burner

B. Used Oil Fuel Activities

- ☐ 6. Off-Specification Used Oil Fuel *(enter 'X' and mark appropriate boxes below)*
  - ☐ a. Generator Marketing to Burner
  - ☐ b. Other Marketer
  - ☐ c. Burner
- ☐ 7. Specification Used Oil Fuel Marketer *(or On site Burner)* Who First Claims the Oil Meets the Specification

RECEIVED
DEC 17 1986
OHIO EPA
N.W.D.O.

VII. Waste Fuel Burning: Type of Combustion Device *(enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.)*

☐ A. Utility Boiler ☒ B. Industrial Boiler ☐ C. Industrial Furnace

VIII. Mode of Transportation *(transporters only — enter 'X' in the appropriate box(es)*

☐ A. Air ☐ B. Rail ☐ C. Highway ☐ D. Water ☐ E. Other *(specify)*

IX. First or Subsequent Notification

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

☐ A. First Notification ☒ B. Subsequent Notification *(complete item C)*

C. Installation's EPA ID Number: OHD005419171

ID — F	Official Use Only																			T/A	C
C																					
W																					1

X. Description of Hazardous Wastes *(continued from front)*

A. **Hazardous Wastes from Nonspecific Sources.** Enter the four-digit number from 40 *CFR* Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
D001					
7	8	9	10	11	12

B. **Hazardous Wastes from Specific Sources.** Enter the four-digit number from 40 *CFR* Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. **Commercial Chemical Product Hazardous Wastes.** Enter the four-digit number from 40 *CFR* Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48

D. **Listed Infectious Wastes.** Enter the four-digit number from 40 *CFR* Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. **Characteristics of Nonlisted Hazardous Wastes.** Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 — 261.24)*

☒ 1. Ignitable *(D001)* ☐ 2. Corrosive *(D002)* ☐ 3. Reactive *(D003)* ☐ 4. Toxic *(D000)*

XI. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature	Name and Official Title *(type or print)*	Date Signed
X J S Browning	J. S. Browning, Jr. Plant Manager	12/15/86

File Campbell's Henry Co

bcc: Mr. F. A. DuVernois
Mr. A. F. George
Mr. R. C. Locke
Mr. C. Ullman

April 7, 1981

Hazardous Waste Task Force
P. O. Box 1049
361 E. Broad Street
Columbus, OH 43216

Gentlemen:

Pursuant to your request, enclosed please find a copy of the U.S. Environmental Protection Agency Hazardous Waste Application, Part A, filed by this plant November 19, 1980, as part of its obtaining and maintaining "interim status" as a treatment, storage, or disposal facility. As you will note, that Application referred to F017 as a hazardous waste in our plant.

However, we have now determined that the mixture we referred to as F017 on our Application is neither a listed nor unlisted hazardous waste, as defined by the Environmental Protection Agency's regulations issued pursuant to the federal Resource Conservation and Recovery Act, for the following reasons:

a. The Environmental Protection Agency has at least temporarily suspended F017 as a listed hazardous waste (January 16, 1981, Federal Register).
b. Although we referred to our mixture as F017 on our Application in an excess of caution, we have now determined, based on further knowledge of our own mixture, that our mixture in fact did and does not come within the definition of F017.
c. The mixture we referred to as F017 is an aqueous solution, with no or almost no alcohol content, and does not meet the characteristics of hazardous waste as defined in Part 261, Subpart C, of the Environmental Protection Agency's regulations issued pursuant to the federal Resource Conservation and Recovery Act.

If there are any questions concerning this application, please call me at (419) 592-1010 ext. 343.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, Manager
Services & Utilities

Copy sent to Tom Wray 7/21/81
Dietrich OEPA

cp
enc.
cc: U.S. EPA, Region V, RCRA Activities

File Campbells Kenny

bcc: Mr. F. A. DuVernois
Mr. A. F. George
Mr. R. C. Locke
Mr. C. Ullman

July 13, 1981

RCRA Activities
P.O. Box 7861
Chicago, Illinois 60680

Gentlemen:

RE: EPA ID #OHD005419171

On November 19, 1980, Campbell Soup Company, located at Napoleon, Ohio, forwarded to your office a completed Hazardous Waste Permit Application. This was a precautionary or protective notification because we were uncertain whether or not the two mixtures we listed as F017 and D001 were subject to all regulations issued pursuant to the federal Resource Conservation and Recovery Act (RCRA). We have now determined that under the present regulations, including RCRA regulations Section 261.6, we are neither subject to the regulations affecting generators of hazardous waste nor to those affecting treatment, storage, or disposal facilities. We hereby request withdrawal of our RCRA Part A application filed November 19, 1980.

More specifically, as discussed in our April 7, 1981, letter to the Ohio EPA, copy attached, we have now determined that the mixture we listed as F017 in fact is neither F017 nor a listed or unlisted hazardous waste. (We also note that F017 has been at least temporarily delisted.) Moreover, the mixture we listed as D001 on our application has a heat value of over 132,000 BTU's per gallon, has been beneficially used by us on-site as a fuel supplement in our boilers for the last three years, and continues to be so beneficially used. Accordingly, pursuant to RCRA regulations, Section 261.6(a), this mixture is not subject to RCRA regulations, Parts 262-5, Parts 122-124, or RCRA, Section 3010.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, Manager
Services & Utilities

cp
attach.
cc: Ms. Peggy Vince, Permit Coordinator
Ohio EPA
Office of Hazardous Materials Management
361 E. Broad Street
Columbus, OH 43215

Copy sent to Tom Wray 7/21/81
District OEPA

Re: OAC Chapter 3745
Senate Bill 269
Hazardous Waste Facility Permits

Campbell Soup Company
Attn: Herbert Salsbury
Route 110 East
Napoleon, OH 43545

July 15, 1981

Dear Mr. Salsbury:

The Ohio EPA is currently in the process of carrying out the provisions of Senate Bill 269 which pertains to issuance of State permits for hazardous waste treatment, storage, or disposal facilities (TSDF's). Ohio EPA personnel will be conducting TSDF inspections to insure compliance with Chapter 3745-50-- 3745-58 of the Ohio Administrative Code. These inspections are based on the Interim Status Standards found in the May 19, 1980 Federal Register which Ohio has adopted and referenced by OAC numbers. The applicable sections of these regulations, identified by both State and Federal Code numbers, are listed below:

Section	Description	Location
40 CFR, Part 262 3745-52-10(A)	Standards for generators of hazardous waste - Manifest requirements - Pre-Transport Requirements - Recordkeeping and reporting	pp. 33142 thru 33147 pp. 97 thru 121(B)
40 CFR, Part 265 3745-55...58	INTERIM STATUS STANDARDS for owners and operators of hazardous waste treatment, storage and disposal facilities	pp. 33232 thru 33258 pp. 228 thru 450
Subpart B 55-10...17	General Facility Standards	pp. 33233 thru 33236 pp. 232 thru 251

Note: Short-term storage for 90 days or less in tanks and containers also requires that regulations in Section 265, Subparts C & D, (OAC 3745-55-30... 3745-55-56) (Preparedness and Prevention plus Contingency and Emergency) be met.

(A) Chapter 3745 Ohio Administrative Code

(B) Pages in Ohio Hazardous Waste Regulations

State of Ohio Environmental Protection Agency
Northwest District Office
1035 Devlac Grove Drive, Bowling Green, Ohio 43402 • (419) 352-8461

James A. Rhodes, Governor
Wayne S. Nichols, Director

Section	Description	Location
Subpart C 55-30...37	Preparedness and Prevention	pp. 33236 thru 33237 pp. 252 thru 260
Subpart D 55-50...56	Contingency Plan and Emergency Procedures	pp. 33237 thru 33238 pp. 261 thru 274
Subpart E 55-70...77	Manifest System, Record-keeping and Reporting	pp. 33238 thru 33239 pp. 275 thru 291
Subpart F 55-90...94	Groundwater Monitoring	pp. 33239 thru 33242 pp. 292 thru 313
Subpart G 56-01...11	Closure and Post Closure	pp. 33242 thru 33243 pp. 314 thru 331
Subpart H 56-30...34	Financial Requirements	pp. 33243 thru 33244 pp. 332 thru 337
Subpart I 56-50...57	Use and Management of Containers	pp. 33244 pp. 338 thru 344
Subpart J 56-70...79	Tanks	pp. 33244 thru 33245 pp. 345 thru 354
Subpart K 57-01...11	Surface Impoundments	pp. 33245 thru 33246 pp. 355 thru 364
Subpart L 57-30...37	Waste Piles	pp. 33246 thru 33247 pp. 365 thru 371
Subpart M 57-50...62	Land Treatment	pp. 33247 thru 33249 pp. 372 thru 390
Subpart N 57-70...85	Landfills	pp. 33249 thru 33251 pp. 391-402
Subpart Q 58-50...56	Chemical, Physical and Biological Treatment	pp. 33251 thru 33252 pp. 418 thru 426
Subpart R 58-70	Underground Injection	pp. 33252 p. 427

Note: Numerous Amendments to these regulations have been promulgated. Please contact the Ohio EPA, Northwest District Office (419-352-8461) for further information, Attn: Tom Wray.

I recognize that this information is repetitious for many; however, it is included here for those who are not familiar with these regulations and the subsequent Amendments.

As mentioned earlier, the Ohio EPA is conducting inspections of those facilities engaged in the generation, transportation, storage, or disposal of hazardous waste. Your company has identified itself as a TSDF. Therefore, an inspection has been tentatively scheduled sometime during the next two months. You will be contacted by telephone approximately a week prior to the inspection to arrange a definite meeting date.

For your benefit, I suggest you ensure your facility is in compliance with the applicable portions of these regulations as non-compliance will result in a notice of violation and a possible fine.

Sincerely,

Thomas K. Wray
Hazardous Waste Scientist

TKW:sd

... in the unshaded areas only
...are spaced for elite type, i.e., 12 characters/inch).

81-HW-0459

Form Approved OMB No. 158-R0175

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

GENERAL

I. EPA I.D. NUMBER

F OHD005419171

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate area below. Also, if any of the preprinted data is absent (*the area to the left of the label space lists the information that should appear*), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (*except VI-B which must be completed regardless*). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

NODO

I. EPA I.D. NUMBER

II. FACILITY NAME

III. FACILITY MAILING ADDRESS

IV. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	YES	NO
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility *(either existing or proposed)* include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X			D. Is this a proposed facility *(other than those described in A or B above)* which will result in a discharge to waters of the U.S.? (FORM 2D)		X
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X

III. NAME OF FACILITY

CAMPBELL SOUP COMPANY

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)	B. PHONE (area code & no.)
SALSBURY, HERBERT MGR.SERV.&UTIL.	419 592 1010

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX			
ROUTE 110 EAST			
B. CITY OR TOWN	**C. STATE**	**D. ZIP CODE**	
NAPOLEON	OH	43545	

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER			
SAME			
B. COUNTY NAME			
HENRY			
C. CITY OR TOWN	**D. STATE**	**E. ZIP CODE**	**F. COUNTY CODE**
NAPOLEON	OH	43545	

EPA Form 3510-1 (8-80)

CONTINUE ON REVERSE

(5-digit, in order of priority)

A. FIRST	B. SECOND
2032 (specify) CANNING SPECIALTY FOODS	7349 (specify) METAL CANS - MANUFACTURING

C. THIRD	D. FOURTH
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME

CAMPBELL SOUP COMPANY

B. Is the name listed in Item VIII-A also the owner? ☒ YES ☐ NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC (other than federal or state); O = OTHER (specify)

P (specify)

D. PHONE (area code & no.)

A 419 592 1010

E. STREET OR P.O. BOX

ROUTE 110 EAST

F. CITY OR TOWN

NAPOLEON

G. STATE OH **H. ZIP CODE** 43545

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☒ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water): N OH0021AD

B. UIC (Underground Injection of Fluids): U

C. RCRA (Hazardous Wastes): X R

D. PSD (Air Emissions from Proposed Sources): D P

E. OTHER (specify): 9

E. OTHER (specify): 9

(specify) See Attachment 1

(specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

THE NAPOLEON CAMPBELL SOUP PLANT PRODUCES A COMPLETE LINE OF HEAT PROCESSED SOUPS ALONG WITH SEVERAL TYPES OF VEGETABLE JUICES. THE PLANT ALSO HAS ITS OWN CONTAINER MANUFACTURING DEPARTMENT WHERE IT PRODUCES THE METAL CANS FOR ALL THE DIFFERENT PRODUCTS.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
A. M. Williams Senior Vice President	A. M. Williams	11/15/82

COMMENTS FOR OFFICIAL USE ONLY

FORM #1

ATTACHMENT #1

AIR EMISSION PERMITS

1. 0335010105-P001
2. 0335010105-P003
3. 0335010105-P004
4. 0335010105-P005
5. 0335010105-B001
6. 0335010105-B002
7. 0335010105-B003
8. Permit to Install #03-488

EPA

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER: F | O | H | D | O | 5 | 4 | 9 | 7 | 1 | 1

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)

COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

YR.	MO.	DAY
5 7	0 8	0 1

[ ] 2. NEW FACILITY *(Complete item below.)*

FOR NEW FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR IS EXPECTED TO BEGIN

YR.	MO.	DAY

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES – CODES AND DESIGN CAPACITIES

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY – For each code entered in column A enter the capacity of the process.

1. AMOUNT – Enter the amount.
2. UNIT OF MEASURE – For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR OR GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U

UNIT OF MEASURE	UNIT OF MEASURE CODE
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H

UNIT OF MEASURE	UNIT OF MEASURE CODE
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

DUP F/A C 1

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	16,000	G		7				
2	T 0 4	7,680	U		8				
3	S 0 2	5,000	G		9				
4					10				

CONTINUE ON REVERSE

...ES (continued)

...OR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE ...S DESIGN CAPACITY.

T04 - USED AS A FUEL TO SUPPLEMENT THE #6 OIL USED IN THE COMPANY'S

#3 BOILER.

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER – Enter the four–digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four–digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non–listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:
   For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non–listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non–listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non–listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K054	900	P	T03 D80	
X-2	D001	400	P	T03 D80	
X-3	D001	100	P	T03 D80	
X-4	D002				included with above

CONTINUE ON PAGE 3

...on page 2
...copy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S00004

EPA I.D. NUMBER (enter from page 1): W O H D 0 0 5 4 1 9 1 7 1 — 1

FOR OFFICIAL USE ONLY: W DUP — 2 DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	F 0 1 7	107	T	S 0 1	
2	D 0 0 1	288	T	S 0 2 T 0 4	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

EPA Form 3510-3 (8-80)

CONTINUE ON REVERSE

THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. (enter from page 1)

F	0	H	D	0	0	5	4	1	9	1	7	1		6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).*

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground--level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).*

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)
41 23 55	84 06 40

VIII. FACILITY OWNER

[X] A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. (area code & no.)

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
	G		

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
A. M. Williams	A. M. Williams	11/18/80

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
F. DuVernois		11/18/80

STATE IDENTIFICATION NUMBER

81-HW-

EPA IDENTIFICATION NUMBER

TREATMENT, STORAGE, AND DISPOSAL FACILITIES
Form A.- General Facility Standards

I. General Information:

(A) Facility Name: _____

(B) Street: _____

(C) City: _____ (D) State: _____ (E) Zip Code: _____

(F) Phone: _____ (G) County: _____

(H) Operator: _____

(I) Street: _____

(J) City: _____ (K) State: _____ (L) Zip Code _____

(M) Phone: _____ (N) County: _____

(O) Owner: _____

(P) Street: _____

(Q) City: _____ (R) State: _____ (S) Zip Code: _____

(T) Phone: _____ (U) County: _____

(V) Date of Inspection: _____ (W) Time of Inspection (From)_____ (To) _____

(X) Weather Conditions: _____

_____

(Y) Person(s) Interviewed | Title | Telephone

_____ | _____ | _____

_____ | _____ | _____

_____ | _____ | _____

(Z) Inspection Participants | Agency/Title | Telephone

_____ | _____ | _____

_____ | _____ | _____

_____ | _____ | _____

(AA) Preparer Information

Name | Agency/Title | Telephone

_____ | _____ | _____

II. SITE ACTIVITY:

Complete sections I through VII for all treatment, storage, and/or disposal facilities. Complete the forms (in parenthesis) in section VIII corresponding to the site activities identified below:

___A. Storage and/or Treatment
   1. Containers (I)
   2. Tanks (J)
   3. Surface Impoundments (K)
   4. Waste Piles (L)

___B. Land Treatment (M)

___C. Landfills (N)

___D. Incineration and/or Thermal Treatment (O and P)

___E. Chemical, Physical, and Biological Treatment (Q)

Note: If facility is also a generator or transporter of hazardous waste complete sections IX and X of this form as appropriate.

III. GENERAL FACILITY STANDARDS:
(Part 265 Subpart B)

	Yes	No	NI*	Remark
(A) Has the Regional Administrator been notified regarding:				
1. Receipt of hazardous waste from a foreign source?	___	___	___	_____
2. Facility expansion?	___	___	___	_____
(B) General Waste Analysis:				
1. Has the owner or operator obtained a detailed chemical and physical analysis of the waste?	___	___	___	_____
2. Does the owner or operator have a detailed waste analysis plan on file at the facility?	___	___	___	_____
3. Does the waste analysis plan specify procedures for inspection and analysis of each movement of hazardous waste from off-site?	___	___	___	_____
(C) Security - Do security measures include: (if applicable)				
1. 24-Hour surveillance?	___	___	___	_____
2. Artificial or natural barrier around facility?	___	___	___	_____
3. Controlled entry?	___	___	___	_____
4. Danger sign(s) at entrance?	___	___	___	_____
(D) Do Owner or Operator Inspections Include:				
1. Records of malfunctions?	___	___	___	_____
2. Records of operator error?	___	___	___	_____
3. Records of discharges?	___	___	___	_____

*Not Inspected

	Yes	No	NI*	Remarks
4. Inspection schedule?				
5. Safety, emergency equipment?				
6. Security devices?				
7. Operating and structural devices?				
8. Inspection log?				
(E) Do personnel training records include: (Effective 5/19/81)				
1. Job titles?				
2. Job descriptions?				
3. Description of training?				
4. Records of training?				
5. Have facility personnel received required training by 5-19-81?				
6. Do new personnel receive required training within six months?				
(F) If required are the following special requirements for ignitable, reactive, or incompatible wastes addressed?				
1. Special handling?				
2. No smoking signs?				
3. Separation and protection from ignition sources?				

*Not Inspected

IV. PREPAREDNESS AND PREVENTION:
(Part 265 Subpart C)

	Yes	No	NI*	Remarks
(A) Maintenance and Operation of Facility: Is there any evidence of fire, explosion, or release of hazardous waste or hazardous waste constituent?	___	___	___	_____
(B) If required, does the facility have the following equipment:				
1. Internal communications or alarm systems?	___	___	___	_____
2. Telephone or 2-way radios at the scene of operations?	___	___	___	_____
3. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment?	___	___	___	_____

Indicate the volume of water and/or foam available for fire control:

_____

_____

(C) Testing and Maintenance of Emergency Equipment:				
1. Has the owner or operator established testing and maintenance procedures for emergency equipment?	___	___	___	_____
2. Is emergency equipment maintained in operable conditions?	___	___	___	_____
(D) Has owner or operator provided immediate access to internal alarms? (if needed)	___	___	___	_____

*Not Inspected

(E) Is there adequate aisle space for unobstructed movement? ___ ___ ___ _____

V. CONTINGENCY PLAN AND EMERGENCY PROCEDURES: (Part 265 Subpart D)

(A) Does the Contingency Plan contain the following information:	Yes	No	NI*	Remarks
1. The actions facility personnel must take to comply with §265.51 and 265.56 in response to fires, explosions, or any unplanned release of hazardous waste? (If the owner has a Spill Prevention, Control, and Countermeasures (SPCC) Plan, he needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part (as applicable.)	___	___	___	_____
2. Arrangements agreed by local police departments, fire departments hospitals, contractors, and State and local emergency response teams to coordinate emergency services pursuant to §265.37?	___	___	___	_____
3. Names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinators?	___	___	___	_____
4. A list of all emergency equipment at the facility which includes the location and physical description of each item on the list and a brief outline of its capabilities?	___	___	___	_____
5. An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary? (This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes?)	___	___	___	_____

*Not Inspected

V. CONTINGENCY PLAN AND EMERGENCY PROCEDURES - Continued

	Yes	No	NI*	Remarks
(B) Are copies of the Contingency Plan available at site and local emergency organizations?	___	___	___	_____
(C) Emergency Coordinator				
1. Is the facility Emergency Coordinator identified?	___	___	___	_____
2. Is coordinator familiar with all aspects of site operation and emergency procedures?	___	___	___	_____
3. Does the Emergency Coordinator have the authority to carry out the Contingency Plan?	___	___	___	_____
(D) Emergency Procedures				
If an emergency situation has occurred at this facility, has the Emergency Coordinator followed the emergency procedures listed in 265.56?	___	___	___	_____

VI. MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING
(Part 265 Subpart E)

	Yes	No	NI*	Remarks
(A) Use of Manifest System				
1. Does the facility follow the procedures listed in §265.71 for processing each manifest?	___	___	___	_____
2. Are records of past shipments retained for 3 years?	___	___	___	_____
(B) Does the owner or operator meet requirements regarding manifest discrepancies?	___	___	___	_____

*Not Inspected

(C) Operating Record

1. Does the owner or operator maintain an operating record as required in 265.73? ___ ___ ___ _____

2. Does the operating record contain the following information:

**b. The method(s) and date(s) of each waste's treatment, storage, or disposal as required in Appendix I? ___ ___ ___ _____

c. The location and quantity of each hazardous waste within the facility? ___ ___ ___ _____

***d. A map or diagram of each cell or disposal area showing the location and quantity of each hazardous waste? (This information should be cross-referenced to specific manifest number, if waste was accompanied by a manifest.) ___ ___ ___ _____

e. Records and results of all waste analyses, trial tests, monitoring data, and operator inspections? ___ ___ ___ _____

f. Reports detailing all incidents that required implementation of the Contingency Plan? ___ ___ ___ _____

g. All closure and post closure costs as applicable? (Effective 5-19-81) ___ ___ ___ _____

** See page 33252 of the May 19, 1980, Federal Register.

*** Only applies to disposal facilities

*Not Inspected

VII. CLOSURE AND POST CLOSURE
(Part 265 Subpart G)

	Yes	No	NI*	Remarks
(A) Closure and Post Closure				
1. Is the facility closure plan available for inspection by May 19, 1981?	___	___	___	_____
2. Has this plan been submitted to the Regional Administrator	___	___	___	_____
3. Has closure begun?	___	___	___	_____
4. Is closure estimate available by May 19, 1981?	___	___	___	_____
(B) Post closure care and use of property				
Has the owner or operator supplied a post closure monitoring plan? (effective by May 19, 1981)	___	___	___	_____

VIII. FACILITY STANDARDS
(Part 265, Subparts I thru R)

I
USE AND MANAGEMENT OF CONTAINERS

Facility Name: _____ Date of Inspection: _____

	Yes	No	NI*	Remarks
1. Are containers in good condition?	___	___	___	_____
2. Are containers compatible with waste in them?	___	___	___	_____
3. Are containers stored closed?	___	___	___	_____
4. Are containers managed to prevent leaks?	___	___	___	_____
5. Are containers inspected weekly for leaks and defects?	___	___	___	_____
6. Are ignitable & reactive wastes stored at least 15 meters (50 feet) from the facility property line? (Indicate if waste is ignitable or reactive.)	___	___	___	_____

	Yes	No	NI	Remarks
7. Are incompatible wastes stored in separate containers? (If not, the provisions of 40 CFR 265.17(b) apply.)				
8. Are containers of incompatible waste separated or protected from each other by physical barriers or sufficient distance?				

J
TANKS

Facility Name: _____ Date of Inspection: _____

	Yes	No	NI	Remarks
1. Are tanks used to store only those wastes which will not cause corrosion, leakage or premature failure of the tank?				
2. Do uncovered tanks have at least 60 cm (2 feet) of freeboard, or dikes or other containment structures?				
3. Do continuous feed systems have a waste-feed cutoff?				
4. Are waste analyses done before the tanks are used to store a substantially different waste than before?				
5. Are required daily and weekly inspections done?				
6. Are reactive & ignitable wastes in tanks protected or rendered non-reactive or non-ignitable? Indicate if waste is ignitable or reactive. (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)				
7. Are incompatible wastes stored in separate tanks? (If not, the provisions of 40 CFR 265.17(b) apply.)				

*Not Inspected

	Yes	No	NI*	Remarks

8. Has the owner or operator observed the National Fire Protection Association's buffer zone requirements for tanks containing ignitable or reactive wastes?

   Tank capacity: _____ gallons

   Tank diameter: _____ feet

   Distance of tank from property line _____ feet

   (See table 2 - 1 through 2 - 6 of NFPA's "Flammable and Combustible Liquids Code - 1977" to determine compliance.)

K

SURFACE IMPOUNDMENTS

Facility Name: _____ Date of Inspection: _____

	Yes	No	NI*	Remarks
1. Do surface impoundments have at least 60 cm (2 feet) of freeboard?				
2. Do earthen dikes have protective covers?				
3. Are waste analyses done when the impoundment is used to store a substantially different waste than before?				
4. Is the freeboard level inspected at least daily?				
5. Are the dikes inspected weekly for evidence of leaks or deterioration?				
6. Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a surface impoundment? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)				
7. Are incompatible wastes stored in different impoundments? (If not, the provisions of 40 CFR 265.17(b) apply.)				

WASTE PILES

Facility Name: _____ Date of Inspection: _____

	Yes	No	NI*	Remarks
1. Are waste piles covered or protected from dispersal by wind?				
2. Is each in-coming movement of waste analyzed before being added to the waste pile?				
3. Are leachate, run-off, and run-on controlled as per the requirements of 265.258? (The effective date of this provision is Nov. 19, 1981.)				
4. Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a pile? Indicate if waste is ignitable or reactive. (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)				
5. Are piles of reactive or ignitable waste protected from materials or conditions that might cause them to ignite or react?				
6. Are incompatible wastes stored in different piles? (If not, the provisions of 40 CFR 265.17(b) apply.)				
7. Are piles of imcompatible waste protected by barriers or distance from other waste?				

*Not Inspected

M

LAND TREATMENT

Facility Name: _____ Date of Inspection: _____

1.	Is treated hazardous waste capable of biological or chemical degradation?	___	___	___
2.	Are run-off and run-on diverted from the facility or collected? (Effective date: November 19, 1981)?	___	___	___
3.	Is waste analyzed according to 265.273?	___	___	___
4.	If food chain crops are grown at the facility, has the owner or operator addressed the requirements of 265.276?	___	___	___
5.	Is an unsaturated zone monitoring plan designed and implemented to detect the vertical migration of hazardous waste and provide information on the background concentrations of the hazardous waste available?	___	___	___
6.	Does the unsaturated zone monitoring plan address the minimum information specified in 265.278?	___	___	___
7.	Are records kept regarding application dates and rates, quantities, and locations, of all hazardous waste placed in the facility?	___	___	___
8.	Are the special requirements fulfilled regarding land treatment of ignitable or reactive wastes? (Indicate if waste is ignitable or reactive.)	___	___	___
9.	Are incompatible wastes land treated? (If yes, 265.17(b) applies)	___	___	___

N
LANDFILLS

Facility Name: _____ Date of Inspection: _____

	Yes	No	NI*	Remarks
(A) General Operating Requirements Does the facility provide the following:				
**1. Diversion of run-on away from active portions of the fill?				
**2. Collection of run-off from active portions of the fill?				
**3. Is collected run off treated?				
4. Control of wind dispersal of hazardous waste?				
(**Effective 11-19-81)				
(B) Surveying and Recordkeeping Does the Operating Record Include:				
1. A map showing the exact location and dimensions of each cell?				
2. The contents of each cell and the location of each hazardous waste type withing each cell?				
(C) Closure and Post-Closure				
1. Is the Closure Plan available for inspection by 5-19-81?				
2. Has this plan been submitted to the Regional Administrator?				
3. Has closure begun?				
4. Is closure cost estimate available by 5-19-81?				
(D) Special requirements for ignitable or reactive waste				
Are ignitable or reactive waste treated so the resulting mixture is no longer ignitable or reactive?				

	Yes	No	NI*	Remarks
(If waste is rendered non-reactive or non-ignitable see treatment requirements)				
If not, the provisions of 40 CFR 265.17(b) apply.	___	___	___	_____
(E) Special Requirements for Incompatible Wastes.				
Does the owner or operator dispose of incompatible wastes in separate cells?	___	___	___	_____
If not, the provisions of 40 CFR 265.17(b) apply.	___	___	___	_____
(F) Special requirements for liquid waste (effective 11-19-81)				
1. Are bulk or non-containerized liquids placed in the landfill?	___	___	___	_____
2. Does the landfill have a chemically and physically resistant liner system?	___	___	___	_____
3. Does the landfill have a functional leachate collection system?	___	___	___	_____
4. Are free liquids stabilized prior to or immediately after placement in the landfill?	___	___	___	_____
(G) Special requirements for Containers (effective 11-19-81)				
Are empty containers crushed flat, shredded, or similarly reduced in volume before being buried beneath the surface of the landfill?	___	___	___	_____

*Not Inspected

O and P
INCINERATION and THERMAL TREATMENT

(A) Facility Name: _____

(B) Date of Inspection: _____

I. Determination of Steady State

A. Type of unit (i.e., type of incinerator or thermal treatment): _____

_____

B. Components and steady state condition:

	Component	**** Was this component at SS prior to adding waste? Yes	No	NI*	Remarks
1.	_____	___	___	___	_____
2.	_____	___	___	___	_____
3.	_____	___	___	___	_____
4.	_____	___	___	___	_____
5.	_____	___	___	___	_____

II. Waste Analysis

A. Minimum requirements, for wastes not previously burned/treated.

	1. Required analyses; has an analysis been performed for the following?	Yes	No	NI*	Remarks
a.	Heating value	___	___	___	_____
b.	Halogen content	___	___	___	_____
c.	Sulfur content	___	___	___	_____

*Not Inspected

	Yes	No	NI*	Remarks
2. Has documented or written data been substituted for analysis of either:				
a. Lead?	___	___	___	_____
b. Mercury?	___	___	___	_____

B. List other parameters for which the waste is tested to enable owner or operator to establis steady state or determine the types of pollutants which may be emitted. (Note in Remarks any which you feel should be tested.)

		Remarks
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

III. Monitoring and Inspections

	Yes	No	NI*	Remarks
A. Are combustion/emission control instruments monitored at least every 15 minutes?	___	___	___	_____
B. Is steady state maintained or corrections attempted?	___	___	___	_____
C. Is stack plume observed at least hourly for normal color and opacity?	___	___	___	_____
D. Did any stack observations made by owner or operator show a plume different than normal?**	___	___	___	_____
E. If yes to D above, were corrections made to return emissions to normal appearance?**	___	___	___	_____
F. Are the complete unit and associated equipment inspected daily for leaks, spills, and fugitive emissions?	___	___	___	_____
G. Are emergency shutdown controls and system alarms checked daily for proper operation?	___	___	___	_____

*Not Inspected
**Specify in Remarks for what period of time this was checked.

IV. Open Burning

A. Only complete this part if the facility open burns hazardous waste.

	Yes	No	NI*	Remarks
1. Does this facility burn only waste explosives? (A No answer means other hazardous waste is open-burned.)	___	___	___	_____
2. If this facility open-burns waste explosives, does it burn the waste at a distance greater than or equal to the minimum specified distance (below)	___	___	___	_____

Pounds of waste explosives or propellants	Minimum distance from open burning or detonation to the property of others	
0 to 100.....	204 m	670 ft
101 to 1,000.....	380 m	1,250 ft
1,001 to 10,000.....	530 m	1,730 ft
10,0001 to 30,000.....	690 m	2,260 ft

Q

CHEMICAL, PHYSICAL and BIOLOGICAL TREATMENT

Facility Name: _____

Date of Inspection: _____

	Yes	No	NI*	Remarks
1. Is equipment used to treat only those wastes which will not cause leakage, corrosion, or premature failure?	___	___	___	_____
2. Is a continuously fed system equipped with a means of hazardous waste inflow stoppage or control (e.g., cut-off system?)	___	___	___	_____

*Not Inspected

	Yes	No	NI*	Remarks
3. Has the owner or operator addressed the waste analysis requirements of 265.402?	___	___	___	_____
4. Are inspection procedures followed according to 265.403?	___	___	___	_____
5. Are the special requirements fulfilled for ignitable or reactive wastes?	___	___	___	_____
6. Are incompatible wastes treated? (If yes, 265.17(b) applies.)	___	___	___	_____

Note: EPA has temporarily suspended the applicability of the requirements of the hazardous waste regulations in 40 CFR Parts 122, 264 and 265 to owners and operators of (1) wastewater treatment tanks that receive, store, and treat wastewaters that are hazardous waste or that generate, store or treat a wastewater treatment sludge which is a hazardous waste where such wastewaters are subject to regulation under Sections 402 or 307(b) of the Clean Water Act (33 U.S.C. 1251 et seq.) and (2) neutralization tanks, transport vehicles, vessels, or containers which neutralize wastes which are hazardous only because they exhibit the corrosivity characteristic under 40 CFR §261.22 or are listed as hazardous wastes in Subpart D of 40 CFR Part 261 only for this reason.

IX

Complete this section if the owner or operator of a TSD facility also generates hazardous waste that is subsequently shipped off-site for treatment, storage, or disposal.

1. MANIFEST REQUIREMENTS

	Yes	No	NI*	Remarks
(A) Does the operator have copies of the manifest available for review?	___	___	___	_____
(B) Do the manifest forms reviewed contain the following information: (If possible, make copies of, or record information from, manifest(s) that do not contain the critical elements)				
1. Manifest document number?	___	___	___	_____
2. Name, mailing address, telephone number, and EPA ID Number of Generator	___	___	___	_____

		Yes	No	NI*	Remarks
3.	Name and EPA ID Number of Transporter(s)?	___	___	___	_____
4.	Name, address, and EPA ID Number of Designated permitted facility and alternate facility?	___	___	___	_____
5.	The description of the waste(s) (DOT shipping name, DOT hazard class, DOT identification number)?	___	___	___	_____
6.	The total quantity of waste(s) and the type and number of containers loaded?	___	___	___	_____
7.	Required certification?	___	___	___	_____
8.	Required signatures?	___	___	___	_____
(C)	Does the owner or operator submit exception reports when needed?	___	___	___	_____

2. PRE-TRANSPORT REQUIREMENTS

(A)	Is waste packaged in accordance with DOT Regulations? (Required prior to movement of hazardous waste off-site)	___	___	___	_____
(B)	Are waste packages marked and labeled in accordance with DOT regulations concerning hazardous waste materials? (Required to movement of hazardous waste off-site)	___	___	___	_____
(C)	If required, are placards available to transporters of hazardous waste?	___	___	___	_____

Omit Section 3 if the facility has interim status and its Part A permit application describes storage

3. On Site Accumulation

	Yes	No	NI*	Remarks
1. Are containers marked with start of accumulation date?	___	___	___	_____
2. Are the containers of hazardous waste removed from installation before they can accumulate for more than 90 days?	___	___	___	_____
3. Are wastes stored in containers managed in accordance with 40 CFR Part 265.174 and 265.176 (weekly inspections of containers, containers holding ignitable or reactive wastes located at least 15 meters (50 Feet) from facility's property line?	___	___	___	_____
4. If wastes are stored in tanks, are the tanks managed according to the following requirements?				
a. Are tanks used to store only those wastes which will not cause corrosion leakage or premature failure of the tank?	___	___	___	_____
b. Do uncovered tanks have at least 60 cm (2 feet) of freeboard, dikes, or other containment structures?	___	___	___	_____
c. Do continuous feed systems have a waste-feed cutoff?	___	___	___	_____
d. Are required daily and weekly inspections done?	___	___	___	_____
e. Are reactive & ignitable wastes in tanks protected or rendered non-reactive or non-ignitable? (If waste is rendered non-reactive or non-ignitable, see treatment requirements?	___	___	___	_____
f. Are incompatible wastes stored in separate tanks? (If not, the provisions of 40 CFR §265.17(b) apply)	___	___	___	_____

*Not Inspected

VI. RECORDKEEPING and REPORTING
(Part 262, Subpart D)

	Yes	No	NI*	Remarks
(A) Are Manifests, Annual Reports, Exception Reports, and all test results and analyses retained for at least three years?	___	___	___	_____
(B) Has the generator submitted Annual Reports and Exception Reports as required?	___	___	___	_____

VII. INTERNATIONAL SHIPMENTS
(Part 262, Subpart E)

Has the installation imported or exported Hazardous Waste?	___	___	___	_____

(If answered Yes, complete the following as applicable.)

1. Exporting Hazardous waste, has a generator:				
a. Notified the Administrator in writing?	___	___	___	_____
b. Obtained the signature of the foreign consignee confirming delivery of the waste(s) in the foreign country?	___	___	___	_____
c. Met the Manifest requirements?	___	___	___	_____
2. Importing Hazardous Waste, has the generator:				
Met the manifest requirements?	___	___	___	_____

*Not Inspected

X

TRANSPORTER REQUIREMENTS
40 CFR Part 263

Complete this Section if the owner or operator transports hazardous waste.

I. MANIFEST SYSTEM AND RECORDKEEPING
(Subpart B)

	Yes	No	NI*	Remarks
Are copies of the completed manifests or shipping paper(s) available for review and retained for three years?	___	___	___	_____

II. INTERNATIOINAL SHIPMENTS

	Yes	No	NI*	Remarks
A. Does the transporter record on the manifest the date the waste left the U.S.?	___	___	___	_____
B. Are signed completed manifest(s) on file?	___	___	___	_____

V. MISCELLANEOUS

	Yes	No	NI*	Remarks
A. Does transporter transport hazardous waste into the U.S. from abroad?	___	___	___	_____
B. Does the transporter mix hazardous waste of different DOT shipping descriptions by placing them into a single container?	___	___	___	_____

NOTE: If (A) or (B) were answered "Yes" then the Transporter is also a Generator and must comply with the Generator regulations.

*Not Inspected

REMARKS

Use this section to briefly describe site activities observed at the time of the inspection. Note any possible violations of Interim Status Standards.

RE: Henry Co.
ISS Inspections

July 13, 1981

RCRA Activities
P.O. Box 7861
Chicago, Illinois 60680

Gentlemen:

RE: EPA ID #OHD005419171

On November 19, 1980, Campbell Soup Company, located at Napoleon, Ohio, forwarded to your office a completed Hazardous Waste Permit Application. This was a precautionary or protective notification because we were uncertain whether or not the two mixtures we listed as F017 and D001 were subject to all regulations issued pursuant to the federal Resource Conservation and Recovery Act (RCRA). We have now determined that under the present regulations, including RCRA regulations Section 261.6, we are neither subject to the regulations affecting generators of hazardous waste nor to those affecting treatment, storage, or disposal facilities. We hereby request withdrawal of our RCRA Part A application filed November 19, 1980.

More specifically, as discussed in our April 7, 1981, letter to the Ohio EPA, copy attached, we have now determined that the mixture we listed as F017 in fact is neither F017 nor a listed or unlisted hazardous waste. (We also note that F017 has been at least temporarily delisted.) Moreover, the mixture we listed as D001 on our application has a heat value of over 132,000 BTU's per gallon, has been beneficially used by us on-site as a fuel supplement in our boilers for the last three years, and continues to be so beneficially used. Accordingly, pursuant to RCRA regulations, Section 261.6(a), this mixture is not subject to RCRA regulations, Parts 262-5, Parts 122-124, or RCRA, Section 3010.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, Manager
Services & Utilities

cp
attach.
cc: Ms. Peggy Vince, Permit Coordinator
Ohio EPA
Office of Hazardous Materials Management
361 E. Broad Street
Columbus, OH 43215

RECEIVED
JUL 22 1981
OHIO EPA
N.W.D.O.

RE: Hazardous Waste Co,
ISS Inspections

April 7, 1981

Hazardous Waste Task Force
P. O. Box 1049
361 E. Broad Street
Columbus, OH 43216

Gentlemen:

Pursuant to your request, enclosed please find a copy of the U.S. Environmental Protection Agency Hazardous Waste Application, Part A, filed by this plant November 19, 1980, as part of its obtaining and maintaining "interim status" as a treatment, storage, or disposal facility. As you will note, that Application referred to F017 as a hazardous waste in our plant.

However, we have now determined that the mixture we referred to as F017 on our Application is neither a listed nor unlisted hazardous waste, as defined by the Environmental Protection Agency's regulations issued pursuant to the federal Resource Conservation and Recovery Act, for the following reasons:

a. The Environmental Protection Agency has at least temporarily suspended F017 as a listed hazardous waste (January 16, 1981, Federal Register).
b. Although we referred to our mixture as F017 on our Application in an excess of caution, we have now determined, based on further knowledge of our own mixture, that our mixture in fact did and does not come within the definition of F017.
c. The mixture we referred to as F017 is an aqueous solution, with no or almost no alcohol content, and does not meet the characteristics of hazardous waste as defined in Part 261, Subpart C, of the Environmental Protection Agency's regulations issued pursuant to the federal Resource Conservation and Recovery Act.

If there are any questions concerning this application, please call me at (419) 592-1010 ext. 343.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, Manager
Services & Utilities

RECEIVED
JUL 22 1981
OHIO EPA
N.W.D.O.

cp
enc.
cc: U.S. EPA, Region V, RCRA Activities

Campbell Soup **1995-2001**

12-773 SR 110, Napoleon OHD 005 419 171

Henry County MAIN PLANT DHWM

Smead®

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

OhioEPA
State of Ohio Environmental Protection Agency

RECEIVED
NOV 27 2001
OHIO E.P.A.
N.W.D.O.

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

November 20, 2001

Re: Campbell Soup Company
Receipt of New Closure Plan
EPA ID No.: OHD 005 419 171

Campbell Soup Company
Attn: Mr. Michael Maringer
1273 State Route 110
Napoleon, Ohio 43545

Dear Mr. Maringer:

This letter is an acknowledgment of Ohio EPA's receipt of the new closure plan for the hazardous waste surface impoundment from the Campbell Soup Company, located at 1273 State Route 110 in Napoleon, Ohio. The new plan was received by the Ohio EPA's Central Office on October 31, 2001. A public notice concerning receipt of the plan and its availability for public review will appear on November 21, 2001 in the Northeast Signal newspaper. The Director of Ohio EPA will act upon the closure plan after the close of the public comment period on December 20, 2001.

A copy of the new closure plan is available for public review at the Napoleon Public Library, 310 West Clinton Street, Napoleon, Ohio 43545, and at the Ohio EPA, Northwest District Office, 347 Dunbridge Road, Bowling Green, Ohio 43402, tel:(419) 352-8461.

Please contact Michael Terpinski of the Northwest District Office if you have any questions on this matter.

Sincerely,

M. Lonnie Terry

M. Lonnie Terry
Information Technologies and Technical Support Section
Division of Hazardous Waste Management

cc: Michael Terpinski, NWDO
Closure Unit, CO
file

PUBLIC NOTICE

Henry County

OHIO EPA RECEIVES NEW HAZARDOUS WASTE CLOSURE PLAN

On October 31, 2001, Ohio EPA received a new hazardous waste closure plan from Campbell Soup Company for its surface impoundment at 1273 State Route 110, Napoleon, Ohio 43545. The EPA Identification Number for this facility is OHD005419171.

Why is Campbell Soup Company submitting this Closure Plan?

As the result of an Order issued by Ohio EPA, Campbell Soup Company submitted this closure plan to fulfill the requirements contained in the Order. This new closure plan identifies material detected at the site resulting from soil borings, outlines the means in which hazardous waste will be removed from the facility's holding pit and the activities associated with soil clean-up.

When and how do I submit written comments about this Closure Plan?

You can submit written comments anytime between November 21 and December 20, 2001. Send your comments to Ohio EPA, Division of Hazardous Waste Management, Attn: Information Technologies and Technical Support Section, P.O. Box 1049, Columbus, Ohio 43216, telephone number (614) 644-2977, fax number (614) 728-1245, e-mail address: dhwmcomments@epa.state.oh.us

Where can I review the Closure Plan?

You can review the Closure Plan at the following locations:

Napoleon Public Library, 310 West Clinton Street, Napoleon, Ohio 43545, tel: (419) 592-2531,

Ohio EPA, Northwest District Office, 347 Dunbridge Road, Bowling Green, Ohio 43402, tel: (419) 352-8461,

Ohio EPA, Division of Hazardous Waste Management, 122 South Front Street, Columbus, Ohio 43215 (614) 644-2977.

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone#: 856-968-4423
Fax#: 856-968-2808/2809

RECEIVED
OCT 31 2001
OHIO E.P.A.
N.W.D.O.

October 29, 2001

Via Airbourne Express

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager
347 North Dunbridge Road
Bowling Green, OH 43402

and

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

Re: Amendments to Director's Final Findings and Orders of October 18, 2000
Campbell Soup Supply Company L.L.C.
Campbell Soup Company

Gentlemen:

Enclosed please find a report entitled "RCRA Site Closure Plan – Former Holding Pit Area" related to Campbell Soup Supply Company facility at Napoleon, Ohio.

The Closure Work Plan is submitted in compliance with the above Order for your review and approval.

Please give me a call at 856-968-4423 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

Osman. M. Aly, Ph.D.
Consultant

OMA/dp

cc: F. Greenfield
M. Maringer
R. Shober
C. del Sol

att.

Henry County
Campbell's Soup
General

GeoTrans, Inc.
A TETRA TECH COMPANY

FAX TRANSMISSION COVER SHEET

710 Avis Drive
Ann Arbor, MI 48108
(734) 213-2204
Fax: (734) 213-5008

To: James Moseley

Date: March 13, 2002

Company or Division: Ohio EPA

No. Of Pages: 2
(Including Cover Sheet)

Fax No.: (419) 352 – 8468

Phone No.:

From: Tesha Ylelding

Remarks:

Enclosed please find page 27 of the RCRA Site Closure Plan for the Campbell Soup site in Napoleon. We apologize for sending you a version without page 27.

Please call or e-mail either Craig Savage or myself with any other questions or concerns.

IF YOU DO NOT RECEIVE THE NUMBER OF PAGES LISTED ABOVE, PLEASE CALL.

This facsimile contains **Privileged and Confidential** information intended only for the use of the Addressee(s) named above. If you are not the intended recipient of this facsimile, or employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination or copying of this facsimile is strictly prohibited. If you received this facsimile in error, please notify us by telephone and return the original facsimile to us at the above address via the U.S. Postal service. Thank You.

For excavation, both the sidewalls and bottom areas would be included in the determination of the area size. The following equation is used to determine grid intervals for stationing over a medium sized site (11,000 to 130,000 square feet).

$$GI = (A/\pi)^{1/2} / 4$$

WHERE: A = area to be grid (square feet), including floor and sidewalls

GI = grid interval

π = 3.14159

The combined surface area of the excavation floor and the sidewalls is expected to be approximately 20,000 square feet, which results in a calculated grid interval of 20 feet.

14.2 Sampling of Grid

Sampling of grids may include all of the grid stations or a phased subset of the total stations. The subset of grid stations is created by assigning coordinates to all the nodes and randomly selecting nodes using a random number generator or a random number table.

Based on the grid interval calculated for this excavation, there will be approximately 35 grid nodes across the excavation floor, and 21 nodes across the excavation walls, for 56 total possible sample locations. Based on the 25% guideline, a minimum of 14 samples will need to be collected before statistical conditions can be met. This number of samples is suitable, considering that 51 borings were advanced previously to delineate the vertical and horizontal extent of contamination.

A minimum of 20 sidewall and floor samples is proposed to verify that the cleanup standards have been met in the excavation. The sample locations will be selected from randomized locations within a grid pattern distributed across the excavation floor, and at nodal distances along the excavation sidewalls.

OhioEPA
State of Ohio Environmental Protection Agency

RECEIVED
JUL 26 2001
OHIO E.P.A.
N.W.D.O.

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

July 25, 2001

Dr. Osman M. Aly
Environmental Consultant
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

RE: Campbell Soup Company and Campbell Soup Supply Company L.L.C. - Amendment to Director's Final Findings and Orders of October 18, 2000

Dear Dr. Aly:

I am in receipt of your July 19, 2001 letter and attachments. The documents attached to your July 19, 2001 letter consisted of a redlined version and a signed version of the amended Director's Final Findings and Orders. As we discussed in our telephone conversation, I have reviewed the attachments and have concluded that it is necessary to provide to you for signature another set of amended Director's Final Findings and Orders. The amended Director's Final Findings and Orders are attached for your review. Please note that all of your redline comments have been incorporated into the attached orders.

Please have a responsible corporate officer of the Campbell Soup Company and Campbell Soup Supply Company L.L.C. sign and date the attached orders and return the originally signed and dated orders to me. I apologize for any inconvenience encountered in obtaining signatures on the orders again. However, as we previously discussed it is necessary to do so.

If you have any questions, please do not hesitate to contact me at (614) 644-2840. Thank you in advance for your cooperation in this matter.

Sincerely,

Todd A. Anderson
Staff Attorney

Attachment

cc w/att: Michael Terpinski, DHWM, NWDO
Jim Kavalec, DHWM, CO

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Campbell Soup Company
World Headquarters
1 Campbell Place
Camden, NJ 08103-1799

and

Campbell Soup Supply Company L.L.C.
12 773 State Route 110
Napoleon, OH 43545

Respondents

Director's Final Findings and Orders

AMENDMENT TO DIRECTOR'S FINAL FINDINGS AND ORDERS OF OCTOBER 18, 2000

PREAMBLE

It is hereby agreed by and among the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders (Orders) are issued to the Campbell Soup Company and Campbell Soup Supply Company L.L.C. (Respondents) pursuant to the authority vested in the director of the Ohio Environmental Protection Agency (Ohio EPA) under § 3734.13 and § 3745.01 of the Ohio Revised Code (ORC).

II. PARTIES BOUND

These Orders shall apply to and be binding upon the Respondents, their assigns and successors in interest. No changes in ownership relating to the Facility will in any way alter the Respondents' responsibilities under these Orders. The Respondents' obligations under these Orders may be altered only by the written approval of the director of Ohio EPA.

III. DEFINITIONS

1. Unless otherwise stated, all terms in these Orders shall have the same meaning as used in the Director's Final Findings and Orders of October 18, 2000, and as used in Chapter 3734. of the ORC and the regulations promulgated thereunder.

2. The effective date of these Orders is the date these Orders are entered into the Ohio EPA director's journal.

IV. FINDINGS OF FACT

The Director of Ohio EPA has determined the following findings of fact:

1. On October 18, 2000, the director issued Director's Final Findings and Orders to Respondents. All findings of fact made in the October 18, 2000, Director's Final Findings and Orders are hereby incorporated by reference.

2. The October 18, 2000 Director's Final Findings and Orders required Respondents to, *inter alia*, submit to Ohio EPA for review and approval a closure plan to close the Pits area at the Facility where hazardous waste was disposed of without a permit.

3. On November 2, 2000, Respondents submitted to Ohio EPA a closure plan as required by Order No. 1 of the October 18, 2000, Director's Final Findings and Orders.

4. By letter dated March 30, 2001, Respondents submitted to Ohio EPA a request to withdraw the closure plan due to technical deficiencies contained within the closure plan. Respondents also requested an extension of time in which to submit a revised closure plan correcting technical deficiencies. In support of the extension request, Respondents have committed to working closely with Ohio EPA to correct all of the technical deficiencies prior to resubmitting to Ohio EPA the closure plan.

V. ORDERS

The Respondents shall achieve compliance with Chapter 3734. of the ORC and the regulations promulgated thereunder according to the following compliance schedule:

1. The October 18, 2000 Director's Final Findings and Orders are amended as follows:

   a. Order No. 1 is superseded and replaced with the following new Order No. 1:

      Respondents shall close the Pits area at the Facility where hazardous waste was disposed of without a permit, in accordance with OAC rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20. Within 60 days after the effective date of these Orders, Respondents shall submit to Ohio EPA a closure plan, prepared in accordance with OAC rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20.

   b. Order No. 5 is superseded and replaced with the following new Order No. 5:

      Within 60 days after the effective date of these Orders, Respondents shall submit to Ohio EPA a closure cost estimate and documentation demonstrating that Respondents have established financial assurance and liability coverage for closure in accordance with OAC rules 3745-55-42/3745-66-42 through 3745-55-47/3745-66-47.

2. Except as noted in these Orders, all terms and conditions of the October 18, 2000 Director's Final Findings and Orders remain valid and in effect.

VI. TERMINATION

The Respondents' obligations under these Orders shall terminate when the Respondents demonstrate in writing and certify to the satisfaction of Ohio EPA that all obligations under these Orders have been performed and Ohio EPA's Division of Hazardous Waste Management acknowledges, in writing, Ohio EPA's acceptance of this demonstration and certification.

This certification shall be submitted by the Respondents and shall be signed by a responsible official of the Respondents. The certification shall make the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

For purposes of these Orders, a responsible official is a corporate officer who is in charge of a principal business function of the Respondents.

VII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a signatory to these Orders, for any liability arising out of or relating to the operations of the Respondents' Facility.

VIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. Nothing in these Orders shall be construed as waiving or compromising in any way the applicability and enforcement of any other statutes or regulations applicable to the Respondents' operation of the Facility. Ohio EPA reserves all rights and privileges except as specified herein. Respondents reserve all rights and defenses which may be available at law or in equity and under any statute, regulation or common law applicable to Respondents' operation of the Facility, except as specified herein.

IX. NOTICE

All documents demonstrating compliance with these Orders, and other documents required under these Orders to be submitted to Ohio EPA, shall be addressed to:

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager
347 North Dunbridge Road
Bowling Green, OH 43402

and Ohio EPA Central Office at the following address:

For mailings, use the post office box number:

Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
P.O. Box 1049
Columbus, Ohio 43216-1049

For deliveries to the building and courier services:

Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

All documents to be submitted to Respondents under this Order shall be addressed to:

Dr. Osman Aly
Environmental Consultant
Campbell Soup Company
Campbell Place
Camden, New Jersey 08103

and

Faith R. Greenfield, Esq.
Campbell Soup Company
Campbell Place
Camden, New Jersey 08103

X. RESERVATION OF RIGHTS

Nothing contained herein shall be construed to prevent Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking administrative, legal or equitable action as deemed appropriate and necessary, including seeking penalties against the Respondents for noncompliance with these Orders. Nothing contained herein shall be construed to prevent Ohio EPA from exercising its lawful authority to require the Respondents to perform additional activities, including closure of additional hazardous waste management units at the Facility, pursuant to ORC Chapter 3734. or any other applicable law in the future. Nothing herein shall restrict the right of the Respondents to raise any administrative, legal or equitable claim or defense with respect to such further actions which Ohio EPA may seek to require of the Respondents. Nothing in these Orders shall be construed to limit the authority of Ohio EPA to seek relief for violations not addressed in these Orders.

XI. SIGNATORIES

Each undersigned representative of a signatory to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such signatory to this document.

IT IS SO ORDERED:

_____ _____

Christopher Jones
Director

Date

XII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, and, subject to Section X of these Orders, in lieu of further enforcement action by Ohio EPA for only the violations addressed in these Orders, the Respondents agree that these Orders are lawful and reasonable, that the times provided for compliance herein are reasonable and that the Respondents agree to comply with these Orders. Subject to Section X., above, compliance with these Orders shall be a full accord and satisfaction for the Respondents' liability for the violations cited herein.

The Respondents hereby waive the right to appeal the issuance, terms and service of these Orders and hereby waive any and all rights they might have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and the Respondents agree that in the event that these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, the Respondents retain the right to intervene and participate in such appeal. In such an event, the Respondents shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

IT IS SO AGREED:

Campbell Soup Company

_____ _____
Date

_____
Title

Campbell Soup Supply Company L.L.C.

_____ _____
Date

_____
Title

Ohio Environmental Protection Agency

_____ _____
Christopher Jones Date
Director

OhioEPA
State of Ohio Environmental Protection Agency

RECEIVED
JUL 10 2001
OHIO E.P.A.
N.W.D.O.

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

July 3, 2001

Dr. Osman M. Aly
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Certified Mail

**Re: Campbell Soup Company and Campbell Soup Supply Company L.L.C.
Proposed Amendment to Director's Final Findings and Orders of
October 18, 2000**

Dear Dr. Aly:

Attached, as we discussed, are proposed Amended Director's Final Findings and Orders. The attached orders amend the Director's Final Findings and Orders of October 18, 2000 and propose to grant to Campbell Soup Supply Company L.L.C. and Campbell Soup Company a time extension for the submittal to Ohio EPA of a closure plan, as you requested.

Please review the Amended Director's Final Findings and Orders. I trust the orders, as amended, will meet with your approval. Please have a responsible corporate official of Campbell Soup Supply Company L.L.C. and Campbell Soup Company sign and date the orders and return the originally signed and dated orders to me. In turn, I and the Division of Hazardous Waste Management will recommend to the director of Ohio EPA that he sign the orders. The amended orders will then be entered into the director's journal and a copy of the amended orders, evidence of journalization, will be provided to you.

Section V, paragraphs 1. and 5. of the proposed amended orders, which replace paragraphs 1. and 5. of the October 18, 2000 orders, require that you submit a closure plan and information demonstrating that financial assurance has been established to Ohio EPA within 60 days after the effective date of the amended orders. Please note the effective date of the amended orders is the date of journalization. If you have any questions, or if there are any issues we need to discuss, please do not hesitate to contact me at (614) 644-2840.

Thank you in advance for your attention to this matter.

Sincerely,

Todd Anderson

Todd Anderson
Staff Attorney

Attachment

cc w/att: Michael Terpinski, NWDO
Jim Kavalec, DHWM CO

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Campbell Soup Company
World Headquarters
1 Campbell Place
Camden, NJ 08103-1799

and

Campbell Soup Supply Company L.L.C.
12 773 State Route 110
Napoleon, OH 43545

Respondents

Director's Final Findings and Orders

AMENDMENT TO DIRECTOR'S FINAL FINDINGS AND ORDERS OF OCTOBER 18, 2000

PREAMBLE

It is hereby agreed by and among the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders (Orders) are issued to the Campbell Soup Company and Campbell Soup Supply Company L.L.C. (Respondents) pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency (Ohio EPA) under § 3734.13 and § 3745.01 of the Ohio Revised Code (ORC).

II. PARTIES BOUND

These Orders shall apply to and be binding upon the Respondents, their assigns and successors in interest. No changes in ownership relating to the Facility will in any way alter the Respondents' responsibilities under these Orders. The Respondents' obligations under these Orders may be altered only by the written approval of the director of Ohio EPA.

III. DEFINITIONS

1. Unless otherwise stated, all terms in these Orders shall have the same meaning as used in the Director's Final Findings and Orders of October 18, 2000, and as used in Chapter 3734. of the ORC and the regulations promulgated thereunder.

2. The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

IV. FINDINGS OF FACT

The Director of Ohio EPA has determined the following findings of fact:

1. On October 18, 2000, the director issued Director's Final Findings and Orders to Respondents. All findings of fact made in the October 18, 2000, Director's Final Findings and Orders are hereby incorporated by reference.

2. The October 18, 2000 Director's Final Findings and Orders required Respondents to, *inter alia*, submit to Ohio EPA for review and approval a closure plan to close the Pits area at the Facility where hazardous waste was disposed of without a permit.

3. On November 2, 2000, Respondents submitted to Ohio EPA a closure plan as required by Order No. 1 of the October 18, 2000, Director's Final Findings and Orders.

4. By letter dated March 30, 2001, Respondents submitted to Ohio EPA a request to withdraw the closure plan due to numerous technical deficiencies contained within the closure plan. Respondents also requested an extension of time in which to submit a revised closure plan correcting the numerous technical deficiencies. In support of the extension request, Respondents have committed to working closely with Ohio EPA to correct all of the technical deficiencies prior to resubmitting to Ohio EPA the closure plan.

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VI. TERMINATION

The Respondents' obligations under these Orders shall terminate when the Respondents demonstrate in writing and certify to the satisfaction of Ohio EPA that all obligations under these Orders have been performed and Ohio EPA's Division of Hazardous Waste Management acknowledges, in writing, Ohio EPA's acceptance of this demonstration and certification.

This certification shall be submitted by the Respondents and shall be signed by a responsible official of the Respondents. The certification shall make the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

For purposes of these Orders, a responsible official is a corporate officer who is in charge of a principal business function of the Respondents.

VII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a signatory to these Orders, for any liability arising out of or relating to the operations of the Respondents' Facility.

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All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. Nothing in these Orders shall be construed as waiving or compromising in any way the applicability and enforcement of any other statutes or regulations applicable to the Respondents' operation of the Facility. Ohio EPA reserves all rights and privileges except as specified herein. Respondents reserve all rights and defenses which may be available at law or in equity and under any statute, regulation or common law applicable to Respondents' operation of the Facility, except as specified herein.

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and Ohio EPA Central Office at the following address:

For mailings, use the post office box number:

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Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

All documents to be submitted to Respondents under this Order shall be addressed to:

Dr. Osman Aly
Director - Environmental Affairs
Campbell Soup Company
Campbell Place
Camden, New Jersey 08103

and

Corporate Secretary
Campbell Soup Company
Campbell Place
Camden, New Jersey 08103

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IT IS SO ORDERED:

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Christopher Jones Date
Director

XII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, and, subject to Section X of these Orders, in lieu of further enforcement action by Ohio EPA for only the violations addressed in these Orders, the Respondents agree that these Orders are lawful and reasonable, that the times provided for compliance herein are reasonable and that the Respondents agree to comply with these Orders. Subject to Section X., above, compliance with these Orders shall be a full accord and satisfaction for the Respondents' liability for the violations cited herein.

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IT IS SO AGREED:

Campbell Soup Company

_____ _____
Date

_____
Title

Campbell Soup Supply Company L.L.C.

_____ _____
Date

_____
Title

Ohio Environmental Protection Agency

_____ _____
Christopher Jones Date
Director

G:\campbells modified formated 7-2-01.wpd (9/18/2000)

RECEIVED
MAY 14 2001
OHIO E.P.A.
N.W.D.O.

GeoTrans, Inc.
A TETRA TECH COMPANY

TRANSMITTAL COVER SHEET

710 Avis Drive
Ann Arbor, MI 48108
(734) 213-2204
Fax: (734) 213-5008

To: **Mike Terpinski** Date: **5/10/01**

Company:
Ohio EPA
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
From: **Craig Savage** Phone No.: **734-213-5042**

Remarks:

Mike – I am sending you some general information about dynamic work plan remedial investigations (using field analytical data to delineate contamination in one visit). Because we are loosely following this protocol for delineating the contaminated area at the Campbell Soup Napoleon Facility, it may be worthwhile for you to skim these documents - especially the EPA / Tufts University sponsored document - to understand what we're attempting to do.

If you have any questions, please feel free to call me at 734-213-5042.

Atlanta, GA	**Freehold, NJ**	**Sacramento, CA**	**Costa Mesa, CA**
(770) 642-1000	(732) 409-0344	(916) 853-1800	(714) 513-1415
(770) 642-8808 (FAX)	(732) 409-3020 (FAX)	(916) 853-1860 (FAX)	(714) 513-1276 (FAX)
Westminster, CO	**Milwaukee, WI**	**Reno, NV**	Tempe, AZ
(303) 426-7501	(262) 792-1282	(702) 324-5900	(480) 839-2800
(303) 426-7780 (FAX)	(262) 792-1310 (FAX)	(702) 324-5924 (FAX)	(480) 839-2828 (FAX)
Harvard, MA	**Las Vegas, NV**	**Richmond, VA**	**Sterling, VA**
(978) 772-7557	(702) 295-2033	(804) 346-5433	(703) 444-7000
(978) 772-6183 (FAX)	(702) 295-2035 (FAX)	(804) 346-5432 (FAX)	(703) 444-1685 (Main FAX)

This facsimile contains **Privileged and Confidential** information intended only for the use of the Addressee(s) named above. If you are not the intended recipient of this facsimile, or employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination or copying of this facsimile is strictly prohibited. If you received this facsimile in error, please notify us by telephone and return the original facsimile to us at the above address via the U.S. Postal service. Thank You.

A Guideline
for

Dynamic Workplans and Field Analytics: The Keys to Cost-Effective Site Characterization and Cleanup

Prepared by

Albert Robbat, Jr.
Tufts University, Chemistry Department
Center for Field Analytical Studies and Technology
Medford, Massachusetts, 02155
tel: 617-627-3474 and fax: 617-627-3443

In cooperation with

The U.S. Environmental Protection Agency, Region I
Office of Site Remediation and Restoration and
Office of Environmental Measurement and Evaluation
90 Canal Street, Boston, Massachusetts, 02203

Funded by

A Cooperative Agreement with the U.S. Environmental Protection Agency
under President Clinton's Environmental Technology Initiative and
with Support from the Northeast Hazardous Substance Research Center
An Environmental Protection Agency Research Center for Federal Regions I & II

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1.0 Introduction

The ability to rapidly assess the disposition of environmental contaminants at purported or existing hazardous waste sites is an essential component of the nation's environmental restoration program. Each site, whether owned by the public or private sector, must be evaluated to determine whether risk to human health or the environment exists. If the data obtained supports the notion that no risk or an acceptable level of risk exists for the intended land usage then no further action may be required. If, on the other hand, sufficient risk has been determined to warrant a full site characterization, the site investigation effort must delineate the nature, extent, direction, concentration and rate of movement of the contamination along with the physical and chemical site attributes.

Despite the best efforts of the U.S. Environmental Protection Agency[1] (EPA) and other federal agencies including the Departments of Defense and Energy to validate field analytical technologies, field analytics has not played a significant role in either hazardous waste site assessments or cleanup. In 1995, the EPA issued a Request for Proposals in support of President Clinton's efforts to promote application of innovative environmental technologies and to address the many factors that might pose barriers toward their commercialization. The President's Environmental Technology Initiative (ETI) is focused on accelerating environmental protection, strengthening America's industrial base, and increasing exports of U.S. technologies and expertise. The Tufts project was directed at two key objectives identified in the FY95 strategic plan: namely, strengthening the capacity of technology developers and users to succeed in environmental innovation *and* strategically investing EPA funds in the development and commercialization of promising new environmental monitoring, control, and remediation technologies.

The dynamic workplan guidance document represents one aspect of these objectives. The document is aimed at helping federal and state regulators, siteowners and their consulting engineers, and remediation companies understand what is involved in constructing and carrying out a dynamic workplan. The purpose of the document is to illustrate the many factors that should be considered in incorporating field analytical instrumentation and methods into an adaptive sampling and analysis program for expediting the site investigation process. This dynamic process should result in a faster, better, and hopefully cheaper site characterization and cleanup. With this goal in mind, field analytical technologies developed by the Tufts' Center for Field Analytical Studies and Technologies and with in-kind support from several commercial companies were demonstrated in the context of a dynamic workplan/adaptive sampling and analysis strategy. The ETI project, in part, supported an ongoing soil investigation study at Hanscom Air Force Base (Bedford, MA), see Hanscom report.[2] With the assistance of EPA Region 1, the Air Force and its contractor (CH2MHill), a video tape was produced illustrating the dynamic site investigation process.

---

[1] E. Koglin and L. R. Williams, Trends in Analytical Chemistry, 13, 294-299 (1994).

[2] A. Robbat, Jr., Tufts University, Case Study: Dynamic Workplans and Field Analytics: The Keys to Cost-effective Site Investigations, 1997.

1.1 Dynamic Workplans

Successful hazardous waste site investigations should be focused with goals and objectives clearly defined. This does not mean, as has been past practice, that the site investigation process should result in workplans that are "etched in stone." Figure 1 depicts a traditional sampling and analysis program. The workplan relies on pre-specified sampling locations, numbers of samples collected and the types of analysis to be performed. The traditional site investigation is static in its application. It does not provide a framework for changes in direction based on what is learned in the field. Samples are collected, packaged and typically sent off-site for analysis. Because data turnaround times range from several weeks to several months, analytical results are unavailable during the field investigation phase to address data "surprises" or concerns while the sampling team is still on site. Experience has shown that multiple field investigations within the same or subsequent seasons are required to fill data gaps. The traditional process results in several trips to the field by the sample collection and survey teams before the site investigation can be completed. This static process typically occurs during hazardous waste site cleanups as well.

Dynamic workplans, as shown in Figure 2, provide an alternative to the traditional approach. Dynamic workplans rely, in part, on an adaptive sampling and analysis strategy. Rather than dictate the details of the sample analysis to be performed and the location and number of samples to be collected, dynamic workplans specify the decision-making logic that will be used in the field to determine which chemical compounds require analysis, where to collect the samples and when to stop sampling. Adaptive sampling and analysis programs change as the conceptual model for the site is refined based on the analytical results produced in the field. A successful adaptive sampling and analysis program requires analytical methods and instrumentation that are field-practical and can produce data fast enough to support the dynamic workplan process.

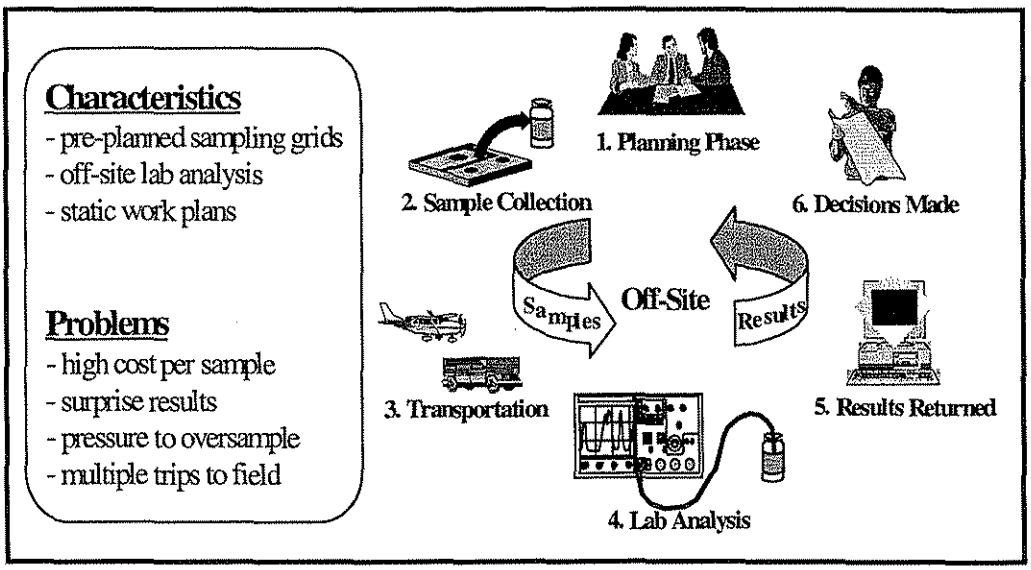

Figure 1. Traditional Site Investigation

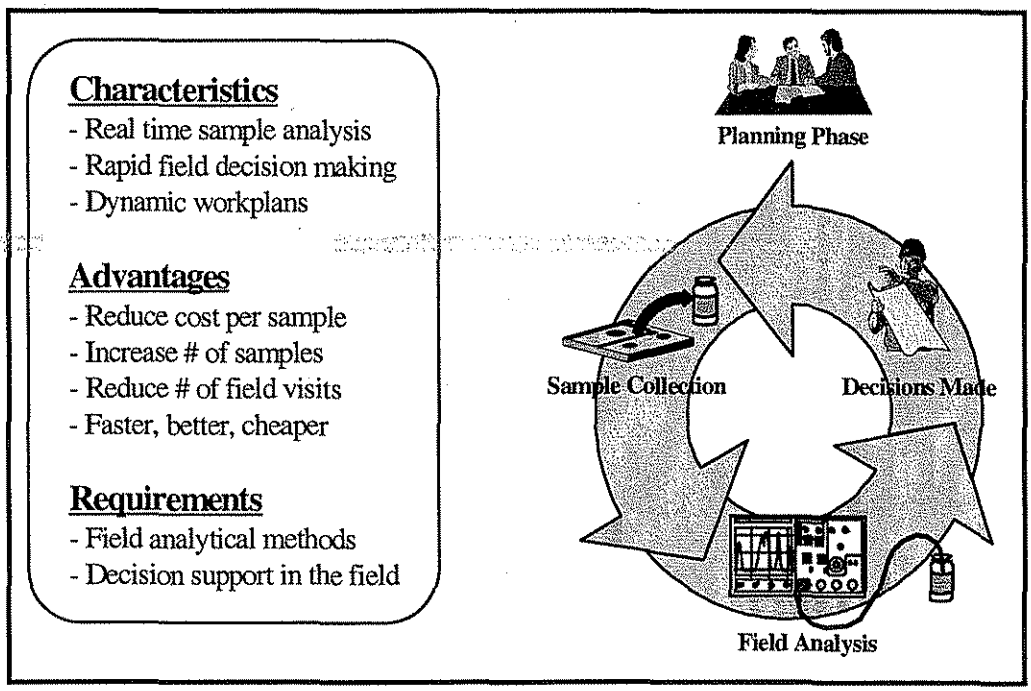

Figure 2. Dynamic Workplan Approach

1.2 Factors to be Considered

When deciding to carry out a Dynamic Workplan/Adaptive Sampling and Analysis program for projects consisting of complex chemical and physical site conditions, environmental contamination, and long duration, several factors should be considered before embarking on this approach. For example:

- Is it possible to assemble a well-rounded core technical team including analytical chemists, engineers, geologists, geochemists, geophysicists, hydrogeologists, risk assessors, and regulators?
- Will the core technical team be in the field for the duration of the field investigation? Is the decision making process well-defined and is the authority vested in an appropriate technical team member?
- Has the action level for field decisions, which rely on developing an understanding of the scientific and engineering questions under investigation, been established as part of the data quality objectives?
- Will the project objectives permit screening and semi-quantitative data or will quantitative data only be required to meet data quality objectives?
- Will more than ten percent of the samples analyzed in the field be sent off-site for laboratory confirmation analysis? Has the methodology for determining field and laboratory data comparisons been addressed?

- When selecting the field instrument or method, have measurement selectivity, sensitivity, precision, accuracy, representativeness, and action levels been addressed?

- When selecting the field instrument or method, have the measurement attributes listed above been addressed in sample throughput rates and cost? (Note that the number of sample cleanup steps and the time needed to prepare samples for analysis to meet the site-specific data quality objectives may limit throughput rates and increase sample costs.)

- Can standard operating procedures and method detection limit studies be completed before mobilization to evaluate matrix interferences that might be associated with a particular field technology?

- Will data management tools and geostatistical sampling tools be integrated into the field investigation?

- Is the site accessible for field analytic deployment including mobile laboratories, electrical power (line voltage versus a generator), and water if necessary?

- Has sufficient space been provided to house analytical instruments and staff, sample preparation, and data management in the field laboratory? Has proper ventilation been incorporated into the field laboratory?

- Does the length of the project and the potential overall cost savings warrant this approach?

2.0 Dynamic Workplan Guideline: Purpose and Objective

Dynamic workplan investigations are site dependent. They include field-based technologies and methods that produce chemical, physical, geological, and hydrogeological information about the site. The data generated must be of sufficient quality, with respect to measurement precision, accuracy, sensitivity, and completeness, to support the objectives of the site investigation or cleanup. The dynamic workplan plan guide described herein is not intended to be all inclusive. It does not address subsurface sampling tools; methods for collecting soil, water, or air samples; remote sensing and geophysical surveys; mathematical or computer modeling; nor will it discuss computer-based statistical sampling or the various site visualization tools. Depending on project objectives, a successful *dynamic* hazardous waste site investigation or cleanup will require one or more of these tools.

The guidance document is aimed at integrating field analytics into the Dynamic Workplan/Adaptive Sampling and Analysis process. It is intended to lay the foundation for incorporating an iterative process into the static but widely-used Data Quality Objectives (DQOs) framework for decision making planning. The guideline outlines field analytical instrument implementation, an adaptive sampling and analysis strategy, and site requirements.

3.0 The Dynamic Workplan Process

In the traditional approach, major decisions concerning the direction of the site investigation or cleanup are generally made by the project manager after the field work has been completed. A report is prepared presenting the findings to the appropriate regulatory body. Discussions begin about whether sufficient information has been obtained to address the scientific and engineering questions of concern. Typically, several field mobilizations occur, reports are written, with many meetings held between the siteowner and its environmental consulting company *and* the siteowner and federal and/or state regulatory agencies. In contrast, these same decisions are made in the field in an adaptive sampling and analysis program. In constructing the dynamic workplan, it is important to determine prior to mobilization what decisions will be made, how these decisions will be made, and who will make them in the field.

Step 1: Select the core technical team whose responsibility it will be to prepare the dynamic workplan. The technical team should possess expertise in analytical chemistry, geology, geochemistry, geophysics, hydrogeology, and risk analysis. The team helps with data management, QA/QC, risk assessment, fate and transport modeling, remedial action, community relations, and health and safety. The technical team will be responsible for:

1) gathering all available information for the site,

2) developing an initial "conceptual" model for the site,

3) identifying the technical objectives and goals to be accomplished,

4) supervising the field effort, making adjustments to the conceptual model based on the data produced in the field, and

5) evaluating the conceptual model and decisions made with respect to federal, state, and local regulations.

The core technical team will be responsible for making decisions in the field. One member of the team must have final decision making authority and responsibility to keep the site investigation process moving forward at a reasonable scientific and cost-effective pace. Some have proposed that the technical team be on site during the entire site investigation study[3]. This may not be practical or economically feasible for every project and is probably unnecessary given the currently available computer and telecommunication technologies. At least one member of the technical team should be on site at all times. This person must have a working knowledge of all aspects of the investigation or cleanup DQOs and be in daily communications with technical team members via electronic data transfer. Field personnel (and off-site technical team members) should be in regular communication with staff from federal and/or state regulatory agencies to ensure that decisions made in the field, typically under the pressures of time and field-resources utilization, are in conformance with the dynamic workplan framework.

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[3] ASTM Draft Provisional Standard Guide for Expedited Site Characterization of Vadose Zone and Ground Water Contamination, July, 1996.

Step 2: Develop the Initial Conceptual Model and Decision Making Framework.

Initial Conceptual Model. The initial conceptual model contains the best-available information at the start of the project. It depicts the three-dimensional site profile based on vadose zone and ground water flow systems that can exert influence on contaminant movement. Key site features such as roads, buildings, hydrography, depth to bedrock, direction of ground water flow, and potential preferential pathways for contaminant transport are mapped. Map cross sections should include water levels, high and low permeability zones, and aquifers. The conceptual site model is updated as additional data becomes available during the site investigation or cleanup process. The conceptual model is dynamic in nature and changes to reflect the increased site knowledge gained from field activities.

To assure efficient, effective decision-making the regulatory oversight organization should be included in developing the dynamic workplan. Stakeholders should 1) agree at the beginning on the most likely kinds of action(s) to be taken as a result of the field data, 2) implement the appropriate action on a daily basis as the data is generated, and 3) take new directions when the data suggests deviations from the conceptual model. It should be pointed out that site delineation is an iterative process and should be viewed as an ongoing experimental project.

The Decision Making Framework. The initial conceptual model is based on the Data Quality Objectives (DQO) for the site. The DQO process involves a series of planning steps designed to ensure that the type, quantity, and quality of environmental data used in decision making are appropriate for the intended application. It relates data needs to specific decisions to be made[4]. Briefly, the data quality objective process involves:

- Statement of the Problem. Concisely describe the overall study objectives outlining the scientific and engineering issues to be addressed. Review prior field studies and existing information to gain an understanding of the problem(s). Fuse soft information with hard data.

- Identify the Decisions to be Made that Will Address Each Problem. Independently, and then collectively, identify the types of decisions that will solve the problem(s) and the quality of sample collection and field analytical data required.

- Identify the Inputs to the Decision. Identify the information that needs to be learned in the field and the type of data quality needed to make field decisions.

- Define the Study Boundaries. Specify the range of conditions (time periods and situations) to which field decisions will apply, and within which field data will be collected.

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[4] EPA QA/G-4, "Guidance for the Data Quality Objectives Process" September 1994.

- Develop Decision Rules. Integrate the decision outputs from previous steps into an "if...then..." statement that defines the conditions that would cause the decision maker in the field to choose alternative actions and/or take different directions to solve the problem(s).

- Specify Acceptable Limits on Decisions. Define the decision maker's continuation on a given pathway or alternative action based on field data produced on site: Has the direction followed gone far enough such that any further continuance provides no or marginal added value on a cost/benefit basis?

- Optimize the Conceptual Model. Evaluate information from each previous step and generate alternative sampling and analysis pathways and data quality requirements based on the initial conceptual model. Refine the model and/or pathways toward collecting additional on-site data as new information is provided.

The DQO process is used to define the quantitative and qualitative criteria for determining when, where, and how many sample measurements to collect and at what desired confidence level. Because several different data qualities may be appropriate to answer the site-specific scientific and engineering questions that must be addressed, the term sufficient or acceptable data quality is meaningful only when the intended uses for the data are known. The intended use of the data today may be different from tomorrow. Therefore, it cannot be overemphasized that cost-effective site investigations are highly dependent on anticipating data usage during the life of the characterization-to-cleanup program.

Step 3: Develop Standard Operating Procedures. The next step in developing a dynamic workplan is to establish standard operating procedures (SOPs). SOPs for sample collection and analysis should be produced along with other SOPs required to answer site-specific questions, e.g., geophysical and hydrogeological surveys, etc. The SOPs should be developed by the core technical team and approved by the appropriate regulatory body prior to initiating field activities. The field methods should be "performance based" and provide data of sufficient quality to meet the DQOs, see Section 4. The USEPA is encouraging the use of field analytical technologies and methods to expedite hazardous waste site investigations and cleanups in Superfund, RCRA, and Brownfields[5]. Because these technologies and methods may not be amenable to typical CLP or SW846 methods, QC procedures or data reporting formats, supporting data produced from the proposed field techniques should be provided to document data quality. Note that CLP and SW846 methods are not always required by the EPA to generate data.

Step 4: Develop Data Management Plan. Critical to the success of the dynamic process is the ability to manage and easily use all of the data produced in the field. Data integration (chemical, physical, geological, hydrological), sampling, and analysis protocols should be incorporated into

[5] May 1, 1996, Federal Register 61FR 19431-19463.

an overall data management plan. Protocols for sample logging, analysis, data reduction, and site mapping should be established. Several different organizations may be involved in this process. The data management plan should be established with rules and responsibilities defined prior to mobilization for the collection, assimilation, and presentation of the field generated data. As an example, computers housed in the sample receiving, organics, and metals analysis laboratories can be electronically linked through Ethernet connections to the data management trailer on site. Sampling logging information and the results of the analysis can be managed through a Laboratory Information Management System or through the use of spread sheets. The data can then be downloaded to a computer containing site visualization software for conceptual model update and review. In this manner, contaminant profiles are more easily understood facilitating the on-site decision making process.

Step 5: Develop Quality Assurance Project Plan. This document contains the sampling method, analytical procedures, and appropriate quality assurance (QA) and quality control (QC) procedures. Quality assurance/quality control (QA/QC) defines the responsibility of the technical team and regulators. It describes the procedures to be used to monitor conformance with, or documentation and justification of departure from the SOPs. The overall goal is to ensure that data of known and adequate quality have been produced to support the decision making process. Again, data of varying quality can be produced to support a range of activities from sample collection to risk assessment.

Step 6: Prepare Health and Safety Plan. Finally, a health and safety plan is produced as part of the Dynamic Workplan/Adaptive Sampling and Analysis project. DQOs should be established for the field analytical tools used to monitor worker and community safety and should be presented in the health and safety plan.

After all field organizations have mobilized and all analytical instruments have been calibrated, it is recommended that a dry run be made to ensure that all participants understand their respective roles and that the quality control (QC) systems from sample collection-to-analysis-to-site contaminant visualization are well-understood and can be easily implemented. On-site data verification may also be desirable for projects of large scope and duration.

3.1 Adaptive Sampling and Analysis Strategy

Figures 3 and 4 illustrate the adaptive sampling and analysis strategy for a hypothetical soil screening site investigation aimed at determining contaminant risk to ground water and human health. Figure 3 depicts the decision making flow chart for the investigation. Figure 4 describes the change in analysis based on what is found at the site. Once the initial sampling data (Round 1) is obtained the conceptual model is evaluated for accuracy. Typically, several sampling rounds are required before confidence in the conceptual model is obtained. The number of sampling rounds, made during the same mobilization, is dependent on the DQO specifications for confirming the absence of contaminants in areas thought to be clean (candidates for no further

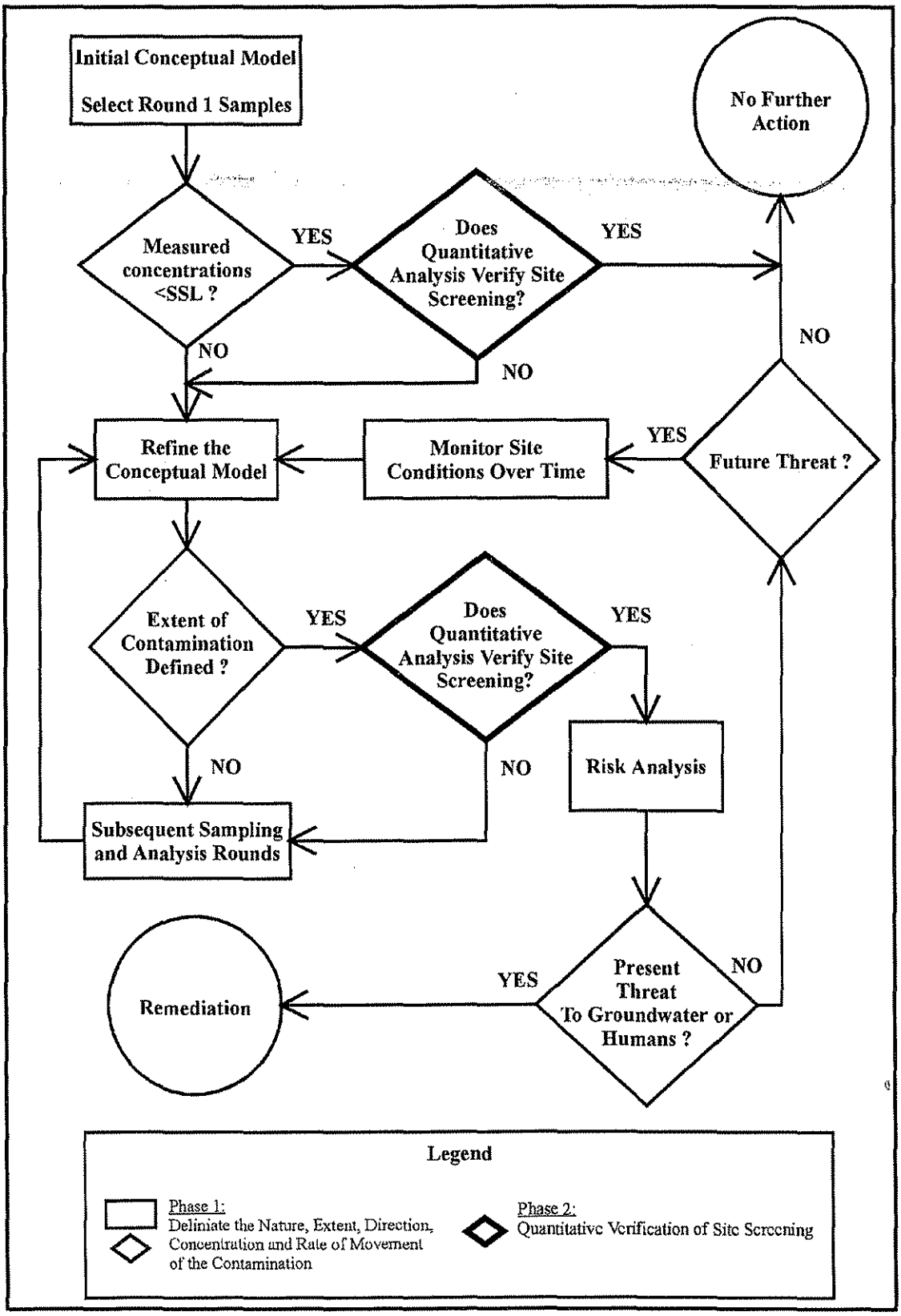

Figure 3. Adaptive Sampling and Analysis Flow Chart

action) *and* for determining the extent, direction, concentration, rate of contaminant migration, volume of contaminated soil and its risk to ground water and human health. Once the soil contamination profile objectives have been met and a verified conceptual model is produced, the data should be capable of delineating whether a particular area of investigation falls within three categories, namely:

- the site is clean or poses acceptable risk - no further action required
- the site is highly contaminated and well above action levels for acceptable risk - remedial action begins
- the site poses marginal risk - cost/benefit of an immediate cleanup not warranted, monitor for future action.

In the example provided, Round 1 samples are analyzed for the full Contract Laboratory Program (CLP) Target Compound List for volatile organic compounds (VOCs), semivolatile organic compounds (semi-VOCs), and metals if no prior field studies have been made. Target compound analysis is then performed for those contaminants found in each subsequent sampling round. As the analyte list decreases, more samples may be analyzed during the workday. Following the decision making logic through to completion, if site samples contain no detectable contaminants above the Soil Screening Levels (SSL) established for the site, site verification is made based on quantitative field analytical measurements. Several outcomes are possible. First, if the quantitative data verifies the field screening data and the data supports the conceptual model, no further action should be required at the site. Second, the comparison between field screening and quantitative measurements are within the site-specific DQOs for the data but the results do not support the conceptual model. In this case, additional sampling rounds are required to refine the model. Third, the comparison between quantitative and screening data fall outside of the acceptable DQOs, reassessment of the field screening tool is then required.

Following the alternative pathway, i.e., site screening measurements result in contaminant concentrations greater than the SSL's, sampling continues and the conceptual model is refined until the site-specific DQOs are met. The findings from the site screening effort are again verified by quantitative field analysis. Once the site data and conceptual model are verified, risk-based decision making occurs with respect to human health and the environment: that is, remediate or monitor for a future threat. At this point, new workplans must be produced to address site remediation or long-term monitoring needs. It should be pointed out that not all present or future threats will necessarily lead to a cleanup remedy. For example, the contamination may be technically impracticable to cleanup (dense non-aqueous phase liquids in bedrock) or natural attenuation may be proposed for the site.

Rather than relying on fixed grids, sampling is directed by geostatistical sampling tools that can predict where the next round of samples is collected. Because quantitative measurements are made on-site, greater confidence should be obtained in the sampling program. Phase 2 in Figure 4 illustrates one approach for verifying the site screening results. Recall that screening, semi-quantitative, or quantitative data can be generated in Phase 1 to develop the site model. If screening quality data, e.g., enzyme kits, is generated then more quantitative field, analytical data

should be produced to verify the results from the site screening phase. The number of locations within and surrounding each contaminated and non contaminated area as well as the number of depth samples at each location should be determined by the core technical team. An example is provided in the figure. The purpose of Phase 2 is to test the model and to verify the analytical results.

In an adaptive sampling and analysis program, contaminated areas are more heavily sampled than in traditional site characterization studies. Therefore, if semi-quantitative or quantitative field analytics is performed, no additional "quantitative" data may be necessary other than what is typical to verify data from one fixed-based laboratory versus another. Rapid, 5 to 15-minutes per sample, measurements should provide the majority of analyses during Phase 1, with 10% to 25% of these samples analyzed quantitatively in Phase 2. Off-site laboratory analysis should be performed only when on site quantitative analysis is not possible or cost-effective (Phase 3).

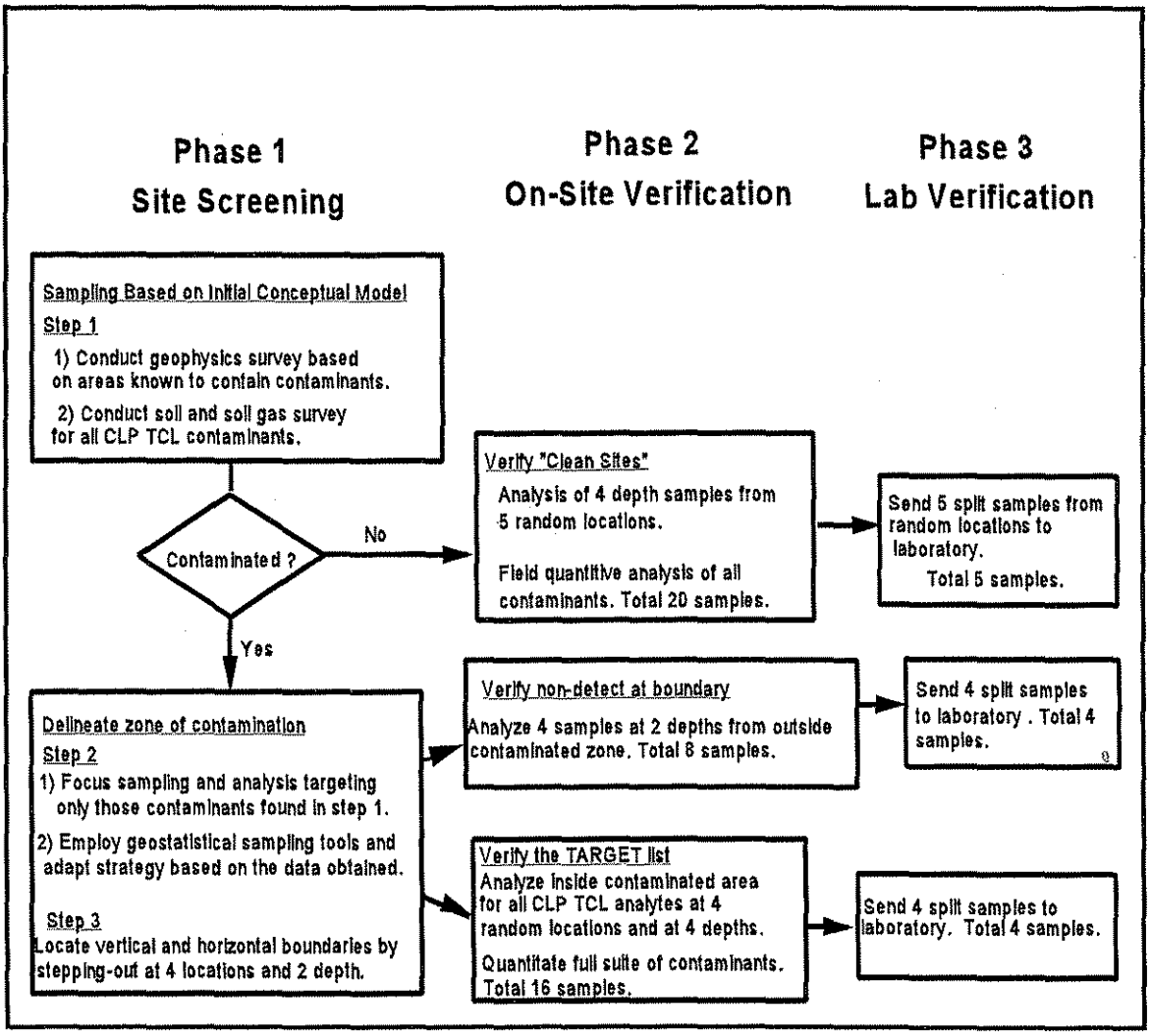

Figure 4. Example of Sampling and Analysis Flow Chart

Field results will differ from off-site laboratory results for VOC contaminated soil samples, with field measurements generally producing higher measurement concentrations because of analyte loss during off-site sample transport and storage. Care must be taken when these types of comparisons are made. Because site investigation and cleanup decisions are made based on field data, off-site laboratory analysis should be performed on no more than 10% of the samples analyzed quantitatively in the field. Field techniques that produce different data quality with the same instrumentation offer cost advantages over analytical techniques that produce either screening level or quantitative data[6]. Time and total project cost savings result when the sample load best matches the sample throughput rate of the instrumentation maximizing the effectiveness of field personnel and equipment, see Section 4.

Finally, field work begins based on the initial conceptual model. As new data are generated scientists and engineers may disagree over the direction(s) taken. Experience has shown that this will most likely occur based firstly on field discipline and secondly on stakeholder bias. One or more changes in direction should be proposed, with start/stop decisions delineated in the dynamic workplan. New results should refine the conceptual model and dictate future directions. Clearly articulated parameters with respect to sample number and DQO specifications obtained as a function of time should be identified in the workplan to set constraints on how long a particular pathway is followed before altering the investigation direction. One member of the siteowner technical team and one member of the regulatory oversight agency must have final site decision making authority. Site work stops when answers to the questions posed in the workplan meet site-specific confidence levels established as part of the DQO process. To ensure that site-specific goals have been met, the project team should statistically evaluate the results of its findings[7]. An adaptive sampling and analysis program focuses staff, equipment, and financial resources in areas where contamination exists while providing a cursory inspection in areas that pose no or little risk to human health and the environment.

4.0 Introduction to Field Analytics

The selection of field analytical methods is critically dependent on the need to make decisions in the field rapidly. Field analytical techniques should be capable of providing data from minutes to tens of minutes. They should have documented measurement sensitivity, precision, and accuracy to meet site investigation and cleanup DQOs. The simpler the technique the more likely it will be used in the field. Field instruments must be transportable, operate under adverse conditions, and provide improved cost/benefit over laboratory analysis. For projects of short duration and low sample volume, staff and equipment mobilization expenses may make field analytics a cost-prohibitive option. In addition, if quantitative measurements are required for all samples, field analytics may not provide a cost-effective means for obtaining site data. Rarely is this the case. Almost all projects will require screening or semi-quantitative data during the field

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[6] B. M. Abraham, T-Y Liu, and A. Robbat, Jr., Hazardous Waste & Management, 10, 461-473, 1993 *and* K. Jiao and A. Robbat, Jr., J. of AOAC International, 79, 1996.

[7] Guidance for Data Quality: Practical Methods for Data Analysis, EPA QA/G-9 EPA/600/R-96/084, July 1996.

screening phase of the site investigation. Even short projects of one to three days, where six to twelve samples per day may be collected, will benefit from field measurements. For example, head space gas chromatography (GC) can be simple and fast for the analysis of VOCs in soil and water samples during underground storage tank removal or well installation and monitoring. Enzyme kits can provide rapid detection of polychlorinated biphenyls (PCBs) or explosives during site characterization or remediation. Field instrumentation, such as in situ fiber optics and electrochemical sensors or portable GCs can be used to provide a security system to monitor underground subsurface contamination migration, process control, or fugitive emissions during site cleanups or long-term monitoring operations.

Field analytics can be routinely used to monitor worker and community health and safety during site investigations and cleanups. For example, the protection of workers from exposure to hazardous substances during sampling is of primary concern. In this case, sampling speed and limited sample handling is an important aspect of the measurement process. The sampling and measurement methods must be suitable to meet guidelines set forth by the National Institute for Occupational Safety and Health.

4.1 Field Measurement and Contaminants of Concern

The action level (or level of concern) defines the contaminant concentration needed to produce useful data to answer site-specific scientific and engineering questions. The selected field method must demonstrate method detection limits below the action level established for the site. The action level defines the concentration at which decisions can be made, including:

- nature and extent of contamination, i.e., field data supports the overall site investigation
- risk to human health and the environment, i.e., field data provides input into baseline risk assessment process
- achievement of cleanup objectives, i.e., field data supports site compliance with regulatory-imposed concentration levels

As an example, the EPA has compiled a list of contaminant soil screening levels for land usages based on different risk factors. These generic soil screening levels take into account the natural attenuation processes for the migration to ground water pathway(s) that can reduce contaminant concentrations in the subsurface. To insure that the field analytical instrumentation and methods selected in the workplan are amenable to a given site, site-specific method detection limit studies should be performed for each class of contaminants (e.g., VOCs, semi-VOCs, and metals) from soil obtained from the site prior to the field investigation. This will help to determine whether matrix interferents or target compounds mask (e.g., portable GC) or cross-react (e.g., enzyme/wet chemical kits) with targeted organics or metals (e.g., by electrochemical detection).

4.2 Field Analytical Techniques

Field analytics can be divided into two categories: real-time and "near" real-time measurements. Real-time measurements include those techniques that provide instantaneous analysis without the need for sample pretreatment. Examples include ion selective electrodes, fiber optic sensors, hand-held gas monitors, direct measuring GC's, and portable x-ray fluorescence (XRF) instruments. With the exception of XRF, these tools are typically used as continuous or in situ monitors for either gaseous or liquid streams.

Near real-time measurements typically include the more quantitative analytical techniques. They generally require some sample pretreatment prior to analysis of complex samples. These techniques include wet chemical and enzyme immunoassay kits; GC with a variety of non-specific detectors such as photoionization (PID) and flame ionization (FID), class-selective detectors such as electron capture (ECD for PCBs and chlorinated pesticides) or chemiluminescence (CD for nitrated explosives), and compound-specific detection by mass spectrometry (MS for identification of individual organic compounds); total petroleum hydrocarbon (TPH) analyzers; *and* inductively coupled plasma/optical emission spectroscopy (ICP/OES); XRF; and anodic stripping voltammetry for metals analysis. The size and experimental operating features dictate whether they are classified as field portable or transportable (laboratory-grade) instruments. For example, portable GCs are typically small in size, can operate off batteries but have ovens that cannot be temperature programmed (isothermal operation) or have slow temperature program ramps from ambient to 200 ^{0}C.[8] In either case, these GCs are best suited to qualitative analysis of VOCs. In contrast, GC/MS instruments require a generator or a line voltage power source, but can produce quantitative analysis of VOCs and semi-VOCs in the field.

In many instances, it is not necessary to have quantitative data for every sample during PCB, PAH, or explosives soil remediation. For example, when excavating soil, measurement accuracy can be as high as 40-70% as long as measurement precision is known. Enzyme kits and rapid screening GC with ECD, FID, or MS can provide this level of data quality. Quantitative analysis, on the other hand, is needed only for the pit closure samples to verify that the cleanup DQOs have been met. Field GC/MS can provide the necessary measurement sensitivity, precision, and accuracy to meet most site-specific cleanup DQOs. Similarly, VOC soil and water analysis by rapid screening GC with ECD/FID or MS is sufficient to determine vadose zone and ground water contamination profiles. More quantitative GC/MS data are required to determine the threat to ground water and the associated risks to human health and the environment. Performance-based methods can provide maximum flexibility to meet site-specific data needs.

A considerable amount of field analytical methods are available. Not every field method is amenable to the full range of environmental contaminants. Some are selective by design (enzyme and wet-chemical kits), while others are limited in scope (portable GC and XRF) or by media type (fiber optic, acoustic wave, and electrochemical sensors). Sample throughput rates in the field can also limit the effectiveness of field analytical measurements. Careful consideration should be given to these issues before selection of field analytical techniques or methods. The amount of sample preparation prior to analysis will determine the sample throughput rates that can be achieved. Experience has shown that field GC/MS can provide both screening and

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[8] Analytical Chemistry, 69, 195A-200A, 1997.

quantitative data for the full range of organics depending on the sample introduction system and data analysis software used. Data quality and throughput rates must be determined before the decision is made as to which field analytical technologies or methods are appropriate. An initial documented statement for the end use of the data incorporated into the data decision process will ensure that inappropriate data uses do not occur.

4.3 Sample Throughput Rates and Analytical Properties

No one laboratory technique or method is universally accepted for all EPA listed organic or inorganic contaminants. The selection of field methods for site characterization and cleanup depends on the material to be examined, contaminants and action levels of concern, QC requirements, sample throughput rates, and cost. Selection of field methods also depends on the type of data quality required to answer site-specific questions. It is important to have a clear understanding of the particular analytical properties required to meet site-specific DQOs and how the economic considerations of a given analytical problem affect some properties over others.

Accuracy and Representativeness are two key attributes of data quality. Accuracy refers to the closeness of the result between the measured and actual ("true") analyte concentration in the sample. Accuracy can be calculated based on the degree of agreement between the observed value and the accepted reference value. Commercially prepared standard reference materials (SRM) or site-specific SRM's are often used to determine accuracy. Representativeness is defined as the consistency between the result and the measured sample as well as between the result and the definition of the analytical problem. Representativeness is the degree to which data accurately and precisely represents the frequency distribution of a specific variable. Measurement accuracy can be influenced by the required measurement sensitivity, selectivity, and precision whereas representativeness is affected by sampling location exactness and sample homogeneity consistency. The influence of sampling on analytical quality is, overall, crucial. For example, blood-sugar from a diabetic more than 1-hr after a hypoglycemic attack is not representative of the blood-sugar concentration at the time of the attack. Likewise, collecting soil samples two feet apart and expecting one of the samples measured by the field laboratory to be representative of the other sample analyzed by either the on-site or off-site laboratory is unreasonable. No other analytical property can be justified without representativeness. Because of subsurface soil inhomogeneities, collecting the many statistical samples necessary to gain the confidence needed to delineate the extent, direction, concentration and rate of contaminant movement is generally too costly in the traditional site investigation approach. The adaptive sampling and analysis strategy helps to focus the sampling effort in areas where contamination has been identified which, in turn, results in more data produced in the areas where it is needed. Nonetheless, the analytical measurement process is most often the bottleneck that controls the rate of the site investigation when compared to sample collection.

Assuming representative samples have been collected, measurement accuracy is directly dependent on the relationship among three key analytical parameters: precision, selectivity, and sensitivity. Accurate results cannot be obtained unless the measurement technique produces selective detection and adequate sensitivity. Selectivity refers to the instrument's or method's ability to respond to target compounds in the presence of nontarget sample constituents. For

example, if the analytical technique responds to the presence of matrix interferents or cross-reactive target compounds, measurement identity is affected and thus, accuracy. Moreover, if the analyte concentrations in the sample are at or just below the method detection limit, the measured concentrations may be inconsistent (precision). Measurement precision is the degree to which a set of analyses of the same parameter conforms to itself. To achieve unambiguous analyte identification and the desired method detection limit, extensive sample preparation procedures may be required to remove matrix constituents, dilute, or pre-concentrate the sample extract. These additional steps lengthen the overall time of the analysis (sample throughput rate).

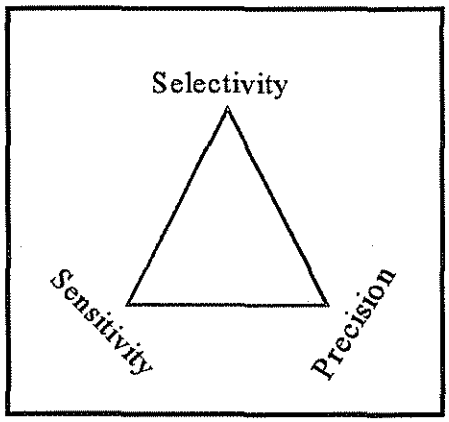

Figure 5. Data Attributes

Generally, as one property of the equilateral triangle is improved, one or both of the remaining analytical properties can become distorted. For example, increasing the number of sample preparation steps prior to the analytical measurement can result in loss of analyte, which, in turn, can influence measurement sensitivity and thus, accuracy (false negative). Another example is the detection of nitrated explosives by selective reagents such as enzymes. Field-practical enzyme immunoassay kits can significantly reduce the time of analysis over laboratory high performance liquid chromatography (HPLC) methods by eliminating the need for sample cleanup procedures. False positive detection is possible, however, due to cross-reactivity with other nitrated organic compounds that might be present in the sample. Although advancements in analytical instrumentation, sophisticated spectral deconvolution software routines, and compound-specific reagent chemistry have increased laboratory productivity, sample throughput rates and data quality are greatly influenced by the triangular interactions among selectivity, sensitivity, and precision. As increasingly more stringent measurement accuracy is specified, sample throughput rates decrease. For example, several published reports document the wide range of measurement precision and accuracy that is obtained when employing EPA method 8080 (20-min/sample) as compared to the more comprehensive congener-specific (90-min/sample) analysis for PCBs.[9,10,11]

The relationship between sample throughput rate, data quality, and field investigation costs can be viewed as follows. Assume a 10-hr workday with two hours set aside for lunch, daily meetings, instrument maintenance and lab cleanup. Also assume that each analysis requires a 5-min cycle time before the next sample can be analyzed and that any sample preparation procedures that might be necessary to remove nontarget matrix interferences occur separately from the analysis. Table 1 summarizes the relationship between number of samples that can provide information about the site and the number of QC or re-analysis samples required to

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[9] R. Eganhouse, and R. Gossett, Anal. Chem., 63, 2130-2137 (1991).

[10] D. Kimbrough, C. Rustum, and J. Wakakuwa, Analyst, 119, 1277-1281 (1994).

[11] G. Frame, J. Cochran, S. Bøwadt, JHRC., 19 657-668 (1996).

determine data quality as a function of sample throughput rate. Assume that in this hypothetical site investigation 300 soil samples are analyzed for PCBs at a soil screening level of 0.5-ppm to determine risk to ground water.

Table 1. Number of Samples Analyzed per Day

	TDGC/MS or Enzyme Kit 10-min/sample		EPA method 8080 20-min/sample	
Total Site Samples	300	300	300	300
Site Samples Analyzed Per Day	22	18	14	10
Site Samples Re-analyzed	3	5	0	2
Blanks	2	2	1	2
Replicate Analysis	2	3	1	2
Accuracy (SRM)	1	2	1	1
Initial/Final Calibration	2	2	2	2
Total Analysis/Day	32	32	19	19
Total Field Days	14	17	22	30

The number of field days needed to complete the site investigation presumes no loss of time for instrument breakdown, repair and/or re-calibration. If, for example, five samples are re-analyzed rather than three due to matrix interferents, detector overload, or frequency of field duplicates *and* three samples are analyzed to determine measurement precision and accuracy, a total of 17 site samples can be analyzed per day as compared to 22 for the 10-min analysis. Increasing the number of quality control or re-analysis samples decreases the number of site samples that can provide information about the site. A total of 18-days will be needed to complete the project as compared with 14-days when the sample throughput rate is 10-min/sample.

When analyzing soil samples by EPA method 8080 in the field, adding additional non site samples will result in the project being completed in 30-days versus 22-days. Apparent is the fact that the sample collection and field analysis rates must be matched and that the site-specific DQOs be well-understood in the context of selecting appropriate field analytical techniques, methods, and QC procedures. If, for example, PAHs must also be analyzed, then no additional analysis time is required by TDGC/MS, i.e., PCBs and PAHs are analyzed simultaneously. When standard laboratory technologies or enzyme kits are employed two separate analyses must be performed,

increasing total project costs. Note that these field laboratory costs do not represent total project costs. For TDGC/MS analyses minimal sample preparation is required. Although the extraction and cleanup of 20 samples can be accomplished in two hours for method 8080, the field laboratory must accommodate the sample preparation station and staff to achieve reasonable throughput. Expenses for the sampling crew and core technical team plus any other field services work must be added to the overall project costs.

When the principal organic contaminants and action levels are known, the selection of the field method should be straightforward. In complex mixtures, indicator compounds such as trichloroethene, carbon tetrachloride, or benzene may be used as surrogates for fast GC analysis. Although dual detector GC with ECD and either FID or PID costs less than most field or laboratory GC/MS instruments and, until recently have been easier to operate, only MS can provide unambiguous identification of VOCs. Contaminant concentrations, persistence in the environment, mobility and/or fate can be estimated from the detection of indicator compounds. If the principal contaminants at a site are unknown, field GC/MS provides the only reliable means of determining compound identity and concentration. For VOC analysis, purge and trap GC/MS can be performed as easily in the field as in the laboratory.

For semi-VOCs sample preparation is the rate-determining step when analyzing the EPA listed target compounds. Semi-VOCs must be extracted from soil or water into an organic solvent prior to analysis. Depending on the complexity of the matrix, the extract is further separated into fractions that contain compounds of similar chemical characteristics (e.g., PCB/pesticides, PAHs, explosives, acids, base/neutrals). These fractions may require additional separation before analysis by GC with ECD or MS; HPLC with UV and/or fluorescence detection; or by class-specific reagent chemistry such as the enzyme immunoassay kits. Sample cleanup, pre-concentration and/or sample dilution add extra steps to the measurement process and must be factored into field-practical sample throughput rates. Until recently, on-site analysis has only been possible for PCBs (portable GC with electron capture detection) and explosives (enzyme kits) because of time and cost constraints (sample preparation) in the field. In contrast to class-selective analysis provided by these technologies, TDGC/MS can provide rapid compound-specific analysis of most semi-VOCs.

Similarly, the same rationale applies to the analysis of soil contaminated by metals. Portable XRF provides screening level to semi-quantitative data without the need for sample preparation. Sample throughput rates exceed the data turnaround times that can be produced by field-based ICP/OES instruments. ICP/OES, however, provides more quantitative data at concentrations several orders of magnitude less than XRF can achieve. In contrast, metals analysis by electrochemical detection (anodic stripping) requires sample preparation for soil samples but not water samples and is more selective and sensitive than portable XRF instruments. As discussed above, every analytical measurement requires a trade-off among the properties precision, selectivity, and sensitivity.

4.4 Site or Facility Requirements

The physical layout of the site must have access to deploy and setup a field laboratory if the field activities extend beyond a one-week period. The site or facility should have line voltage power or a dependable source of electricity from a generator if a wide variety of field instruments and computing power are required. Power from a generator must be put through a filter to smooth out voltage fluctuations to protect analytical instruments and computers. The mobile laboratory or facility must have the proper footprint to house instruments, hoods, computers, refrigerators, and staff comfortably. The mobile laboratory should be heated in the winter and cooled in the summer. For instruments like the ICP/OES, field laboratory temperatures must be climate controlled to within ± 10 ^{0}C to achieve high quality data. Proper ventilation must be provided to protect worker safety and to separate volatile vapors produced during sample preparation procedures from cross-contaminating the organics analysis laboratory.

Access to on-site field laboratories should be limited to authorized personnel. Instrumentation, laboratory equipment, and utilities should be maintained to perform the required operations. Safety equipment should be available and readily accessible, e.g., eye wash, fire blanket, safety supplies. All instruments and equipment should be kept secured when not in use. These are customary practices of fixed-based laboratory operations.

Design and implementation of sampling programs should address situations or conditions necessary for the controlled use, storage, and disposal of sample material (e.g., soil discard, purged waters), equipment decontamination residues and remnants of samples. It should also ensure that all activities that may impact environmental data are documented and recorded in field notebooks. Field analysis will result in the production of waste materials commonly handled in off-site laboratory operations. Regulatory acceptance of these waste handling procedures should be obtained and incorporated into the workplan.

4.5 Quality Control

Sampling designs should minimize integrations between high and low concentration areas, as well as minimize common utilization of equipment, instrumentation, and facilities. A formal active contamination control program should exist that minimizes the potential spread of contamination. The collection of grab samples, e.g., individual samples collected at a specific time and location, is acceptable for TPH, semi-VOCs, VOCs, and metals. Composite samples, collected by homogenizing a sample interval or sample collection from different locations and times, are acceptable for TPH, semi-VOCs, and metals. A composite sample is not acceptable for VOCs since analyte will be lost during the homogenization process.

Prior to selecting the field analytical methods, it should be well-understood by all stakeholders as to the quality of acceptable data that will be sufficient to address site investigation or cleanup DQOs. The DQOs will dictate the limits of measurement error, selectivity, sensitivity, and resolution for the field measurement and how these attributes affect sample throughput rates, the on-site decision making process, and cost. DQOs should, therefore, dictate acceptable limits for measurement precision, accuracy, representativeness, and completeness. Once these attributes

have been defined, specific QC criteria (e.g., initial and continuing calibrations, laboratory control check sample (SRM) accuracy), frequency (e.g., every 10th or 20th predetermined, random, or positively detected sample) and, number (e.g., n = 2 or more) of repetitive sample analysis can be determined. This information must be included in the site specific-SOPs.

Goals for precision and accuracy should be established in the dynamic workplan. For example, site characterization, treatability study, or remedial action measurement precision or accuracy may differ greatly and should be based on the criteria needed to answer project-specific questions concerning the stated problem(s). A well-defined description of precision and accuracy benchmarks, instruments, field methods, chemical standards and reagents employed should be documented.

Goals for data representativeness should be addressed qualitatively since sampling locations, depths, intervals, frequency of split sampling and of QC check samples may change in the field based on new directions and requirements.

Goals for completeness and comparability of investigation are achieved when the study goals have been met. An analytical measurement value is considered complete if QC results are within acceptable ranges. There can be no assurances that the data produced by standard laboratory methods and instruments are any better than the field data. Comparability should be based on how well the field and laboratory produced data within their respective internal and external QC checks *and* through some minimum level of field versus laboratory data comparison (e.g., ≤ 100% may be an acceptable error range for some types of data usages). Federal and state regulators, siteowners, and their consulting engineers have a tendency to be risk-averse. Typically, the highest level of data quality is requested whether needed or not. As shown in Section 4.3, improper matching of sample collection, sample analysis throughput rates, and site-specific DQOs can easily lead to inefficient sampling and analysis programs and thus, cost.

5.0 Dynamic versus Traditional Investigation and Cleanup Costs

Dynamic workplans provide the framework for collecting chemical, physical, geological, and hydrological data in one or two field efforts as compared to the phased engineering approach of collecting data then evaluate, collect more data then evaluate ... until sufficient information is obtained to meet the study objectives. Fixed-based (commercial) laboratories should be able to generate data of comparable (either screening or quantitative data) quality at lower per sample costs than field/mobile laboratories. Economies of scale should be more easily achieved by fixed-based laboratories since they are designed for mass production. However, steep sample surcharges (100-200%) are generally added to the base price if samples are moved up in the queue to obtain one to three day data turnaround times. Moreover, fixed-base laboratory sample analysis costs vary greatly between regional (typically local non Contract Laboratory Program) and national laboratories.

Comparing the selection of field instruments as a function of cost is difficult. Field instruments and methods should be chosen first to meet the data quality requirements and second based on their ability to match the rate at which samples are collected. To illustrate the first

point, assume that the 16 target compound PAHs and PCBs require soil analysis to determine risk to ground water and that the action levels for PAHs are between 2-ppm (benz(a)anthracene, dibenz(a,h)anthracene) and as high as 40,000-ppm (fluoranthene and pyrene) *and* 1-ppm for total PCBs. These values are based on the 20DAF soil screening levels (SSLs, USEPA 1996), which refer to a dilution-attenuation factor (DAF) of 20. The SSLs take into account the natural attenuation process for the migration to ground water pathway that can reduce contaminant concentrations in the subsurface. Assume that the action level for the site has been established at one-half the 20DAF. For PAHs and PCBs these values are 1-ppm and 0.5-ppm, respectively. The method detection limit (sensitivity) has been determined at 0.5-ppm for GC/FID and 0.3-ppm for TDGC/MS.

Table 2 lists site-specific action levels for the hypothetical site investigation along with the data quality attributes, sample analysis, and the total number of samples analyzed per day throughput rates for field GC/ECD, TDGC/MS, and enzyme kit analyses. Tables 1 and 3 illustrate the impact of sample analysis rate and the number of site samples that can be analyzed per day. It may be necessary to make trade-offs among the data quality attributes of selectivity, sensitivity, and precision in conjunction with sample throughput rates to meet the site-specific DQO's and action levels *and* to provide a cost-effective field analytics program. This type of review should be made to insure that the selected field technology meets the site-specific DQOs established for the investigation or cleanup verification program.

The second point is not a trivial or obvious statement. If sample analysis lags behind sample collection, sample collectors and decision support staff sit idle waiting for data to be produced. On the other hand, if sample collection is operating below capacity, analytical instruments and field-laboratory personnel sit idle. In both cases, site investigation efficiency and cost is lost. Therefore, it is essential that the analytical team member play an integral role in designing the sample collection program. Moreover, combining field screening and on-site quantitative analysis into the program should increase the total number of samples analyzed while decreasing the number of samples sent off-site for traditional laboratory analysis.

Table 3 summarizes the field and laboratory sample charges and data turnaround times for the analysis of VOCs, PCBs, PAHs, explosives, and semi-VOCs. Shown in the Appendix are assumptions and costs used to determine the TDGC/MS, portable GC, and enzyme/colorimetric kit per sample charges. Commercial laboratory charges vary widely depending on the size and revenue amount of the laboratory and the number of national programs the laboratory participates in (e.g., Contract Laboratory Program, U.S. Army Corps of Engineers, HAZWRAP, and state certified programs). Field analytical technologies can provide analyses comparable in cost to regional or local laboratories employing EPA standardized methods with same or next day data turnaround times as compared with 14 to 35-days by commercial laboratories. Field analytics compete best when total project cost is considered and when it is incorporated into the Dynamic Workplan/Adaptive Sampling and Analysis Program. Cost savings can be realized when:

- sample selection and locations are optimized. Increased sampling efficiencies result in more targeted sample collection efforts minimizing the handling of samples that provide little value toward answering site-specific DQOs - faster site characterizations and verification of cleanup.

- the identity of the contaminants becomes known. Increased field analytical productivity is obtained when the type of analysis performed is more targeted resulting in more samples analyzed per day - faster site characterizations and verification of cleanup.

- more data are produced in less time. More informative decisions are made that improve the site delineation process, i.e., the separation of highly contaminated areas from non-contaminated areas - better site characterizations and verification of cleanup.

- a more detailed picture of the site is obtained, viz., the nature, extent, direction, concentration and rate of contaminant movement. Increased confidence in evaluating the risk to human health and the environment results - better site characterizations and verification of cleanup.

- more efficient utilization of human and financial resources is obtained. Increased project efficiencies lead to more data obtained at lower total project costs - cheaper site characterizations and verification of cleanup.

The rationale for selecting an adaptive sampling and analysis program should be based on the inherent efficiencies obtained when decisions are made in the field and the overall total project cost savings that can accrue.

Table 2. Comparison of Field Technologies for PCBs and PAHs

Polycyclic Aromatic Hydrocarbons					Polychlorinated Biphenyls		
Site-specific DQO's and Action Level	**Attributes**	**GC/FID**	**TDGC/MS**	**Enzyme Kits**	**GC/ECD**	**TDGC/MS**	**Enzyme Kits**
Yes	**Selectivity**	No	Speciate	class-specific	Yes	Speciate	class-specific
1-ppm/PAH 0.5-ppm total PCB	**Sensitivity**	0.5-ppm	0.3-ppm	MFG. and Compound Dependent	0.03-ppm	0.2-ppm	Aroclor Dependent 0.5 to 1-ppm
≤ 40%	**Precision**	≤ 40%	≤ 40%	MFG. Dependent ≤ 40%	≤ 30%	≤ 40%	MFG. Dependent ≤ 40 %
No No	**Accuracy biased toward: false positive false negative**	Yes No	No No	Yes No	Yes No	No No	Yes No
	Analysis Rate/Sample	20-min	10-min	10-min	20-min	10-min	10-min
	Total Number of Samples Analyzed per 10-hr work day	19	32	32	19	32	32

Table 3. Field and Laboratory Cost and Data Turnaround Time Comparison

Analyte	Regional Laboratory Data Turnaround: 14 Calendar Days	National Laboratory Contract Laboratory Program Data Turnaround: 35 Calendar Days	Field TDGC/MS Data Turnaround: Next Day	Field GC/PID or GC/ECD Data Turnaround: Next Day	Strategic Diagnostic Enzyme Kits Data Turnaround: Same Day
VOCs	$125/sample SW 846 method 8240/8260 25-min/sample analysis	$165/sample SW 846 method 8240/8260 25-min/sample analysis	$100/sample modified 8260 20-min/sample	$88/sample modified 8021/8015 or headspace analysis 25-min/sample	Not Applicable
PCBs	$100/sample SW 846 method 8080 20-min/sample analysis; sample preparation 2-hr/batch of 20 samples	$150/sample SW 846 method 8080 20-min/sample analysis; sample preparation 2-hr/batch of 20 samples	$100/sample modified 8270 10-min per analysis; sample preparation 1-hr/batch of 20 samples	$88/sample field method 20-min analysis; sample preparation 1-hr/batch of 20 samples	$102/kit field method 10-min analysis time; sample preparation 1-hr/batch of 20 samples
PAHs	$145/sample SW 846 method 8100/8310; 20-min/sample analysis, sample preparation 2-hr/batch of 20 samples	$255/sample SW 846 method 8100/8310 20-min/sample analysis; sample preparation 2-hr/batch of 20 samples		Not Applicable	$102/kit field method 10-min analysis time; sample preparation 2-hr/batch of 20 samples
Explosives	$180/sample SW 846 8330/USAED 30 20-min/sample analysis; sample preparation 18-hr/batch of 20 samples	$220/sample SW 846 8330/USAED 30 20-min/sample analysis; sample preparation 18-hr/batch of 20 samples	$100/sample modified 8270 10-min per analysis; sample preparation 1-hr/batch of 20 samples	Not Applicable	$102/kit field method TNT & RDX kits required 20-min per analysis; sample preparation 1-hr/batch of 20 samples
Semi-VOCs	$400/sample SW 846 method 8270 40-min/sample analysis; sample preparation 4-hr/batch of 20 samples	$450/sample SW 846 method 8270 40-min/sample analysis; sample preparation 4-hr/batch of 20 samples	$150/sample modified 8270 20-min per analysis; sample preparation 1-hr/batch of 20 samples	Not Applicable	Not Applicable

Appendix

Field Analysis Costs

Table 4 illustrates the per sample costs for field-based TDGC/MS, GC with PID or ECD, and wet chemical or enzyme kit analysis. In the cost example, a Hewlett Packard GC/MS (model GCD) was modified to introduce samples via thermal desorption (TD), with the data analysis accomplished by the Ion Fingerprint Detection™ (IFD) software. Field GC/MS instruments such as the Viking Instrument, ~ $120,000 when fully equipped, will add $5.50 to the GC/MS sample cost shown in the table. The TDGC/MS with the IFD software can provide simultaneous detection of PCBs and PAHs in complex petroleum contaminated soil samples in 10-min. The Photovac GC/PID can provide full VOC analysis in the field. As discussed in Section 4, photoionization (PID) and electron capture (ECD) detectors provide qualitative compound-specific information as compared to the MS. These GC detectors can not provide unambiguous compound identification but can provide rapid field screening analysis of VOCs. The cost of a field-based GC/ECD has also been estimated for PCB analysis. The enzyme or colorimetric kit costs shown in the table have been calculated based on an average per kit price that assumes 40 analysis per calibration for either the Ensys or Ohmicron kits. Sample analysis of less than 40 samples per calibration will result in increased sample costs.

The cost analysis is based on a one time purchase of capital equipment and includes any modifications that are required to produce high throughput field analysis; a vehicle for field transport of staff, instrument and supplies; and generator for power. Annual operating costs assume a total of 4,500 soil samples will be analyzed over a 180-day field season by two chemists. This represents an average of 25 samples analyzed per day. Since nearly 70% of the cost to provide service is in salary any additional field days will reduce the per sample cost, while booking work for less than the assumed 180-days will increase the respective sample analysis cost. Finally, the per sample cost was calculated over a five year period. The calculation takes into account the time value of money based on present value of future costs to provide the service. It ignores inflation and assumes a 4% discount rate. Details of the capital purchases and annual operating costs can be found in Tables 5 and 6. Although commercial laboratories provide volume pricing, no one project or account will dramatically affect the laboratory life-cycle per sample cost. Included in the commercial laboratory per sample charges are costs for staff, equipment, supplies, space, management, accounting, marketing and sales. An industry conservative 2.5 multiplier was used to estimate the field comparable per sample charges for each technology.

Table 4. Field Analytical Measurement Costs

	TDGC/MS	GC/PID or ECD	Enzyme Kits
Initial Capital Costs	$76,000	$47,500	$27,500
Total Annual Operating Costs	$178,828	$161,978	$283,595
Present Value of Life-Cycle Costs (assume 4% discount)	$903,890	$797,383	$595,699 (direct costs) $770,818 (kits)
Total Number of Samples Analyzed Over 5-years	22,500	22,500	22,500
Cost per sample analysis	$40	$35	$27 direct cost plus $34/kit
Total Sample Cost with 2.5 multiplier*	$100	$88	$102

* Overhead cost provided by Steve Maxwell, Technology Strategic Group, Boulder, Colorado

Table 5. Capital Equipment Costs

	Capital Equipment		**Capital Equipment**		**Capital Equipment**	
Instrument Costs	HP GC/MS full VOC and SVOC analysis 486 computer, operating/data analysis software and libraries, LaserJet printer, split/splitless inlet, diffusion/rouging pumps	$45,000	Photovac GC/PID full VOC capability oven/column & re-charge battery, start up kit, printer & cable	$26,500	SDI Enzyme Kits PAH, PCB, and Explosives Spectrometer, balance, and computer and printer	$6,500
Modifications	Thermal Desorption Unit	$10,000				
Vehicle	Van	$20,000	Van	$20,000	Van	$20,000
Power Supply	2.5 kW generator	$1,000	2.5 kW generator	$1,000	2.5 kW generator	$1,000
	Total Cost	$76,000	**Total Cost**	$47,500	**Total Cost**	$27,500

Table 6. Annual Operating Expenses

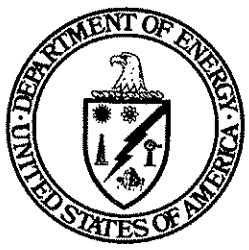
	GC/MS Operating Costs		Portable GC Operating Costs		Enzyme Kits Operating Costs	
Labor	two full time chemists	$120,000	two full time chemists	$120,000	two full time chemists	$100,000
Software	Ion Fingerprint Detection™	$10,000				
Materials and Supplies	GC columns (13), fittings, and septa	$6,500	GC columns (13), fittings, and septa	$6,500	$37/sample average kit price, PAH, PCB, explosive	$166,500
	electron multiplier &source	$3,000	detector lamp	$650	detector lamp	$550
	pump oil	$1,000				
	helium carrier gas ($4/day at 180-day)	$720	He carrier gas ($4/day at 180-day)	$720		
	calibration standards	$3,500	calibration standards	$3,500		
	reagent water ($4/day at 180-day)	$720	reagent water ($4/day at 180-day)	$720	reagent water ($4/day at 180-day)	$720
	vials ($175/case)	$10,938	vials ($175/case)	$10,938	vials ($175/case)	$10,938
	spatula	$50	spatula	$50	spatula	$50
	syringes (15)	$1,000	syringes (15)	$1,000		
	coolers (3)	$120	coolers (3)	$120	coolers (3)	$120
	solvents (40-L)	$750	solvents (40-L)	$750	solvents (10-L)	$187
Vehicle Costs	insurance	$1,500	insurance	$1,500	insurance	$1,500
	maintenance ($100/month)	$1,200	maintenance ($100/month)	$1,200	maintenance ($100/month)	$1,200
	gas (20K miles/year at $1.33/gal)	$1,330	gas (20K miles/year at $1.33/gal)	$1,330	gas (20K miles/year at $1.33/gal)	$1,330
Overhead	QA/QC 2-months	$12,000	QA/QC 2-months	$12,000	QA/QC 2-months	$12,000
	maintenance contract HP	$4,500	maintenance	$1,000		
	Total	$178,828	**Total**	$161,978	**Total labor and supplies**	$128,595
					Cost of 4,500 kits, $37 each	$166,500

INNOVATIVE TECHNOLOGY
Summary Report

DOE/EM-0420

Expedited Site Characterization

Characterization, Monitoring, and Sensors Technology Crosscut Program and Subsurface Contaminants Focus Area



Prepared for

U.S. Department of Energy

Office of Environmental Management
Office of Science and Technology

December 1998

INNOVATIVE TECHNOLOGY
Summary Report

Expedited Site Characterization

OST Reference #77

Characterization, Monitoring, and Sensors Technology Crosscut and Subsurface Contaminants Focus Area

Demonstrated at
U.S. Department of Energy
Savannah River Site, Aiken SC
Pantex Plant, Amarillo TX
Nevada Test Site, NV
SLAPS Uranium Processing Site, St. Louis MO
Painesville FUSRAP Facility, Ohio
and
An Oil Refinery Site, Czechowice, Poland
USDI, three landfill sites, New Mexico
USDA, 20 former grain storage facilities, NE/KS
DoD, Tustin Marine Air Station, CA
Iowa Dept. of Natural Resources, former Marshalltown Plant

INNOVATIVE TECHNOLOGY
Summary Report

Purpose of this document

Innovative Technology Summary Reports are designed to provide potential users with the information they need to quickly determine if a technology would apply to a particular environmental management problem. They are also designed for readers who may recommend that a technology be considered by prospective users.

Each report describes a technology, system, or process that has been developed and tested with funding from DOE's Office of Science and Technology (OST). A report presents the full range of problems that a technology, system, or process will address and its advantages to the DOE cleanup in terms of system performance, cost, and cleanup effectiveness. Most reports include comparisons to baseline technologies as well as other competing technologies. Information about commercial availability and technology readiness for implementation is also included. Innovative Technology Summary Reports are intended to provide summary information. References for more detailed information are provided in an appendix.

Efforts have been made to provide key data describing the performance, cost, and regulatory acceptance of the technology. If this information was not available at the time of publication, the omission is noted.

All published Innovative Technology Summary Reports are available on the OST Web site at http://OST.em.doe.gov under "Publications."

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APPENDIX

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SECTION 1

SUMMARY

Technology Summary

Problem

In the DOE's Accelerated Clean-up Plan Cost Rollup by Category, over 1.34 billion dollars of the 9.7 billion dollar remedial action budget is allocated to remediation assessment studies. The baseline or traditional method of site characterization uses a phased approach consisting of multiple sampling events with most samples analyzed in the laboratory. Traditional site characterization procedures, conducted in a conservative regulatory environment, are usually effective but can be quite costly and time consuming.

How It Works

Expedited Site Characterization (ESC) has been developed, demonstrated, and deployed as a new time-saving, cost-effective approach for hazardous waste site investigations. ESC is an alternative approach that effectively shortens the length of the assessment period and may significantly reduce costs at many sites. It is not a specific technology or system but is a methodology for most effectively conducting a site characterization.

The principal elements of ESC are:

- a field investigation conducted by an integrated team of experienced professionals working in the field at the same time,
- analysis, integration and initial validation of the characterization data as they are obtained in the field,
- a dynamic work plan that enables the team to take advantage of new insights from recent data to adjust the work plan in the field.

The ESC methodology emphasizes the delineation of the hydrogeologic framework of the potentially contaminated site, followed by the delineation of the contaminant pathways and contaminant distribution, and the selection of the most effective measurement technologies. Explicit in the process is direct communication with regulators and stakeholders.

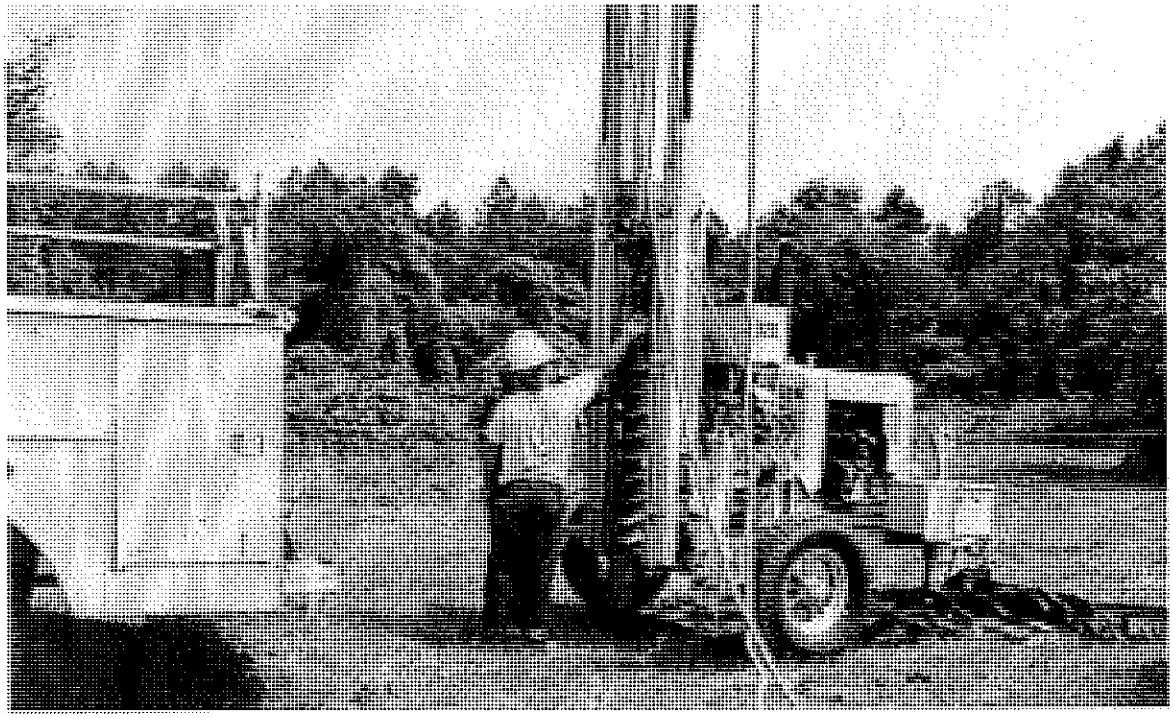

Figure 1. Immediate data analyses are completed using field mobile equipment as shown here at the Savannah River Site.

Potential Markets

Generally, the ESC methodology is most cost-effectively applied for:

- large-scale projects including
  - ◊ CERCLA (Comprehensive Environmental Response, Compensation and Liability Act, i.e., Superfund) remedial investigations (RI/FS)
  - ◊ RCRA (Resource Conservation and Recovery Act) facility investigations (RFI, CMS).
- other contaminated sites where the ESC process can be reasonably expected to reduce time and cost of site characterization when compared with traditional approaches.

Advantages over the Baseline

The advantages of ESC over traditional methods include:

- use of a wider variety of measurement methods
  - ◊ ESC investigations employ a diverse set of measurement techniques, with less reliance on traditional monitoring well data,
  - ◊ ESC investigations use more than one measurement to prove or validate each essential feature of the conceptual model,
  - ◊ ESC investigations employ innovative technologies where cost savings or data quality are improved.
- an improved rate of data integration; data are continuously analyzed and integrated into the conceptual model; the model evolves both during and between phases.
- a flexible, dynamic work plan that allows newly acquired data to improve the conceptual model, while impacting and optimizing subsequent characterization activities immediately (hours to days).
- potential cost savings are due to many factors
  - ◊ reduction in the number of data samples collected,
  - ◊ reduction in the number of monitoring wells installed,
  - ◊ reduction in the time required to complete assessment,
  - ◊ improved assessment accuracy, and
  - ◊ results that are more credible with regulators.

The target for DOE characterization cost savings in the 2006 Plan budget is $1.34 billion. If the Pantex ESC example documented in this report is representative, then its 50% savings translates into possible DOE complex-wide savings of $600-700 million through 2006.

Demonstration Summary

This report covers demonstrations that took place between 1989 and 1996.

- ESC methodology has been applied to a number of hazardous wastes sites within
  - ◊ the DOE complex (the Pantex Weapons Facility in Amarillo TX, the SLAPS Uranium Processing Site in St. Louis MO, the Savannah River Site in Aiken SC, the Central Nevada Test Area, the Painesville FUSRAP Site in Ohio),
  - ◊ at DoD facilities (Navy and Air Force),
  - ◊ at USDI (BLM) and USDA facilities,
  - ◊ and at commercial facilities in the U.S.and in Poland.
- ESC has been used to
  - ◊ delineate contaminant plumes,
  - ◊ verify hydrogeological site models,
  - ◊ delineate hydrologic systems under CERCLA RI, RCRA RFI, UMTRA, FUSRAP, and state regulatory programs at landfills, petroleum release sites, radioactively contaminated sites, gas manufacturing plants, and grain storage facilities.

- ESC projects have
  - ◊ included evaluation of pre-existing data and incorporation into expedited characterization efforts in the field,
  - ◊ generated technically defensible explanations of issues,
  - ◊ generated new types of data to assist with site model generation,
  - ◊ improved plume delineation and identified new aquitards,
  - ◊ characterized sites for rapid closure (no further action) saving significant money.

- DOE's CMST-CP funded development of an ASTM Guide for Expedited Site Characterization of Hazardous Waste Sites. The guide documents the implementation of ESC at DOE sites and is an excellent introduction to common sense, cost-effective characterization. This guide is available from ASTM, 1916 Race St., Philadelphia, PA 19103, 215 299 5480.

- ESC permitting has been accomplished on a case by case basis; several regulators in states and EPA regions where ESC has been applied have expressed willingness to discuss ESC with regulators in states where ESC is being proposed. ESC is being evaluated by the Interstate Technology and Regulatory Cooperation Working Group (ITRC) to expedite multi-state acceptance by regulators.

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Other
All published Innovative Technology Summary Reports are available at http://em-50.em.doe.gov. The Technology Management System, also available through the EM50 Web Site, provides information about OST programs, technologies, and problems. The OST reference # for Expedited Site Characterization is 77.

SECTION 2

TECHNOLOGY DESCRIPTION

Introduction/Background

Site characterization is an investigative process for developing an understanding of the extent and environmental impacts of contamination sufficient to assess the risk to humans and the environment. ESC is an alternative approach that shortens the assessment period and significantly reduces costs. It is not a specific technology or system but a methodology or approach.

- The ESC methodology emphasizes the delineation of the hydrogeologic framework of the potentially contaminated site, followed by use of that framework to guide the delineation of the contaminant pathways and contaminant distribution.
- ESC also emphasizes the selection of the most effective measurement technologies.
- The site understanding, or conceptual model, becomes the basis for determining the necessity of site remediation. Critical parameters for the design and optimization of the remedial system are also measured during site characterization.

Process Definition

Each site characterization is affected by unique aspects of the contaminated site, the regulatory perspective, and the capabilities of the characterization team. The ESC process has ten steps.

Step 1: Team Formation

A team of seasoned professionals is formed.

- The team is organized into a core technical team and project team. The core technical team consists of three to five experienced professionals who are knowledgeable of hydrologic, geologic, and contaminant chemistry systems. They plan, organize, and direct the investigation and are part of the assessment until it is completed. The core technical team leader is responsible for the overall conduct of the investigation. The actual measurements, data analysis, and support activities are accomplished by a larger project team. Project team members are part of the assessment only for as long as necessary to accomplish their specific activities.

- Members of the project team are selected from technical disciplines that are needed to analyze and integrate new data (for example, geology, geochemistry, geophysics, hydrology, computer science, contaminant transport, ground water modeling, risk analysis, regulatory compliance, health/safety, QA/QC, and analytical chemistry).

Step 2: Critical Evaluation of Existing Data and Development of an Initial Conceptual Model

The ESC team compiles and evaluates existing data to guide development of the initial conceptual model. Data inconsistencies and conflict are highlighted. A numeric quality level is assigned to all existing data. Some data are processed or reinterpreted if necessary. Data are integrated into an archive and referenced to the coordinate grid.

Step 3: Initial Site Visit: Meetings with Regulators and Site Owners

As a group, the core technical team visits the field site and walks the ground to meet with the site owner and regulators to discuss the ESC process and the essential issues the investigation should resolve.

- Operational, safety, security, and other site specific constraints relevant to the preparation of the work plan are identified.
- With the site owner and regulators, the ESC team determines essential data needed to address regulatory requirements.
- These discussions typically result in a definition of investigation objectives and identification of issues, for example, the list of analytes.

The site owner often arranges for the Core Technical Team to meet with the public and explain ESC.

Step 4: Initial Development of the Conceptual Model

An initial conceptual model that is consistent with available site data and information collected during the initial site visit and that addresses all of the essential features required for risk assessment and remedial action decision making is developed by the ESC team.

- The model is often a set of hypotheses describing the essential features of the site that control the system of pathways between the likely source of contamination and all potential receptors.

Step 5: Identification of Measurement Options

In the ESC process, all of the measurement techniques that will effectively test the model are identified. ESC uses a diverse set of measurement techniques that test each essential feature of the conceptual model. As ESC measurement data need to be analyzed within hours of being taken, analysis systems (like analytical labs) are usually brought to the field.

Step 6: Formulation of a Dynamic Work Plan

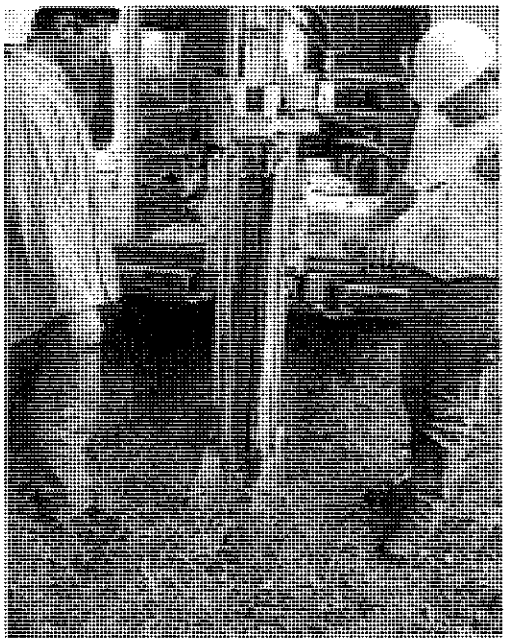
A dynamic work plan that describes the field investigation plan is developed.

- Dynamic workplans define an area and depth within which the ESC team can adjust measurement parameters without needing to seek additional regulatory approval.
- Every element of an ESC work plan, including data collection and analysis, QA/QC and measurement techniques, is sufficiently robust that the plan can be adjusted without initiating the lengthy process of a formal work plan change.
- The work plan may propose several different measurement and data analysis techniques and the approximate order in which the measurements will be made.
- An ESC investigation will favor techniques that yield analyzed data rapidly, over techniques that require weeks or months to obtain results.

Step 7: Phase I field investigation

ESC field investigations are short, intense, and productive, and typically require two phases. Timely support from site personnel, logistical support personnel, and the project team is essential, because each element of an ESC investigation is critically dependent on all the other elements.

- In the Phase 1 field investigation, the team returns as a group to the site after the initial site visit.
  - ◊ The main purpose of this investigation is to test the accuracy of the initial conceptual model with respect to the system of pathways that contamination could travel from known and potential sources.
  - ◊ Many simultaneous measurements are made and samples are split to maximize the information yield.
  - ◊ Data are analyzed, digitally archived, and integrated into the investigation record as rapidly as possible.
- While in the field the team follows this established procedure:
  - ◊ Results are predicted and recorded in lab books before any measurement is made.
  - ◊ Measurements are made.
  - ◊ Data are analyzed.
  - ◊ Data are integrated into the site coordinate system for comparison with other data and the conceptual model.
  - ◊ Conceptual model is modified based on measurement results.
  - ◊ Subsequent measurements are selected to best test the updated conceptual model.
- The process is repeated until the field investigation successfully meets the established objectives and the conceptual model accurately and convincingly describes all the pathways of concern to regulators and the site owner.
- Although the system of pathways is emphasized, the Phase I field investigation also includes all easily– obtainable measurements and sampling that can contribute to the investigation.
  - ◊ Surface contamination measurements are often taken in Phase I.
  - ◊ Between phases, the results of measurements that could not be quickly analyzed are incorporated into the conceptual model.



Step 8: Phase II field investigation and initial report

The Phase II field investigation uses the conceptual model predictions of the system of pathways and contaminant source locations developed in Phase I to locate the contaminant plume. As in the Phase I investigation, the dynamic work plan emphasizes flexibility.

Step 9: Risk Assessment

Employing appropriate risk methodologies, the proven conceptual model may be used to prepare a risk assessment of the site contamination

Step 10: Final report

The conceptual model and risk assessment are summarized in an appropriate report format and delivered to the site owner. The team supports the site owner in presenting the report to regulators and the public.

SECTION 3

PERFORMANCE

ESC was first developed by Argonne National Laboratory (ANL) personnel in 1989 to cost-effectively characterize several U. S. Bureau of Land Management landfills in New Mexico. ESC has been applied at many sites by the ANL team and by a team from Ames Laboratory. The following describes the various technology demonstrations/deployments.

Client: USDI/Bureau of Land Management
Site Type/Size/Depth: 3 landfills ranging in size from 650' x 800' to 1,000' x 2000'
Location: New Mexico
Date: 1989-1991
Contaminant: Metals, VOCs, SVOCs, petroleum products
Regulatory Setting: CERCLA RI/FS
Problem or Objectives: Initial data indicated that the migration of contaminants to ground or surface water was likely.
ESC Results: ESC showed that the contamination present at the landfill was not migrating deeper that the upper few meters of soil. All 3 landfills were closed with no remediation and no requirement for continued ground water monitoring at a cost of $300,000 less than projected.

Client: USDA/Commodity Credit Corporation (CCC)
Site Type/Size/Depth: 20 former grain storage facilities, 800 x 1000 feet up to 23 square miles
Location: Nebraska, Kansas
Date: Ongoing
Contaminants: Carbon tetrachloride, chloroform
Regulatory Setting: CERCLA RI/FS (2 sites from the National Priority List (NPL)), Safe Drinking Water Act (SDWA)
Problem or Objectives: Carbon tetrachloride contamination of drinking water supplies was potentially linked to CCC former operations.
ESC Results: ESC streamlined the RI/FS process and generated technically defensible data for rapid remedial action decision making for 1/5 to 1/10 cost and 1/30 time of conventional methods.

Client: DOE
Site Type/Size/Depth: Zone 12 Pantex Plant, 1 square mile
Location: Amarillo, TX/ EPA Region VI
Date: 1994-1995
Contaminant: Explosive metals, fuels, chlorinated hydrocarbons
Regulatory Setting: CERCLA RI and RCRA RFI
Problem or Objectives: Previous RI had not generated technically acceptable explanation for contaminant distribution, migration pathways and potential for cross-aquifer contaminant migration.
ESC Results: Re-evaluation, interpretation, and integration of existing (pre-ESC) databases allowed for a streamlined field investigation that generated technically defensible explanation of all issues. The cost impact of this study is discussed in detail in Section 5 of this report.

Client: DoD/Navy
Site Type/Size/Depth: Closing marine air station, 3 square miles
Location: Western US/Region IX
Date: Ongoing
Contaminant: Fuels, solvents, oils, paints, pesticides
Regulatory Setting: CERCLA RI/FS
Problem or Objectives: Previous RI had not defined aquifer systems (including flow, number of aquifers, etc.), migration pathways, sources, or contaminant distribution.
ESC Results: Phase I investigation delineated hydrologic systems, including flow, number of aquifers, isolation of aquifers, and migration pathways. Phase II presently being conducted by a private sector firm.

Client: DOD/Air Force
Site Type/Size/Depth: Air Force base, 1,300' x 2,600'
Location: Southwest Region VI
Date: Ongoing
Contaminant: Trichloroethylene (TCE), 1,2-dichloroethene, carbon tetrachloride
Regulatory Setting: CERCLA RI, RCRA RFI
Problem or Objectives: The rapid transfer of ESC approach to a federal agency and contractor for interim corrective action measures selection.
ESC Results: ESC investigation ongoing.

Client: IA Department of Natural Resources
Site Type/Size/Depth: Former gas manufacturing plant, 3 acres, 50'
Location: Marshalltown, IA, EPA Region VII
Date: 1994 - present
Contaminant: Sixteen polyaromatic hydrocarbons (PAH)
Regulatory Setting: State regulatory program
Problem or Objectives: DOE technology demonstration that highlighted immunoassay testing, geophysical methods, five polyaromatic hydrocarbon soil extraction methods, percussive conductivity logging (ISSTime).
ESC Results: ESC investigation ongoing.

Client: DOE
Site Type/Size/Depth: SLAPS Uranium Processing Site, 52 acres, 65'
Location: St. Louis, MO, EPA Region VII
Date: 1994
Contaminant: Uranium, thorium, radium, radon isotopes
Regulatory Setting: Uranium Mill Tailing Remediation Act (UMTRA)
Problem or Objectives: Delineate extent of radioactive contaminants in surface soils; evaluate pathways to and extent of karst aquifer beneath uranium-bearing waste piles; determine thickness of aquitard located between two aquifers.
ESC Results: Microgravity and EM surveys were completed to map the thickness of the aquitard and the extent of karsting in the aquifer; geochemical dating of two aquifers was completed. These results assisted with the conceptual model for fate and transport of contaminants from the upper to lower aquifer at this site.

Client: DOE
Site Type/Size/Depth: Savannah River Site, D-Area Oil Seepage Basin, 10 acres, 65'
Location: South Carolina, EPA Region IV and South Carolina Department of Health and Environmental Control
Date: 1994-1995
Contaminant: Trichloroethylene (TCE), tetrachloroethylene (PCE), vinyl chloride, a-BHC pesticide, Sb, Be, Mn and As metals
Regulatory Setting: CERCLA /RI, RCRA/ RFI
Problem or Objectives: Primary objectives were to determine hydrogeology of the site, contaminants of concern, to delineate extent of groundwater contamination; and to assess risk of soil/groundwater contamination.
ESC Results: Contaminant plume would have been missed by originally proposed monitoring well locations; geophysical methods (GPR, EM, borehole logging, percussive electrical conductivity logging, and cone penetrometer) were used to identify two shallow aquitards that control the flow of the 13 contaminants of concern (VOCs, pesticides, and metals). The assessment/remediation schedule was cut by seven months as a result of this project.

Client: Polish government/DOE
Site Type/Size/Depth: Oil refinery, 15 acres, 60'
Location: Czechowice, Poland
Date: 1996
Contaminant: VOC's, 5 PAHs, RCRA metals
Regulatory Setting: Polish action levels
Problem or Objectives: Demonstration of site characterization technologies.
ESC Results: Demonstrated use of laser-induced fluorescence and Hg lamp with a cone penetrometer, immunoassay testing, percussive conductivity logging, horizontal drilling and sampling.

Client: Nevada Field Office/ Off Sites Program/DOE
Site Type/Size/Depth: Three underground nuclear test sites, 50 acres, 20'
Location: Central Nevada Test Area, Nevada
Date: 1997
Contaminant: Diesel/Motor Oil TPH, Total and hexavalent chromium
Regulatory Setting: Nevada DEP preliminary action levels
Problem or Objectives: Characterize surface and subsurface drilling mud pits and shaker pad debris areas with geophysical and percussive probing techniques and two mobile labs.
ESC Results: Found ten new areas of concern and one new COC; mapped distribution of all COCs at all sites in 22 day field effort.

Client: DOE/FUSRAP
Site Type/Size/Depth: 52 acres of potentially radioisotope contaminated surface from residual contamination on barrels shipped from Ontario Site.
Location: Painesville, Ohio
Date: 1997
Contaminant: Residues from extraction of uranium from pitchblende.
Regulatory Setting: State of Ohio, FUSRAP follows CERCLA procedures
Problem or Objectives: Characterize extent and type of contamination.
ESC Results: 52 acre site was successfully characterized in four weeks of field measurements.

SECTION 4

TECHNOLOGY APPLICABILITY AND ALTERNATIVE TECHNOLOGIES

Technology Applicability

The ESC approach is most appropriately used at the following types of sites:

- larger-scale projects, including CERCLA remedial investigations (RI/FS), and RCRA facility investigations (RFI, CMS).
- other contaminated sites where the ESC process can be reasonably expected to reduce time and cost of site characterization when compared with traditional approaches.

Generally, the ESC methodology may not be applicable at

- small petroleum release sites,
- Phase I real estate property transactions,
- sites where the contamination is limited to the near-surface and there is little likelihood for migration of contaminants into the ground water,
- sites where the cost of remedial action is less than the cost of characterization,
- sites where regulators may require long-term statistical monitoring of the site; a traditional approach involving grid-spaced monitoring wells may be more suitable,
- sites where existing statutes or regulations prohibit use of essential features of ESC.

Competing Technologies

Expedited Site Characterization is not the only streamlined characterization methodology currently in use. Scientists from industry, academia, and other federal laboratories have developed similar approaches.

- Baseline or traditional site characterization techniques:
  - ◊ Typically use a phased approach of data collection on a statistical basis or grid to develop a conceptual model of a site.
  - ◊ Each phase focuses on locating the contaminant plumes.
  - ◊ Each phase of the investigation follows a rigid pre-approved work plan and data are collected frequently by different subcontractors.
  - ◊ Data are analyzed and interpreted at the completion of each phase of work.

- The Observational Method is an investigative process developed and used in the 1920's to 1950's for geotechnical characterization of soils and geotechnical engineering design.
  - ◊ Characterization, design, and construction proceed hand-in-hand; as construction proceeds, observed changes in the soil system are used to modify the design.
  - ◊ A critical element of the method is an early assessment of most probable conditions.
  - ◊ Application to remedial investigation or characterization stage focuses on determination of general site conditions and identification of most probable conditions and reasonable deviations as the basis for a flexible approach to remediation design.

- Adaptive Sampling and Analysis was developed and used by DoD to characterize to determine the nature, extent and level of contamination present at a site.
  - ◊ This approach uses chemical analytical methods and on-site decision-making in the context of geostatistical models to guide sampling.
  - ◊ This approach is most applicable to characterization of near surface soil contamination.

- Data Quality Objectives (DQO) are a quality-management tool developed by the U.S. EPA, using a statistical approach to facilitate planning of environmental data collection.
  - ◊ This approach focuses on optimizing data collection and analysis so that the data are collected only to address the appropriate problems.

◊ This approach differs from ESC in that

- An optimal fixed number of measurements in a statistical framework is used.
- Information from the first set of measurements is usually not used to refine the next set of measurements.
- Chemical measurement of the contaminants of concern is the focus in contrast to ESC where an integrated understanding of the geohydrologic framework is determined prior to plume delineation.

- SACM and SAFER Processes were developed by the U.S. EPA (Superfund Accelerated Cleanup Model) and the U.S. DOE (Streamlined Approach for Environmental Restoration). They are complimentary approaches for speeding up CERCLA RI/FS projects.

  ◊ SAFER integrates DQO with the observational method.

  ◊ ESC can be easily incorporated into the characterization portion of SAFER to provide a robust, integrated geohydrologic model of the site in a reduced time.

  ◊ The use of ESC in SAFER and SACM would de-emphasize contingency planning due to the development of a robust and accurate site model during characterization.

Patents Commercialization/Sponsor

The ESC approach was originally developed by ANL, primarily for the USDA CCC for the characterization of former grain storage facilities. DOE through the CMST-CP funded development of an ASTM Guide titled "Guide for Expedited Site Characterization of Hazardous Waste Site" that is now provisional PS 85-96. The guide documents the implementation of ESC at DOE sites, and is an excellent introduction to common sense, cost-effective characterization at DOE sites. ANL and DOE have a trademark (QuickSite) on the application of ANL's ESC.

SECTION 5

COST

Introduction

Information in this section is summarized from a report prepared by Los Alamos National Laboratory (LANL) from a demonstration of ESC sponsored by DOE at the Zone 12 Pantex Plant in Texas (LA-UR97-2215). LANL was tasked to perform the cost analyses as an independent team for the DOE Office of Science and Technology. As part of this effort, LANL re-evaluated information presented in an earlier report evaluating the cost effectiveness of the application of ESC at DOE's Pantex Plant [LA-UR 96-2945). Although there are significant differences in the cost scenarios and conclusions presented by the authors in each of the studies, both studies showed a positive cost benefit from the application of ESC.

The main challenge in providing a robust cost analysis of ESC or any other technology is to establish a realistic cost scenario for both the baseline and innovative technology. For ESC, this is especially difficult, because the published case studies are speculative as to what outcomes would have been produced had the other approach been used.

The cost impact of ESC varies on a site-by-site basis. At some sites, the application of ESC will result in major cost savings relative to baseline methods, and at others, the cost of ESC will be comparable to baseline methods. The two major cost components of a completed site characterization study are costs associated with (1) drilling, sample collection, and sample analysis, and (2) labor.

Cost Analysis: A Case Study at DOE's Pantex Plant: Zone 12

At the DOE Pantex Plant in Texas, the distribution of contaminants and pathways for contaminant migration are complicated by the complex hydrogeology. The geological characteristics of the site include a perched aquifer at a depth of 250 feet and the 400-foot-thick Ogallala aquifer at a 450-foot depth. Prior to the ESC investigation, the U.S. Army Corps of Engineers (COE) had spent 2 years and $2.1 million completing the first of a proposed four-phase comprehensive traditional characterization effort, that was scheduled to last 5 years and cost $11.9 million.

Phase I of the COE effort included the drilling of 11 wells; the proposed additional phases called for installation of 43 additional wells. In contrast, the ESC investigation resulted in only four soil borings, one of which was later turned into a well, and nine cone penetrometer pushes. After the ESC team left the site, an additional 10 borings were made and 5 monitoring wells were installed to determine precisely what remediation efforts would be required to treat the contaminant plume.

Table 1 compares the number of penetrations estimated for completion of site characterization at Pantex. This table does not include the 11 monitoring wells drilled by the COE during Phase I. If the 11 Phase I wells are included, total penetrations for both methods would increase by 11. The main significance of this table is that the ESC approach resulted in installation of significantly fewer monitoring wells.

Table 1. Post-phase I Penetrations at the Pantex Plant

Type of Penetration	ESC (Actual)	Traditional (Planned)
Borings	13	0
CPT pushes	9	0
Wells (perched aquifer)	5	39
Wells (Ogallala)	1	4

Table 2 (below) shows a comparison in costs to characterize the Pantex site using either ESC or the traditional baseline method. The baseline assumed for this scenario includes the cost of the 11 wells done during Phase 1 characterization and an additional 43 wells that were proposed in the later phases of characterization.

For the ESC scenario, six Phase I wells were estimated and added to the actual ESC Phase II where only four soil borings, one of which was later turned into a well, and nine cone penetrometer pushes were completed. The ESC costs also include the additional 10 borings and the 5 monitoring wells that were installed after the ESC team left the site.

Table 2. Characterization Costs at the Pantex Plant

	ESC	Traditional
Preparation costs	$334,000	$150,000
Cone penetrometer pushes (CPT)	9	0
CPT total cost	$25,000	$0
Phase I penetrations	6	11
Other penetrations	19	43
Total penetrations	25	54
Average cost per penetration	$170,000	$192,000
ESC Phase I cost	$461,000	—
Overall penetration costs	$4.3 million	$10.4 million
Other costs	—	$1.4 million
Total Costs	$5.1 million	$11.9 million

Preparation costs for the two methods are different, because the ESC approach requires a significant analytical effort by the ESC team to prepare a conceptual model before visiting the site. This effort includes evaluation of existing data, identification of data inconsistencies, data reprocessing and preparation of a data archive referenced to the coordinate grid.

The next set of costs includes drilling and CPT costs incurred in the ESC investigation. The ESC team made 9 CPT pushes at a total cost of $25,000. Other penetrations by the ESC team include the 19 actual wells and soil borings and for the baseline method, the 43 proposed but never implemented wells. The cost per penetration for each approach are calculated from the actual costs incurred at the site, including labor for both the contractors and the science teams. The ESC costs per penetration are slightly lower because ESC made 13 soil borings but installed only 6 monitoring wells, while the traditional approach called for installation of 54 wells. The other cost data represents nonpenetration related costs incurred by the traditional approach including staff time.

Conclusions and Comments

- This hypothetical comparison predicts a 57% savings in cost and a 40% reduction in time using ESC as compared to the traditional baseline method proposed at the Pantex Plant.

The above scenario represents a conservative estimate of cost savings that can be attributed to the ESC methodology in a specific DOE remediation case. The largest component of the cost savings resulted from a reduction in the number of subsurface penetrations and the number of samples collected for analysis.

- ESC Projects summarized in Section 3 of this report generally demonstrated that the ESC investigation almost always results in a cost savings in the drilling and sampling category. Additional long-term savings in ground water monitoring and analysis costs may be realized due to the reduced number of monitoring wells installed.

- The LANL reports do not show that the application of ESC provides a significant cost advantage over baseline methods in the labor category. However, this may not be a correct assumption for all ESC investigations. An average ESC team member, as defined is quite senior and higher paid than a traditional site characterization scientist but due to nature of the ESC process is employed for a shorter time.

- LANL determined that a significant cost savings from the implementation of ESC may result from a reduction in time to complete the characterization, however, the cost savings from these factors is difficult to quantify in a rigorous manner.

  ◊ In DOE's Pantex Plant example, ESC delivers results in roughly half the time of its counterpart, two years ahead of the traditional method's schedule.

  ◊ Generally, the ability to start remediation work sooner will result in an earlier remediation remedy. However, it it very difficult to quantify cost savings. In present value terms, this shortened budget profile can even be a negative to the cost savings calculations as earlier expenditures cost the government more in present-value dollars.

  ◊ Regulatory policies, new technological approaches, and other factors will change over time with uncertain effects either increasing or decreasing future cleanup requirements and subsequent budgetary expenditures.

- A final advantage often projected for ESC is the improved characterization outcome. Better characterizations described in a number of the ESC projects have resulted in cleanups not needing to be done, and therefore, in major overall program cost reductions.

SECTION 6

REGULATORY/POLICY ISSUES

Regulatory Considerations

- Because ESC methodology explicitly includes regulatory interaction at the initiation of the project, concerns and issues important to the regulator will be addressed early in the process thus facilitating regulatory approval.
- Because regulatory agents are not legally bound by the recommendations of the ESC (or any other characterization) approach, time must be taken to be sure the regulators fully understand both the process and techniques to be employed.
- Normal drilling and sampling activities require that investigation derived wastes (IDW) (drilling fluids, cuttings, and equipment decontamination fluids) be handled according to RCRA. Emphasis on the use of non-intrusive methods and reduction of the number of subsurface penetrations should minimize amounts of IDW that are produced.

Safety, Risks, Benefits and Community Reaction

Worker Safety

- The risk to workers is minimized as the ESC approach incorporates use of non-invasive and minimally invasive techniques by using direct-push soil and ground water sampling equipment whenever practical. This results in a significant reduction in worker exposure as drill cuttings and drilling fluids are not used.
- The risk to workers is minimized because of reduced number of penetrations.
- The risk to workers is minimized due the reduction in the length of the remedial investigation.

Community Reaction

- Community involvement is explicit in the first stages of ESC. The community relations plan improves accountability to the public by helping the ESC project team identify the principal concerns of the stakeholders. The may help the ESC project team collect and present data that is responsive to stakeholders' needs.
- The emphasis on development and refinement of a clear conceptual model should improve community understanding and acceptance of the characterization process.
- The earlier initiation of remedial processes might lead to less community exposure to toxic compounds; this should be well received by the community.

SECTION 7

LESSONS LEARNED

- A potential challenge for implementation of ESC is contractor bidding. Because ESC is a flexible tool, it is a challenge to prepare requests for proposals and contracts that can be managed effectively. It may be appropriate to prepare contracts on a per-penetration basis for each technique. Alternatively, minimum sampling requirements could be agreed upon with the regulatory agency and the contractors could bid on the minimum requirements with a negotiated additional per-well or per-penetration cost.

- The ESC process avoids a presumption that remedial action is required. However, remediation engineering experience should be incorporated into the process as soon as the need for remedial action is recognized.

- The selection of team members with appropriate qualifications, experience, and capabilities is critical to successful implementation of ESC. The maintenance of the same team from project initiation to closure is also vital but is often difficult to achieve at DOE sites due to the demands on senior technical personnel.

- The ESC process at a typical site requires single mobilizations of 2 to 4 weeks for Phase I, and a mobilization of similar length for Phase II. Various site specific factors including stakeholder relationships, site area and access, site geology and hydrology, and contaminant characteristics will affect the actual time and cost of an investigation.

APPENDIX A

REFERENCES

1. DOE's Ten Year Plan (TYP) Cost Rollup by Category, Report ID D03, unpublished summary (March 1997).

2. "Guide for Expedited Site Characterization of Hazardous Waste Contaminated Sites," ASTM Committee D-18, D18.01.01 Task Group, Draft No: 6.0 (February 24, 1997).

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5. Burton, J. C. et al., "Expedited Site Characterization: A Rapid, Cost-Effective Process for Preremedial Site Characterization", Superfund XIV, Vol. II, Hazardous Materials Research and Control Institute, Greenbelt, MD, 1993, pp. 809-826.

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Bob Taft
Governor

Re: Henry County
Campbell's Soup Company
OHD 005419171
Hazardous Waste

April 3, 2001

Mr. Michael Maringer
Manager, Service and Utilities
Campbell's Soup Company
East Maumee Avenue
Napoleon, Ohio 43545

Dear Mr. Maringer:

On October 1, 2000, this office received a report from Campbell's Soup Company (Campbell's) entitled RCRA Site Closure Investigation Work Plan: Former Holding Pit Area. The Ohio Environmental Protection Agency (Ohio EPA) has reviewed the document and offers the following comments:

1. Campbell's has not identified the full horizontal or vertical range of contamination. The sampling points provided to Ohio EPA in Figure 3 are acceptable, although more locations may be necessary if contamination is widespread. Campbell's is directed to sections 3.14 and 3.14.1 of Ohio EPA's Closure Plan Review Guidance for RCRA Facilities, Part I. Of particular importance is the need to sample vertically until 2 to 4 consecutive samples in the vertical direction and 2 samples in the horizontal direction show that concentrations of constituents are below their respective method detection limits (MDLs). Also, vertical sampling should extend at least 3 to 5 feet beyond the last point where a contaminant's concentration was above its detection limit.

2. The closure plan must state that the former sludge-holding pit was used from 1981 through 1983.

3. The closure plan must provide an estimate of the maximum volume of hazardous waste sludge present in the pit during its operation.

4. The closure plan must state that the waste codes associated with the wastes stored in the pit. Ohio EPA believes the appropriate codes to be D001, F003, and F005 based on sampling results, the materials' use as solvents, and MSDS sheets for the solvents provided to Ohio EPA by Campbell's.

5. The closure plan must specify methods for the removal of waste and contaminated media. Information pertaining to staging, loading, and transportation of this material must also be included, as well as the land disposal restrictions (LDR) status of each waste stream relative to treatment and disposal. Campbell's should consult section 3.6 of Ohio EPA's Closure Plan Review Guidance for RCRA Facilities, Part I for more detail.

6. Campbell's must include a description of how sampling equipment and reusable equipment (such as earth movers) will be decontaminated.

7. Campbell's must provide an estimate of how waste material generated from decontamination will be managed. Campbell's must also supply an estimate of the volume of waste material generated by decontamination efforts in the closure plan.

8. Campbell's may use a mobile laboratory for sample screening purposes only. The mobile laboratory should not be used for confirmation sampling or risk assessment purposes.

9. Campbell's closure plan must state that organic constituents must be below method detection limits in order to determine the full extent of contamination.

10. Campbell's closure plan must describe each step in removing waste and contaminated soil from the property. Campbell's should consult section 3.15 of Ohio EPA's Closure Plan Review Guidance for RCRA Facilities, Part I for more information on this subject.

11. Campbell's closure schedule must begin at the point of the director's approval and should be in the form of a milestone chart. The schedule should contain at least dates for soil removal, dates when a professional engineer will be present, dates for backfilling of soil, etc.

12. The closure plan must state that the Ohio EPA inspector will be notified at least 5 days in advance of all critical activities relating to the closure. These activities would include: initial day field activities begin, sampling of soils or ground water, and removal activities.

13. Campbell's closure certification must contain the exact wording found in Ohio Administrative Code rule 3745-50-42(D). The certification document must contain at least the information listed in section 3.18 of Ohio EPA's Closure Plan Review Guidance for RCRA Facilities, Part I.

This review should not be construed to constitute a complete review of Campbell's closure plan for the former holding pit area. The plan will be addressed in detail in future correspondence. This review did not include joint review by Ohio EPA's Division of Drinking and Ground Waters. If you have any questions, feel free to contact me at (419) 373-3070.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/csr

pc: Dr. Osman Aly, Campbell's Soup Company
Jeremy Carroll, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
John Weaver, DDAGW, NWDO
NWDO File

Campbell's
3/8/01

General

Description of Facility

Map of Facility

Description of Hazardous Waste Management Units to be Closed

Detailed Drawing of Unit(s) to be Closed

List of Hazardous Wastes

Removal of Hazardous Wastes

Schedule for Closure

Other Permits

Air Emissions and Wastewater

Personnel Health and Saftety

Decontamination Efforts

Closure Strategy/Remediation Standards for Soil (Including Ground Water)

Naturally Occuring Elements

Alternative A: Comparison to Background Conditions

Alternative B: Comparison to Generic Remediation Standards

Closures Involving Characteristic Wastes Only

Compounds Not Naturally Occuring

Determination of the Number of Samples

Risk-Based Remediation Standards

Sampling Plan and Analytical Procedures

Sampling Grid Calculations

Description of Removal Efforts and Treatment Processes

Specifics for Waste-In-Place Closures

Final Cover System Construction and Testing Requirments

Certification

Status of Facility After Closure

Cost Estimates for Closure and Post-Closure

General

Purpose and Scope

The purpose of this work plan is to outline the tasks required to close a former holding pit area for the Campbell Soup Company Facility in Napoleon, Ohio. The Ohio EPA considers this former holding pit to be an unpermitted TSDF unit, and has issued an Order to properly close this unit in accordance with OAC Rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20.

Description of Facility

Site Description

The Campbell Soup Company Napoleon facility is located on the south side of East Maumee Avenue, Napoleon, Henry County, Ohio. The facility is located at the southeast edge of Napoleon, on the south side of the Maumee River (Figure 1). The former sludge-holding pit, located in the area identified in Figure 2, was the subject of this investigation.

The facility is involved with the processing, packaging, and distribution of food goods. The facility occupies _____ acres. _____ buildings are located on site, with the following characteristics:

Manufacturing	_____ Sq.Ft.
Waste Water Treatment Plant	_____ Sq. Ft.
Storage	
etc.	

The wastes associated with the former holding pit were generated during the preparation process for lining the insides of metal cans for soup and other food products. Solvents were used to prepare the inside of metal cans and containers for painting. Prior to using the former holding pit, spent solvent from the former can manufacturing operations was stored in 55-gallon drums and eventually used as a boiler fuel supplement (Boiler and Industrial Furnace 'BIF' Small Quantity Burner Exemption). Over time, solids accumulated in the drums, making handling of the spent solvents and drums difficult. To alleviate the solids problem, a temporary holding pit was constructed to receive and dry solids prior to off-site disposal. The pit was constructed atop an elevated area consisting of fill from other parts of the facility. Locally obtained clay was used to

construct containment dykes and to line the pit. The clay was compacted to reduce its permeability. The overall dimensions of the holding pit were approximately 20 feet wide by 35 feet long, and 2 ½ feet deep.

Semi-solid residues from the solvent drums were placed in the former holding pit and mixed with sand to reduce the moisture content of the material prior to off-site disposal. This practice was discontinued and the partially filled pits were decommissioned in 1983. A local contractor excavated the dykes and hauled the material to the Evergreen Landfill for disposal. The excavated area was filled with an additional 4- to 5-feet of new sand and natural soil fill material.

The earthen dikes were a one-time construction to remove semi-liquid solids from the drums. The practice was discontinued in 1983 with the excavation of the dikes. Because the solids and sludge materials temporarily placed in the holding pit were potentially exposed to volatile organic compounds (VOCs), a limited subsurface soil investigation was performed at the former holding pit area.

The results of the subsurface investigations were documented in the HSI GeoTrans, Inc. report entitled, "Limited Subsurface Soil Investigation", dated February 16, 2000 (previous investigation). The principle finding of the limited subsurface investigation is that VOCs do exist in the subsurface soils. This report was submitted to the Ohio EPA for review.

Map of Facility

A showing the location of the facility and its relationship to other local landmarks is presented as Figure 1. A detailed facility map, produced from an aerial photograph, is provided as Figure 2. Figure 2 identifies the location of the former holding pit within the facility.

Description of Hazardous Waste Management Units to be Closed

Site Surface Conditions

The former holding pit was constructed atop a mound created from fill soils transported from other grading or excavation activities at the facility. The pit was decommissioned and the dykes leveled prior to adding an additional 4 feet of new fill material over the former pit location. The elevated mound upon which the pit was located is currently 15 to 20 feet above natural grade.

Therefore, the former holding pit, while active, was approximately 11 to 16 feet above natural grade.

The current area where the former pit area was located is currently vacant and partially grass-covered. Several trees are located near the margins of the elevated fill area beyond the limits of the former holding pit.

Site Geology

Geoprobe$_{TM}$ borings completed in the former holding pit area during the previous investigation primarily identified the lithology as fill with varying amounts of clay till, silt and some sand. Other soil borings advanced by Campbell Soup Company in other parts of the facility reportedly encountered stiff clay at 4 feet below the natural grade. This clay is reportedly at least 10 feet in thickness. The high clay content of the local sediments is consistent with the former flood plain and glacial lacustrine deposits that characterize this part of Henry County. The bedrock located beneath the clay-rich surfical deposits is comprised of Devonian Aged shale and carbonates. The local depth to bedrock has not yet been determined.

Site Hydrogeology

The depth to groundwater at the site was not determined during the previous limited soil investigation. However, publications available through the Ohio State University Extension program indicate that groundwater in Henry County is obtained primarily from a carbonate aquifer located beneath 40 to 85 feet of glacial drift. The City of Napoleon uses surface water obtained from the Maumee River as its public water supply source.

Nature and Extent of Impacts in Soil

Soil screening using a photoionization detector (PID) identified organic vapors in soil under the former holding pit, and follow-up sampling verified the presence of several specific volatile Organic Compounds (VOCs)[1]. The following compounds were identified above the laboratory method PQLs during the previous investigation: acetone, ethyl benzene, MEK, MIBK, naphthalene, and xylene. Toluene and 1,4-dichlorobenzene were also detected at concentrations below the laboratory method PQLs. The highest concentrations of VOCs were reported from 6 to 9 feet below surface grade (bsg). The photoionization detector (PID) identified organic vapors between about 2 and 9 feet bsg. The approximate horizontal extent of the contaminated area is

[1] Limited Subsurface Soil Investigation, Former Holding Pit Area, February 16, 2000, HSI GeoTrans

approximately 60 by 60 feet. The vertical distribution and the horizontal extent of the contaminated area to the northwest was not fully determined during the previous investigation.

Site Conceptual Model

The native soil under the area of investigation consists primarily of stiff clay and sandy clay deposits. The area under the former holding pit consists of fill materials imported from other locations in the facility, and is elevated above natural grade. The former holding pit was excavated into this non-native fill, and used for approximately 2 years to temporarily hold semi-solid wastes prior to off-site disposal. Sand was mixed with the sludge to decrease the moisture content prior to disposal. When the pit was abandoned, the contents and clay dykes and liner were removed, and the pit side-walls pushed into the pit bottom. The area was re-graded and approximately four feet of fill placed over the former pit area. Some of the mixing sand may have been regraded into the fill, possibly producing thin and isolated soil layers with higher relative permeability. Additional fill has been placed over the former holding pit area since the pit was demolished.

Based on conversations with plant personnel and the soil profile observed during the previous limited soil investigation, the area formerly occupied by the holding pit has the following general lithologic profile:

- From 0 to 4 feet below grade – more recent fill material consisting of clay, cinder, and construction debris.
- From 4 feet to 6 feet below grade – mixed materials consisting of the former collapsed pit berms and sand used for mixing.

- From 6 feet to about 15 feet below grade - older (pre-holding pit) fill material consisting of clay with some sand or silt and some cinders.
- From about 15 feet to more than 20 feet below grade - native clay and fine textured sediments

A schematic cross sectional representation of the former holding pit is provided as Appendix B. Based on this generalized lithologic description and cross sectional profile, it is expected that chemical concentrations associated with the materials stored in the former holding pit will occur at the highest concentrations in the horizon associated with the bottom of the former clay pit, or at 6 to 8 feet below the current ground surface. This horizon contains the most sand and may be most permeable. Concentrations should decrease with depth, depending on the effectiveness of

the clay liner and clay content of the underlying fill. The underlying clay-rich native soil should act as a barrier to continued vertical migration. Some leakage through the clay liner could have occurred during the two years of pit activity if the clay liner possessed inhomogeneities, fissures or other structural weaknesses, or if the clay's permeability was affected by chemical interactions.

Local Occurrence of Groundwater

Groundwater was not encountered in any boring completed in the preliminary soil investigation. Borings were advanced to a depth of 12 feet below grade with no observed soil saturation. Any moisture observed in soils is due to transient water, as the borings were generally too shallow to extend below the natural grade.

Information related to groundwater under the facility is not readily available. The Henry County Health Department was contacted to obtain general information relating to local groundwater availability. Few water users obtain water from groundwater resources in the area. Most water supply systems obtain surface water from the Maumee River. Private wells may be present beyond the limits of the Napoleon water supply distribution system. Additional file review and record acquisition efforts are required to further evaluate the water bearing formations, the depth to groundwater, the direction of groundwater movement, and the potential for groundwater to be affected by the soil conditions under the former pit area.

The potential for groundwater impact will depend on the penetration depth of infiltrating chemicals. If the vertical extent of contamination is limited to soil above natural grade, then groundwater cannot be affected and groundwater occurrence is irrelevant. If soil contaminants extend into the natural soils below natural grade, then additional shallow hydrogeological information will be required.

Vertical and Horizontal Extent of VOCs in the Area of Impact

During the limited subsurface soil investigation, soil samples were screened for organic vapors using a PID, and select soil samples were collected and analyzed in a laboratory for VOCs. VOC samples were obtained from a uniform depth of approximately 10 feet in all borings, and from approximately 6 feet in several borings with high relative concentrations. This work was appropriate for identifying whether an environmental issue existed, what concentrations were present, and for estimating the approximate volume of affected soil. However, it did not satisfy the criteria for delineating soil and groundwater conditions as part of a RCRA closure investigation.

To adequately characterize the soil contamination, additional soil samples need to be collected. PID data is useful for screening soil samples, but is not an acceptable method for conducting a RCRA closure investigation. The sample boring grid spacing was satisfactory, but the vertical distribution of VOCs in each boring was not sufficiently evaluated. In addition, horizontal delineation was not completed to the north and west of the main grid. Therefore, additional soil samples must be collected from various depth intervals in and around the former holding pit to characterize the soil contamination and determine the vertical and horizontal extent of VOCs under and around the former holding pit.

Occurrence of SVOCs in the Area of Impact

The Ohio EPA requested that the soil under the former holding pit be evaluated for semi-volatile organic compounds (SVOCs). SVOCs are not expected to be a major constituent of the wastes stored temporarily in the former holding pit – however, the occurrence of naphthalene suggests that SVOC evaluation may be warranted. Additional soil samples need to be collected throughout the sampling area to determine whether SVOCs are present, and whether they will be a factor in determining future remediation strategies or action plans.

Detailed Drawing of Unit(s) to be Closed

Figure ____ presents the estimated location of the former holding pit. This location is based on the recollection of facility personnel and on analytical data obtained from the Limited Subsurface Soil Investigation.

List of Hazardous Wastes

Chemicals of Concern

The materials stored in the former holding pit generally were associated with wastes recovered from the enamel coating process for the inside of food containers. According to the Material Safety Data Sheets (MSDS) provided for these enamels (copies submitted to OEPA on April 20, 2000), the chemical constituents that may have been present in the waste materials stored in the holding pit include the following:

Alcohols	- n-butanol
Ethers	- diethyl glycol monobutyl ether - ethylene glycol monobutyl ether

- glycol ether
- propylene glycol methyl ether

Ketones
- cyclohexanone
- 2-butanone (MEK)
- methyl isobutyl ketone (MIBK)

Formaldehyde

Xylenes

Chemicals that were actually detected in soils under the former holding pit during the limited soil investigation include the following:

Acetone

2-Butenone (MEK)

1,4-Dichlorobenzene (at concentrations below the practical quantification limit (PQL))

Ethyl benzene

4-methyl-2-pentanone (MIBK)

Naphthalene

Toluene (at concentrations below the PQL)

Xylenes

Although there is no indication that semi-volatile organic compounds (SVOCs) were constituents of the materials stored in the former holding pit, the Ohio EPA has requested that their presence be evaluated at this site. The occurrence of naphthalene in soil samples indicates that simple polynuclear aromatic compounds are present.

Removal of Hazardous Wastes

Equipment and protocol
Staging, loading and transportation
Storage, treatment, and disposal
Land Disposal Restrictions (LDRs) of each waste stream

Type of disposal facility – waste manifests

Schedule for Closure

The following schedule is proposed for this scope of work:

Activity	Days from Receipt of OEPA Approval
Complete Site Health & Safety Plan	15
Complete field sampling	45
Evaluate data	60
Submit Investigation Report	75

Add waster removal, sampling, soil removal, engineer inspection/certification, backfill, etc.

Other Permits

Air Emissions and Wastewater

Any groundwater > on site WWTP. Air not an issue.

Personnel Health and Safety

Prior to initiating field activities, a Site Health & Safety Plan will be prepared in accordance with OSHA, 29 CFR 1910.120. The Site Health & Safety plan will be provided to any subcontractor involved in the on-site implementation of this work plan. An on-site meeting will be held with contractors prior to initiating field activities to ensure they understand the potential hazards associated with the implementation of this work plan.

The Health & Safety plan document will include the following information:

- Key personnel and responsibilities
- Training and medical Surveillance Requirements
- Site Description
- Work Objectives
- Hazard evaluation
- Air monitoring
- Personal protective equipment
- Decontamination and site control procedures
- Residuals management
- Emergency information and contacts
- Contingency plan for emergencies
- Spill containment procedures, and
- Confined space entry procedures

Decontamination Efforts

Steam clean big stuff, liquinox and rinse snall tools, collect water and go to WWTP?

Closure Strategy/Remediation Standards for Soil (Including Ground Water)

Determine the Local Occurrence of Groundwater

The local occurrence of groundwater will be determined by obtaining and reviewing readily available hydrogeological references and reports, geological references and reports, and other documents available through the Ohio EPA, Henry County, academic institutions, and other sources.

Local area well records will be obtained from the Ohio EPA and the Henry County Health Department to evaluate the location of water supply wells, the formations supplying water to wells, the depth to groundwater, and if possible, the general direction of groundwater flow.

If the soil probes indicate that soil contamination is limited to the fill material, and does not extend below the natural grade level, then no additional groundwater investigation will be required. If the soil borings extend below natural grade, then soil borings will be observed for 15

to 30 minutes to determine whether water enters the boring. In this event, a sample of the groundwater will be collected and additional groundwater investigation activities will be necessary.

Determine the Vertical and Horizontal Extent of VOCs in Soil Under and Surrounding the Former Holding Pit

Approximately twenty-two Geoprobe$_{TM}$ soil borings will be advanced in and around the area previously investigated during the limited subsurface soil investigation (Figure3). Samples will be collected from these borings from depths of approximately 3, 6, and 12 feet below grade to evaluate the vertical distribution of VOCs in and around the known affected area. An additional deeper sample will be collected from each boring at depths of approximately 14 feet and held at the laboratory for later evaluation, pending the results of the 12-foot sample analysis. Samples will not be collected from depths shallower than 3 feet because this soil consists of fill material which post dates the demolition and re-grading of the former holding pit.

Determine Whether SVOCs are Present in Soil Under the Former Holding Pit

To address the Ohio EPA request for evaluating SVOCs in soil, samples will be collected from the 3, 6 and 12 foot intervals at each boring indicated in Figure 3. A sample will also be collected

from the 14 foot depth interval and held for possible later evaluation. These samples will be analyzed for semi-volatile aromatic compounds; specifically the polynuclear aromatic compounds (PNAs).

Naturally Occuring Elements

Alternative A: Comparison to Background Conditions

Alternative B: Comparison to Generic Remediation Standards

Closures Involving Characteristic Wastes Only

Compounds Not Naturally Occuring

Determination of the Number of Samples

(BACKGROUND AND CLOSURE VERIFICATION)

Risk-Based Remediation Standards

Sampling Plan and Analytical Procedures

(ADD INFO RE: CLOSURE SAMPLES AND BACKGROUND SAMPLES)

METHODS AND PROCEDURES

The sample collection and handling procedures described below will be used to implement the scope of work presented in this work plan. A mobile laboratory will be used to obtain immediate-to-short turn around analytical results and SVOC will be analyzed in addition VOCs. The EPA Method 5035 (field methanol preservation) procedure will not be used during this investigation phase of this work plan because it will negatively affect the detection limits of the on-site mobile laboratory apparatus.

With the exception of the use of a mobile laboratory and the evaluation of SVOCs, the methods and procedures described below are the same as those implemented during the previous investigation activities described in the Limited Subsurface Soil Investigation, dated February 16, 2000.

Soil Borings

Soil borings will be advanced to a total depth of 14 feet using Geoprobe$_{TM}$ direct push methods. The sample will be collected in four-foot long 2-inch diameter macro-sampler core barrels lined with clear PVC sampling sleeves. A clean stainless steel knife will be use to dissect the liner to extract the sample

for evaluation. Part of the sample will be field screened using a PID. Soil samples representative of the depth intervals identified in Section 4 of this document will be collected using a clean wood or stainless steel spatula and submittal to an on-site mobile laboratory technician for VOC and/or SVOC (PNA) analyses.

Sample Handling and Analyses

Probe rods will be decontaminated between borings using Liquinox detergent and rinsed with clean deionized water. All tools used to extract the soil samples from the sampling tubes will be cleaned using a Liquinox detergent solution and rinsed with de-ionized water prior to collecting each sample. Decontamination fluids and rinses will be disposed at the facility waste water treatment plant. New latex gloves will be worn by the sampling personnel and changed between sample collection events.

Samples will be placed in pre-labeled containers provided by the mobile laboratory technician. Each container will be specifically marked for the parameter to be analyzed. Sample preservatives (if necessary) will be pre-measured and placed into the sample containers by the mobile laboratory tachnician. Each sample container will have a label to record the sample identification, sample depth, sample date and time, parameter(s) for analysis, person collecting the sample, and other pertinent data. Once filled, sample containers will be placed in a chilled insulated cooler until it is extracted and loaded into the mobile laboratory GC/MS. Sample information and handling history will be documented on laboratory supplied chain-of-custody forms.

Samples will be analyzed in mobile laboratory units provided and operated by New Age/Landmark Mobile Laboratory Services, of Benton Harbor, Michigan. QA/QC Plan document can be submitted to the Ohio EPA upon request.

Volatile organic compounds will be analyzed by GC/MS using EPA Method 8260. Semi-volatile organic compounds will be analyzed using EPA Method 8270.

Sampling Grid Calculations

VSR

Description of Removal Efforts and Treatment Processes

Specifics for Waste-In-Place Closures

Certification

Status of Facility After Closure

Cost Estimates for Closure and Post-Closure

Campbell's Soup

Campbell Soup Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone#: 856-968-4423
Fax#: 856-968-2808/2809

March 30, 2001

RECEIVED
APR 02 2001
OHIO E.P.A.
N.W.D.O.

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager – M. Terpinski
347 North Dunbridge Road
Bowling Green, OH 43402

and

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

Re: Director's Final Findings and Orders
Campbell Soup Supply Company L.L.C.
Campbell Soup Company
Withdrawal of Earlier Work Plan Submission

Gentlemen:

This is to request withdrawal of our previous submittal of "RCRA Closure Investigation Work Plan – Former Holding Pit Area" dated November 2, 2000. Also, we request your approval of extension of the time required for submittal of RCRA Closure Plan for 90 days from the date of this letter. Pursuant to our discussion with Mr. Mike Terpinski, this extension will allow the completion of sampling activities and to obtain the necessary information for the preparation of an appropriate Closure Plan in accordance with OAC rules.

Please give me a call at 856-968-4423 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

Osman. M. Aly, Ph.D.
Consultant

OMA/dp

cc: Faith Greenfield
Mike Maringer (Napoleon)
Robert Shober

Campbell's Soup

Campbell SOUP Company

RECEIVED
NOV 16 2000
OHIO E.P.A.
N.W.D.O.

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Director – Environmental Affairs

Telephone#: 856-968-44[illegible]
Fax#: 856-968-2808/2809

November 14, 2000

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager
347 North Dunbridge Road
Bowling Green, OH 43402

and

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

Re: Director's Final Findings and Orders
Campbell Soup Company
Campbell Soup Supply Company L.L.C.
October 18, 2000

Gentlemen:

Please find enclosed a copy of certified check for $80,000 in Settlement of Ohio EPA's claims for civil penalties pursuant to the above mentioned Order. The original check was forwarded to Ohio EPA as directed.

Sincerely,

CAMPBELL SOUP COMPANY

O. M. Aly/dp.

Osman. M. Aly, Ph.D.
Director – Environmental Affairs

OMA/dp
cc: F. Greenfield
att.

3029

CAMPBELL SOUP COMPANY

CERTIFIED
BY CAMPBELL EMPLOYEES F. C. U.

55-7765/2360

11.13 xx2000

Payable Only as Originally Drawn and When Properly Endorsed

PAY TO THE ORDER OF Treasurer, State of Ohio $ 80,000.00

Eighty Thousand and ----------00/100 DOLLARS

Campbell Employees Federal Credit Union

By

Date 11-15-00

FOR

⑈003029⑈ ⑆236077658⑆ 75235999999996⑈

Remittance Advice — **Detach Here - Please Return This Portion With Your Payment**

Organization ID Information

4509

Campbell Soup Supply Co
12-773 State Route 110
Napoleon, OH 43545-

Due Date: Nov-17-2000

Amount Due: $80,000.00

Amount Enclosed: $ 80,000.00

Secondary Type/Id:

Revenue Type/Id: FOHW 171705

Make check or money order payable to "Treasurer, State of Ohio"

Remit to:
Ohio EPA
Department 631
Columbus, OH 43265-0631

For Ohio EPA use only

Check ID: _____
Check Date: _____
Check Number: _____
Check Amount $ _____

4509	FOHW	171705	Campbell Soup Supply Co	8000000

C. Hall

Campbell Soup Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Director – Environmental Affairs

Telephone#: 856-968-4423
Fax#: 856-968-2808/2809

November 2, 2000

RECEIVED
NOV 03 2000
OHIO EPA
N.W.D.O.

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager
347 North Dunbridge Road
Bowling Green, OH 43402

and

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

This document can be found
in the
NWDO DHWM Facility Document
Library

Re: Director's Final Findings and Orders
Campbell Soup Supply Company L.L.C.
Campbell Soup Company

Gentlemen:

Enclosed please find a report entitled "RCRA Site Closure Investigation Work Plan – Former Holding Pit Area" related to Campbell Soup Supply Company facility at Napoleon, Ohio.

The Closure Work Plan is submitted in compliance with the above referenced Order dated October 18, 2000 for your review and approval.

Please give me a call at 856-968-4423 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

Osman. M. Aly, Ph.D.
Director – Environmental Affairs

OMA/dp

cc: F. Greenfield
M. Maringer
C. del Sol

att.

Campbell Soup Co.

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

RECEIVED
OCT 20 2000
OHIO E.P.A.
N.W.D.O.

CERTIFIED MAIL

October 18, 2000

Re: Director's Final Findings and Orders
Campbell Soup Company
Campbell Soup Supply Company LLC

Dr. Osman Aly, Director - Environmental Affairs
Campbell Soup Company
Campbell Place
Camden, NJ 08103

and

Corporate Secretary
Campbell Soup Company
Campbell Place
Camden, NJ 08103

Dear Sirs:

Transmitted herewith are Final Findings and Orders of the Director concerning the matter indicated.

Sincerely,

Thomas E. Crepeau

Thomas E. Crepeau, Manager
Data Management Section
Division of Hazardous Waste Management

wp8.TEC.psa.lcn.g:campbell soup co

cc: Michael A. Savage, Chief, DHWM
Pamela S. Allen, Mgr., CAS, DHWM
Todd Anderson, Legal
Heidi Greismer, PIC
Chuck Hull, DHWM, NWDO

OHIO E.P.A.

OCT 18 2000

ENTERED DIRECTOR'S JOURNAL

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Campbell Soup Company
World Headquarters
1 Campbell Place
Camden, NJ 08103-1799

and

Campbell Soup Supply Company L.L.C.
12 773 State Route 110
Napoleon, OH 43545

Respondents

Director's Final Findings and Orders

PREAMBLE

It is hereby agreed by and among the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders ("Orders") are issued to the Campbell Soup Company and Campbell Soup Supply Company L.L.C. ("Respondents") pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") under § 3734.13 and § 3745.01 of the Ohio Revised Code ("ORC").

II. PARTIES BOUND

These Orders shall apply to and be binding upon the Respondents, their assigns and successors in interest. No changes in ownership relating to the Facility will in any way alter the Respondents' responsibilities under these Orders. The Respondents' obligations under these Orders may be altered only by the written approval of the Director of Ohio EPA.

III. DEFINITIONS

1. Unless otherwise stated, all terms in these Orders shall have the same meaning as used in Chapter 3734. of the ORC and the regulations promulgated thereunder.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

Date: 10-18-2000

2. The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

IV. FINDINGS OF FACT

Respondents are entering into these Orders to resolve a disputed claim. Nothing in these Orders shall be construed as an admission of fact or of liability by Respondents. The Director of Ohio EPA has determined the following findings of fact:

1. Respondents are "persons" as defined in ORC § 3734.01(G) and Ohio Administrative Code ("OAC") rule 3745-50-10(A).

2. Respondents own and operate a food production plant located at 12 773 State Route 110, in Napoleon, Henry County, Ohio ("Facility"). Respondent, Campbell Soup Company, is a New Jersey corporation. Respondent, Campbell Soup Supply Company L.L.C., a subsidiary of Campbell Soup Company, is a Delaware limited liability company registered to do business in the State of Ohio on July 26, 1999. At the Facility, Respondents produce heat processed food products including soups and several types of vegetable juices. Respondents manufactured cans at the Facility until July, 1998.

3. At the Facility, Respondents generate "hazardous waste" as that term is defined by ORC § 3734.01(J) and OAC rules 3745-50-10(A) and 3745-51-03.

4. Respondent, Campbell Soup Company, notified the United States Environmental Protection Agency ("U.S. EPA") of its hazardous waste activity at the Facility and was issued U.S. EPA identification number OHD 005 419 171 on August 2, 1980.

5. On November 18, 1980, Respondent, Campbell Soup Company, submitted a Part A permit application for the Facility to the U.S. EPA. The Part A application identified storage of hazardous waste at the Facility in tanks and containers and thermal treatment of hazardous waste in a boiler located at the Facility.

6. As noted in Finding No. 2. above, Respondents manufactured cans at the Facility until July, 1998. In the manufacture of the cans, Respondents utilized coating machines to apply a rust inhibitor to the cans to increase durability. Maintenance activities on the coating machines generated listed and characteristic hazardous waste coating material.

7. The hazardous waste coating material referenced in Finding No. 6. above, consisted of a liquid phase (top or "solvent" layer) and a semi-solid phase. Only

the liquid phase (top or "solvent" layer) of the hazardous waste coating material was amenable for use as a fuel. Ohio EPA asserts that Respondents poured the liquid phase (top or "solvent" layer) onto a coal pile and then burned as a fuel the coal in a boiler located at the Facility.

8. According to information provided by Respondents, between 1981 and 1983, Respondents stored and/or disposed of the semi-solid phase of the hazardous waste coating material which was not amenable for burning in at least two earthen pits ("Pits") located at the Facility. According to information provided by Respondents, the Pits were approximately 20 feet by 40 feet and were 2.5 to 3 feet deep. According to information provided by Respondents, Respondents excavated the Pits sometime in 1983. Respondents mixed the excavated hazardous waste with sand and sent the waste off-site for disposal at Evergreen Landfill in Northwood, Ohio.

9. On December 2 and 3, 1999, Respondents conducted limited sampling of the former Pits area. Sampling results, provided to Ohio EPA on March 23, 2000, revealed volatile organic chemical contamination at depths at least as great as ten feet below ground surface.

10. By letter dated May 16, 2000, Ohio EPA notified Respondents that Ohio EPA believed Respondents had stored, treated, and disposed of hazardous waste at the Facility without a hazardous waste facility installation and operation permit, in violation of ORC § 3734.02(E). In the May 16, 2000 letter, Ohio EPA also directed Respondents to submit to Ohio EPA a closure plan. In addition to the violation of ORC § 3734.02(E), Ohio EPA has determined that Respondents failed to evaluate the waste coating material, in violation of OAC rule 3734-52-11.

11. It is Ohio EPA's position that the Pits, where hazardous waste was disposed of without a permit, are hazardous waste management units subject to applicable hazardous waste facility requirements, including OAC rules 3745-55-11/3745-66-11. The Pits have not undergone closure, as required by and pursuant to OAC rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20.

V. ORDERS

The Respondents shall achieve compliance with Chapter 3734. of the ORC and the regulations promulgated thereunder according to the following compliance schedule:

1. Respondents shall close the Pits area at the Facility where hazardous waste was

disposed of without a permit, in accordance with OAC rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20. Within 30 days after the effective date of these Orders, Respondents shall submit to Ohio EPA a closure plan, prepared in accordance with OAC rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20.

2. The closure plan referenced in Order No. 1 is subject to Ohio EPA review and approval. If Ohio EPA does not approve the closure plan, and provides Respondents with a written statement of deficiencies, Respondents shall, within 30 days after receipt of such written statement, revise the closure plan or submit a new closure plan to Ohio EPA addressing the deficiencies. Ohio EPA may approve the closure plan with modifications, after providing Respondents with a reasonable opportunity to comment thereon. If Ohio EPA modifies the closure plan, the modified closure plan shall become the approved closure plan.

3. Upon receiving Ohio EPA's written approval of the closure plan, Respondents shall implement the approved closure plan pursuant to the specifications and schedules contained in the approved closure plan, any modifications attached to the approved closure plan, and OAC rules 3745-55-13/3745-66-13.

4. Within 60 days after completion of closure, Respondents shall submit to Ohio EPA a closure certification in accordance with OAC rules 3745-55-15/3745-66-15.

5. Within 60 days after the effective date of these Orders, Respondents shall submit to Ohio EPA a closure cost estimate and documentation demonstrating that Respondents have established financial assurance and liability coverage for closure in accordance with OAC rules 3745-55-42/3745-66-42 through 3745-55-47/3745-66-47.

6. Within 30 days from the effective date of these Orders, Respondents shall pay to Ohio EPA the amount of $80,000.00 in settlement of Ohio EPA's claims for civil penalties which may be assessed for noncompliance pursuant to ORC Chapter 3734. and which will be deposited into the hazardous waste cleanup fund established pursuant to ORC § 3734.28. Payment shall be made by tendering a certified check for $80,000.00 to Ohio EPA, Department 631, Columbus, Ohio 43265-0631, made payable to "Treasurer, State of Ohio." A copy of this check shall be submitted in accordance with Section IX of these Orders.

VI. TERMINATION

The Respondents' obligations under these Orders shall terminate when the

Respondents demonstrate in writing and certify to the satisfaction of Ohio EPA that all obligations under these Orders have been performed and Ohio EPA's Division of Hazardous Waste Management acknowledges, in writing, Ohio EPA's acceptance of this demonstration and certification.

This certification shall be submitted by the Respondents and shall be signed by a responsible official of the Respondents. The certification shall make the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

For purposes of these Orders, a responsible official is a corporate officer who is in charge of a principal business function of the Respondents.

VII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a signatory to these Orders, for any liability arising out of or relating to the operations of the Respondents' Facility.

VIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. Nothing in these Orders shall be construed as waiving or compromising in any way the applicability and enforcement of any other statutes or regulations applicable to the Respondents' operation of the Facility. Ohio EPA reserves all rights and privileges except as specified herein. Respondents reserve all rights and defenses which may be available at law or in equity and under any statute, regulation or common law applicable to Respondents' operation of the Facility, except as specified herein.

IX. NOTICE

All documents demonstrating compliance with these Orders, and other documents required under these Orders to be submitted to Ohio EPA, shall be addressed to:

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager
347 North Dunbridge Road

Bowling Green, OH 43402

and Ohio EPA Central Office at the following address:

For mailings, use the post office box number:

Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
P.O. Box 1049
Columbus, Ohio 43216-1049

For deliveries to the building and courier services:

Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

All documents to be submitted to Respondents under this Order shall be addressed to:

Dr. Osman Aly
Director - Environmental Affairs
Campbell Soup Company
Campbell Place
Camden, New Jersey 08103

and

Corporate Secretary
Campbell Soup Company
Campbell Place
Camden, New Jersey 08103

X. RESERVATION OF RIGHTS

Nothing contained herein shall be construed to prevent Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking administrative, legal or equitable action as deemed appropriate and necessary, including seeking penalties against the Respondents for noncompliance with these Orders. Nothing contained herein shall be construed to prevent Ohio EPA from exercising its lawful authority to require the Respondents to perform additional activities, including closure of additional hazardous waste management units at the Facility, pursuant to ORC Chapter 3734. or any other applicable law in the future. Nothing herein shall restrict the right of the Respondents to raise any administrative, legal or equitable claim or defense with respect to such further actions which Ohio EPA may seek to require of the Respondents. Nothing in these Orders shall be construed to limit the authority of Ohio EPA to seek relief for violations not addressed in these Orders.

XI. SIGNATORIES

Each undersigned representative of a signatory to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such signatory to this document.

IT IS SO ORDERED:

Christopher Jones
Director

October 18, 2000
Date

XII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, and, subject to Section X of these Orders, in lieu of further enforcement action by Ohio EPA for only the violations addressed in these Orders, the Respondents agree that these Orders are lawful and reasonable, that the times provided for compliance herein are reasonable and that the Respondents agree to comply with these Orders. Subject to Section X., above, compliance with these Orders shall be a full accord and satisfaction for the Respondents' liability for the violations cited herein.

The Respondents hereby waive the right to appeal the issuance, terms and service of these Orders and hereby waive any and all rights they might have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and the Respondents agree that in the event that these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, the Respondents retain the right to intervene and participate in such appeal. In such an event, the Respondents shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

IT IS SO AGREED:

Campbell Soup Company

[signature] 10/2/00
Date

VP - CONTROLLER
Title

Campbell Soup Supply Company L.L.C.

[signature] 10/2/00.
Date

VP - CONTROLLER
Title

Ohio Environmental Protection Agency

[signature] October 18, 2000
Date

Christopher Jones
Director

G:\campbelldffo2.frm (9/18/2000)

Campbell's Soup

Ohio EPA

State of Ohio Environmental Protection Agency

Legal Office Facsimile

Lazarus Government Center
P.O. Box 1049, 122 S. Front Street
Columbus, Ohio 43216-1049

TELECOPIER COVER SHEET

PLEASE DELIVER THE FOLLOWING TELECOPIED PAGE(S) TO:

NAME: Mike Terpinski

AFFILIATION: DHWM-NWDO

FAX NUMBER: (419) 352-8468 QUICK DIAL #: [ ]

TOTAL NUMBER OF PAGES **INCLUDING** COVER SHEET: ~~13~~ 12

DATE: 9/18/00

SENDER: Todd Anderson

IF YOU DO NOT RECEIVE ALL OF THE PAGES AND/OR ANY PROBLEMS ARISE DURING TRANSMISSION, PLEASE CALL A.S.A.P. ◆ (614) 644-3037 ◆

OhioEPA Legal Office Fax Number - (614) 728-1803

OhioEPA Agency Fax Number - (614) 644-2329

PLEASE NOTE: Mike: Let me know if you have any comments. Thanks, Todd

If this transmission is received in error by anyone other than the intended entity, PLEASE contact the Ohio EPA, Legal Office at (614) 644-3037, IMMEDIATELY

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

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SEP
OHIO E.P.A.
N.W.D.O.

Campbell's Soup

September 6, 2000

David Johnson
President and Chief Executive Officer
Campbell Soup Company
World Headquarters
1 Campbell Place
Camden, NJ 08103-1799

RE: Proposed Director's Final Findings and Orders - Campbell Soup Company and Campbell Soup Supply Company L.L.C.

Dear Mr. Johnson:

The hazardous waste violations that have occurred at the Campbell Soup facility located in Napoleon, Ohio concern me. During a meeting conducted on March 23, 2000, Campbell Soup provided information to Ohio EPA which revealed that Campbell Soup disposed of hazardous waste at the Napoleon facility without a hazardous waste facility installation and operation permit in violation of Ohio law. Specifically, the information provided by Campbell Soup revealed that Campbell Soup stored and disposed of listed and characteristic hazardous waste in at least two earthen pits located at the Napoleon facility. Furthermore, the information provided by Campbell Soup revealed that the unpermitted storage and disposal of hazardous waste in the pits occurred over a two year period from 1981 to 1983. By letter dated May 16, 2000, Ohio EPA notified Campbell Soup that based upon the storage and disposal of hazardous waste in the pits without a permit, Campbell Soup had violated Ohio Revised Code § 3734.02(E). Additionally, Ohio EPA has determined that Campbell Soup also failed to properly evaluate its wastes to determine if the waste was hazardous waste, in violation of Ohio Administrative Code rule 3745-52-11. Due to the seriousness of the violations, I have determined that an enforcement action is necessary.

I recognize that Campbell Soup brought the unpermitted storage and disposal of hazardous waste in the pits to Ohio EPA's attention. I am encouraged by Campbell Soup's self-reporting of the violation and have taken this fact into consideration when determining the appropriate civil penalty settlement. Please note that based upon the Campbell Soup's self-reporting of the violation, the proposed civil penalty settlement has been mitigated by 25 percent.

Although Campbell Soup brought the violations to Ohio EPA's attention, the violations are serious and Director's Final Findings and Orders are warranted. Based upon Campbell Soup's disclosure of these violations and the willingness expressed by Campbell Soup to close the unpermitted hazardous waste storage and disposal area, I believe this matter can be resolved amicably and expeditiously through negotiated Director's Final Findings and Orders. A resolution through negotiated Director's Final Findings and Orders would avoid the time and expense associated with litigation upon referral to the Ohio Attorney General. I request that Campbell Soup promptly attend to this matter.

Attached, please find proposed Director's Final Findings and Orders and a summary of the civil penalty settlement assessment. As proposed, the Director's Final Findings and Orders require Campbell Soup to pay to Ohio EPA a $94,762.50.00 civil penalty settlement and close the pits area where the hazardous waste was stored and disposed of without a permit. Please also find attached an information sheet. The information sheet is designed to assist Campbell Soup in understanding the administrative enforcement process within Ohio EPA's Division of Hazardous Waste Management. The information sheet includes answers to questions which are commonly asked by parties involved in the administrative enforcement process.

If Campbell Soup is willing to accept the proposed Director's Final Findings and Orders as written, please notify Todd Anderson of Ohio EPA's Legal Office at (614) 644-3037 within fourteen (14) days of Campbell Soup's receipt of this letter. If Campbell Soup is unwilling to sign the Director's Final Findings and Orders as written, Ohio EPA encourages Campbell Soup to pursue the possibility of settlement through a settlement meeting or telephone conference. Prior to any settlement meeting or telephone conference, Ohio EPA requests that Campbell Soup provide a written response to the proposed Director's Final Findings and Orders that clearly and directly explains Campbell Soup's position regarding the orders. Campbell Soup should pay particular attention to **Section IV., Findings of Fact** and **Section V., Orders** when developing its response. It would also be helpful if the response stated the circumstances or arguments that Campbell Soup alleges constitute grounds for defense, if any, and the facts Campbell Soup believes Ohio EPA should consider in determining whether to mitigate the proposed civil penalty settlement. Please note, as mentioned previously, the $94,762.50.00 proposed civil penalty settlement already includes a 25 percent mitigation addressing Campbell Soup's self-reporting. Also, Ohio EPA may be willing to mitigate a portion of the proposed civil penalty settlement if Campbell Soup agrees to implement a mutually agreed-upon supplemental environmental project.

If Campbell Soup desires to hold a settlement meeting or telephone conference, please contact Mr. Anderson at the telephone number above within fourteen (14) days of receipt of this letter. If Campbell Soup should decline to enter into negotiated Director's Final

Findings and Orders or if Campbell Soup does not respond to this letter within fourteen (14) days, I will deem this offer withdrawn and I will consider other enforcement alternatives including referral of this matter to the Ohio Attorney General's Office.

Because this letter and the attached documents summarize a proposed settlement, I consider them inadmissible by Campbell Soup for any purpose in any enforcement action that the state may take should Campbell Soup decline this offer.

Sincerely,



Christopher Jones
Director

cc: Michael Savage, Chief, DHWM
Ed Hammett, Chief, NWDO
Michael Maringer, Campbell Soup Supply Company L.L.C.
Todd Anderson, Legal

Attachments

CJ/taa

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Campbell Soup Company
World Headquarters
1 Campbell Place
Camden, NJ 08103-1799

and

Campbell Soup Supply Company L.L.C.
12 773 State Route 110
Napoleon, OH 43545

Respondents

Director's Final Findings and Orders

PREAMBLE

It is hereby agreed by and among the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders ("Orders") are issued to the Campbell Soup Company and Campbell Soup Supply Company L.L.C. ("Respondents") pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") under § 3734.13 and § 3745.01 of the Ohio Revised Code ("ORC").

II. PARTIES BOUND

These Orders shall apply to and be binding upon the Respondents, their assigns and successors in interest. No changes in ownership relating to the Facility will in any way alter the Respondents' responsibilities under these Orders. The Respondents' obligations under these Orders may be altered only by the written approval of the Director of Ohio EPA.

III. DEFINITIONS

1. Unless otherwise stated, all terms in these Orders shall have the same meaning as used in Chapter 3734. of the ORC and the regulations promulgated thereunder.

2. The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

IV. FINDINGS OF FACT

The Director of Ohio EPA has determined the following findings of fact:

1. Respondents are "persons" as defined in ORC § 3734.01(G) and Ohio Administrative Code ("OAC") rule 3745-50-10(A).

2. Respondents own and operate a food production plant located at 12 773 State Route 110, in Napoleon, Henry County, Ohio ("Facility"). Respondent, Campbell Soup Company, is a New Jersey corporation. Respondent, Campbell Soup Supply Company L.L.C., a subsidiary of Campbell Soup Company, is a Delaware limited liability company registered to do business in the State of Ohio on July 26, 1999. At the Facility, Respondents produce heat processed food products including soups and several types of vegetable juices. Respondents manufactured cans at the Facility until July, 1998.

3. At the Facility, Respondents generate "hazardous waste" as that term is defined by ORC § 3734.01(J) and OAC rules 3745-50-10(A) and 3745-51-03.

4. Respondent, Campbell Soup Company, notified the United States Environmental Protection Agency ("U.S. EPA") of its hazardous waste activity at the Facility and was issued U.S. EPA identification number OHD 005 419 171 on August 2, 1980.

5. On November 18, 1980, Respondent, Campbell Soup Company, submitted a Part A permit application for the Facility to the U.S. EPA. The Part A application identified storage of hazardous waste at the Facility in tanks and containers and thermal treatment of hazardous waste in a boiler located at the Facility.

6. As noted in Finding No. 2. above, Respondents manufactured cans at the Facility until July, 1998. In the manufacture of the cans, Respondents utilized coating machines to apply a rust inhibitor to the cans to increase durability.

Maintenance activities on the coating machines generated listed and characteristic hazardous waste coating material.

7. The hazardous waste coating material referenced in Finding No. 6. above, consisted of a liquid phase (top or "solvent" layer) and a semi-solid phase. Only the liquid phase (top or "solvent" layer) of the hazardous waste coating material was amenable for use as a fuel. Respondents poured the liquid phase (top or "solvent" layer) onto a coal pile and then burned as a fuel the coal in a boiler located at the Facility. Respondents also transported or caused to be transported some of the hazardous waste coating material consisting of both the liquid phase (top or "solvent" layer) and the semi-solid phase off-site.

8. According to information provided by Respondents, between 1981 and 1983, Respondents stored and/or disposed of the semi-solid phase of the hazardous waste coating material which was not amenable for burning in at least two earthen pits ("Pits") located at the Facility. According to information provided by Respondents, the Pits were approximately 20 feet by 40 feet and were 2.5 to 3 feet deep. According to information provided by Respondents, Respondents excavated the Pits sometime in 1983. Respondents mixed the excavated hazardous waste with sand and sent the waste off-site for disposal at Evergreen Landfill in Northwood, Ohio.

9. On December 2 and 3, 1999, Respondents conducted limited sampling of the former Pits area. Sampling results, provided to Ohio EPA on March 23, 2000, revealed volatile organic chemical contamination at depths at least as great as ten feet below ground surface.

10. By letter dated May 16, 2000, Ohio EPA notified Respondents that Respondents had stored, treated, and disposed of hazardous waste at the Facility without a hazardous waste facility installation and operation permit, in violation of ORC § 3734.02(E). In the May 16, 2000 letter, Ohio EPA also directed Respondents to submit to Ohio EPA a closure plan. In addition to the violation of ORC § 3734.02(E), Ohio EPA has determined that Respondents failed to evaluate the waste coating material, in violation of OAC rule 3734-52-11.

11. The Pits, where hazardous waste was disposed of without a permit, are hazardous waste management units subject to applicable hazardous waste facility requirements, including OAC rules 3745-55-11/3745-66-11. The Pits have not undergone closure, as required by and pursuant to OAC rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20.

V. ORDERS

The Respondents shall achieve compliance with Chapter 3734. of the ORC and the regulations promulgated thereunder according to the following compliance schedule:

1. Respondents shall close the Pits area at the Facility where hazardous waste was disposed of without a permit, in accordance with OAC rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20. Within 30 days after the effective date of these Orders, Respondents shall submit to Ohio EPA a closure plan, prepared in accordance with OAC rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20.

2. The closure plan referenced in Order No. 1 is subject to Ohio EPA review and approval. If Ohio EPA does not approve the closure plan, and provides Respondents with a written statement of deficiencies, Respondents shall, within 30 days after receipt of such written statement, revise the closure plan or submit a new closure plan to Ohio EPA addressing the deficiencies. After receipt of Respondents' new or revised closure plan, Ohio EPA will notify Respondents in writing that Ohio EPA either approves the closure plan or approves the closure plan with modifications. If Ohio EPA modifies the closure plan, the modified closure plan shall become the approved closure plan.

3. Upon receiving Ohio EPA's written approval of the closure plan, Respondents shall implement the approved closure plan pursuant to the specifications and schedules contained in the approved closure plan, any modifications attached to the approved closure plan, and OAC rules 3745-55-13/3745-66-13.

4. Within 60 days after completion of closure, Respondents shall submit to Ohio EPA a closure certification in accordance with OAC rules 3745-55-15/3745-66-15.

5. Within 60 days after the effective date of these Orders, Respondents shall submit to Ohio EPA a closure cost estimate and documentation demonstrating that Respondents have established financial assurance and liability coverage for closure in accordance with OAC rules 3745-55-42/3745-66-42 through 3745-55-47/3745-66-47.

6. Within thirty (30) days from the effective date of these Orders, Respondents shall pay to Ohio EPA the amount of $94,762.50.00 in settlement of Ohio EPA's claims for civil penalties which may be assessed for noncompliance pursuant to ORC Chapter 3734. and which will be deposited into the hazardous waste

cleanup fund established pursuant to ORC § 3734.28. Payment shall be made by tendering a certified check for $94,762.50 to Ohio EPA, Department 631, Columbus, Ohio 43265-0631, made payable to "Treasurer, State of Ohio." A copy of this check shall be submitted in accordance with Section IX of these Orders.

VI. TERMINATION

The Respondents' obligations under these Orders shall terminate when the Respondents demonstrate in writing and certify to the satisfaction of Ohio EPA that all obligations under these Orders have been performed and Ohio EPA's Division of Hazardous Waste Management acknowledges, in writing, Ohio EPA's acceptance of this demonstration and certification.

This certification shall be submitted by the Respondents and shall be signed by a responsible official of the Respondents. The certification shall make the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

For purposes of these Orders, a responsible official is a corporate officer who is in charge of a principal business function of the Respondents.

VII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a signatory to these Orders, for any liability arising out of or relating to the operations of the Respondents' Facility.

VIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. Nothing in these Orders shall be construed as waiving or compromising in any way the applicability and enforcement of any other statutes or regulations applicable to the Respondents' operation of the Facility. Ohio EPA reserves all rights and privileges except as specified herein.

IX. NOTICE

All documents demonstrating compliance with these Orders, and other documents required under these Orders to be submitted to Ohio EPA, shall be addressed to:

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager
347 North Dunbridge Road
Bowling Green, OH 43402

and Ohio EPA Central Office at the following address:

For mailings, use the post office box number:

Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
P.O. Box 1049
Columbus, Ohio 43216-1049

For deliveries to the building and courier services:

Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

X. RESERVATION OF RIGHTS

Nothing contained herein shall be construed to prevent Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking administrative, legal or equitable action as deemed appropriate and necessary, including seeking penalties against the Respondents for noncompliance with these Orders. Nothing contained herein shall be construed to prevent Ohio EPA from exercising its lawful authority to require the Respondents to perform additional activities, including closure of additional hazardous waste management units at the Facility, pursuant to ORC Chapter 3734. or any other applicable law in the future. Nothing herein shall restrict the right of the Respondents to raise any administrative, legal or equitable claim or defense with respect to such further actions which Ohio EPA may seek to require of the Respondents. Nothing in these Orders shall be construed to limit the authority of Ohio EPA to seek relief for violations not addressed in these Orders.

XI. SIGNATORIES

Each undersigned representative of a signatory to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such signatory to this document.

IT IS SO ORDERED:

_____ _____

Christopher Jones
Director

Date

XII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, and, subject to Section X of these Orders, in lieu of further enforcement action by Ohio EPA for only the violations addressed in these Orders, the Respondents agree that these Orders are lawful and reasonable, that the times provided for compliance herein are reasonable and that the Respondents agree to comply with these Orders. Subject to Section X., above, compliance with these Orders shall be a full accord and satisfaction for the Respondents' liability for the violations cited herein.

The Respondents hereby waive the right to appeal the issuance, terms and

service of these Orders and hereby waive any and all rights they might have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and the Respondents agree that in the event that these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, the Respondents retain the right to intervene and participate in such appeal. In such an event, the Respondents shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

IT IS SO AGREED:

Campbell Soup Company

_____ _____
Date

_____
Title

Campbell Soup Supply Company L.L.C.

_____ _____
Date

_____
Title

Ohio Environmental Protection Agency

_____ _____
Christopher Jones Date
Director

CONFIDENTIAL
ENFORCEMENT SENSITIVE

Hazardous Waste Civil Penalty Summary Sheet

Respondent: Campbell's Soup Supply Company, L.L.C.

07/21/00

Citation	Description	Days of Violation	Potential for Harm	Extent of Deviation	1st Day Penalty	Multi-Day Penalty	Adjustments	Total Penalty
OAC 3745-52-11 ORC 3734.02(E)	Failure to evaluate waste Illegal storage, treatment and disposal of hazardous waste	N/A	Major	Major	$10,000.00	$116,350.00	($31,587.50)	$94,762.50
							TOTAL→	$94,762.50

CONFIDENTIAL - ENFORCEMENT SENSITIVE

Date of Violations(s) 1981-1983
Date of NOV 05/16/2000
Date of RTC _____

Hazardous Waste Civil Penalty Computation Worksheet

Company Name: Campbell Soup Supply Company, L.L.C.
Description of Violation: Failure to Evaluate Waste, Illegal Storage, Treatment and Disposal of Hazardous Waste
Citation: OAC 3745-52-11, ORC 3734.02(E)

Part I - Gravity

	INITIAL	REVISION	FINAL
Potential for Harm:	Minor/Moderate/**Major**		Minor/Moderate/Major

Justification: Campbell failed to evaluate the coating material waste. Campbell illegally stored, treated, and disposed of hazardous waste into two unpermitted holding pits, resulting in soil contamination at least 10 feet below grade.

Extent of Deviation:	Minor/Moderate/**Major**	Minor/Moderate/Major

Justification: Campbell's stored, treated and disposed of hazardous waste without a hazardous waste permit.

Matrix Cell Range:	$8000-$10,000	$
(A) Penalty Amount Determined	$10,000	$

Part II - Multi-Day Penalty

(B) # of Days of Violation - 180

Multi-Day Matrix Cell Range:	$400-2000	$
(C) Multi-Day Penalty Amount Determined:	$650	$

(D) Multi-Day Penalty = 179 X $650 = $116,350
[(B)-1]x(C)

Total Penalty = (A) + (D) $126,350

25% adjustment downward for self-reporting = $94,762.50

Prepared By: H. Sarvis

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402-9398
(419) 352-8461 **FAX** (419) 352-8468

Bob Taft
Governor

Re: Henry County
Campbell's Soup Company
OHD 005419171
Hazardous Waste

August 10, 2000

Mr. Michael Maringer
Manager, Service and Utilities
Campbell's Soup Company
East Maumee Avenue
Napoleon, Ohio 43545

Dear Mr. Maringer:

On June 30, 2000, this office received a report from Campbell's Soup Company (Campbell's) entitled RCRA Site Closure Investigation Work Plan: Former Holding Pit Area. Ohio EPA has reviewed the document and offers the following comments:

1. Campbell's has not identified the full horizontal or vertical range of contamination. Sample data submitted shows the majority of samples were taken at depths of 9.5 to 10 feet, with no samples taken from 0 to 6 feet. It is possible that contamination exists in more shallow soils beyond the boundaries of Campbell's sampling. Therefore, a more thorough investigation needs to be conducted.

   Samples at each prior boring must be taken at shallower depths than 10 feet. It is probable that contamination may exist in soil at depths from 6-8 feet, for example, but not at 10 feet. For this reason, a non-detect value at 10 feet alone cannot be used to determine the horizontal extent of contamination. Taking samples from 3, 6, and 12 feet below grade is acceptable. However, the deeper sample to be held at the laboratory should be taken from 14, not 16, feet.

2. Only advancing additional borings at sample numbers PB-23 through 26 is unacceptable. The full vertical extent of contamination from the former holding pits must be defined. The highest concentrations of contaminants could be found in soils between 4 to 8 feet below grade, yet the work plan only calls for additional sampling at 9 borings. Samples from all previous and future sampling points must be taken from 3, 6, 12 (9-10 foot interval having already been sampled), and 14 feet below grade.

3. Campbell's proposal to remove contaminated soils to another unimpacted area for the purpose of phytoremediation is not acceptable to Ohio EPA. The placement of soils from the former holding pit area onto unimpacted ground would constitute creation of a waste pile and require the submission of a RCRA Part B permit application for the waste pile.

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4. No details of how the samples were taken (other than saying samples were taken with a Geoprobe) is included in the report. Sampling protocol information must be provided to Ohio EPA in future submissions. Sampling results without this information will not be accepted for closure purposes.

5. The presence of naphthalene (a common ingredient in many industrial solvents) in samples from the December 1999 sampling event indicates semi-volatile organic compound (SVOCs) contamination. All samples should be analyzed for the presence of SVOCs as well as VOCs.

6. Figure 4 of the February 2000 limited investigation document does not include all soil contamination listed in Table 2 of said document. Acetone was found at 70.6 ug/kg at PB-17 and 63.5 ug/kg at PB-12; methyl ethyl ketone was found at 62.6 ug/kg at PB-11; total xylenes were found at 11.4 ug/kg at PB-01 and 38.4 (at 10 feet) at PB-15; ethylbenzene was found at 9.1 ug/kg (at 10 feet) at PB-15.

7. The sections dedicated to site geology and hydrogeology (section 2.3 and 2.4) will need to be much more detailed in the closure plan. For example, Campbell's must determine occurrence of the uppermost saturated unit, i.e., the occurrence of saturated conditions below the unit.

8. Campbell's must determine the vertical impact of soil contamination. Campbell's should leave the borings in the unit open to allow for infiltration of groundwater, if any. This would go to prove the occurrence of shallow groundwater.

9. If soil is impacted at concentrations greater than the Method Detection Limit (MDL) for VOCs at or below the shallow groundwater table, a complete groundwater investigation must be performed.

10. Section 3.1 of the work plan states that groundwater was not encountered in any borings at 12 feet. Campbell's should explain upon what evidence this conclusion is based.

11. A literature search is insufficient to determine local occurrence of groundwater. Campbell's must perform more sampling and obtain site specific information for the occurrence of groundwater.

12. Campbell's should be prepared to collect groundwater samples from the Geoprobe borings for VOCs and SVOCs, if groundwater occurs.

This review should not be construed to constitute a complete review of Campbell's closure plan for the former holding pit area. The plan will be addressed in detail in future correspondence.

This review did not include joint review by Ohio EPA's Division of Drinking and Ground Waters. If you have any questions, feel free to contact me.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/sw

pc: Jeremy Carroll, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
John Weaver, DDAGW, NWDO
DHWM, NWDO File
ec: Colleen Weaver, DHWM, NWDO

Campbell Soup Company

NAPOLEON, OHIO 43545

June 28, 2000

RECEIVED
JUN 2000

Mr. Michael R. Terpinski
Environmental Specialist
Division of Hazardous Waste Management
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402-9398

This document can be found
in the
NWDO DHWM Facility Document
Library

Dear Mr. Terpinski:

This is in response to your letter dated May 16, 2000, concerning Campbell Soup Company's report entitled "Limited Subsurface Soil Investigation; Former Holding Pit Area". We have developed a Work Plan for delineation of the contaminated soil at the above site that has considered all the comments presented in your letter. Enclosed, please find a copy of the "RCRA Site Closure Investigation Work Plan Former Holding Pit Area", June 16, 2000, prepared by HIS Geotrans, Ann Arbor, Michigan.

We would like to arrange a meeting with you in your office to discuss any comments you may have in order to implement the plan in a timely manner.

Please call me for a meeting date at your discretion. I can be contacted at 419-592-1010 extension 6343.

Sincerely,

CAMPBELL SOUP COMPANY

M. N. Maringer

Michael N. Maringer, Manager
Services & Utilities

MNM:sas

Enclosure

cc: Dr. O. M. Aly
Mr. R. J. Furbee

Campbell's Soup

RECEIVED
JUN 19 2000
OHIO E.P.A.
N.W.D.O

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
122 South Front St.
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
Lazarus Government Center
P. O. Box 1049
Columbus, OH 43216-1049

HAZARDOUS WASTE ENFORCEMENT COMMITTEE
CASE ASSIGNMENT

DATE: 6/15/00

Company Name: Campbell's Soup Company

U.S. EPA ID#: OHD987046703, OHD987023678
OHD005419171

Location: Napoleon

County: Henry

District: NWDO

Date Received Central Office: 6/15/00

Assigned To:

Attorney: Anderson Date Rec'd: _____

CAS Staff: Sarvis / Smith Date Rec'd: _____

Inspector: Mike Terpinski

HWEC Date: July 7, 2000

Allen Rec'd: _____
Sarvis Rec'd: _____
Neumann Rec'd: _____

Date of Inspection: _____

Recommendation: _____

Date Final Action Due: _____

Priority: SNC SV

Campbell's Soup

Campbell Soup Company

NAPOLEON, OHIO 43545

May 22, 2000

RECEIVED

MAY 23 2000

OHIO E.P.A.
N.W.D.O.

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
c/o Mr. Michael R. Terpinski, Environmental Specialist
347 N. Dunbridge Road
Bowling Green, Ohio 43402

Re: Henry County, Campbell Soup Company, Hazardous Waste Notice of Violation, OHD 987046703, OHD 987023678, and OHD 005419171.

Dear Mr. Michael R. Terpinski:

This is in response to the notice of violation letter dated May 16, 2000. The following is our response and further explanation of the events that took place involving the temporary holding pit area.

Spent solvent from the former can manufacturing operations at the Napoleon Plant was stored in 55-gallon drums and eventually used as a boiler fuel supplement (Boiler and Industrial Furnace 'BIF' Small Quantity Burner Exemption). Over time solids accumulated in the drums made it difficult to handle. To alleviate the solids, two earth dikes were constructed using a natural clay liner and compacted. The overall dimensions totaled approximately 20 feet wide by 35 feet long, with a depth of 2 ½ feet.

This practice was discontinued and the partially filled dikes were decommissioned in 1983. A local contractor using sand and natural soil excavated the dikes and hauled the material to the Evergreen Landfill for disposal. The material was analyzed by Evergreen at the landfill for disposal.

The earthen dikes were a one-time construction to remove semi-liquid solids from the drums. The practice was discontinued in 1983 with the excavation of the dikes.

We became aware of this practice, as we indicated in our March 23rd, 2000 meeting with you, and we immediately conducted an assessment of the area that resulted in the report we submitted to you.

Campbell Soup plans to conduct a complete investigation to delineate the contamination in the former holding pit area. A work plan will be submitted to your office for review and approval before implementation. We, also, shall submit a closure plan for hazardous waste storage and disposal area, to the Ohio EPA as is required by the applicable regulations.

We will call your office to arrange for a meeting to discuss the work plan and the various closure strategies.

Sincerely,

M. N. Maringer

Michael N. Maringer
Manager, Services & Utilities
Campbell Soup Supply Co.
P.O. Box 311
Napoleon, Ohio 43545
Ph. 419.592.1010 - Extension 6343

cc: Dr. O. Aly, Director of Environmental Affairs
Mr. R. Furbee, Vice President of Central Region

Re: Henry County
Campbell's Soup Company
OHD 987046703, OHD 987023678,
and OHD 005419171
Hazardous Waste
Notice of Violation

May 16, 2000

Mr. Michael Maringer
Manager, Service and Utilities
Campbell's Soup Company
East Maumee Avenue
Napoleon, Ohio 43545

Dear Mr. Maringer:

On March 23, 2000, a meeting between Campbell's and the Ohio Environmental Protection Agency (Ohio EPA) was held at Ohio EPA's Northwest District Office (NWDO). Campbell's was represented by Dr. Osman Aly and yourself. Ohio EPA was represented by Lorma Wendt (DHWM) and myself.

The following information was revealed during the March 23, 2000 meeting:

> While responding to an Ohio EPA request for information relating to the Imthurn drum site investigation, Campbell's conducted numerous employee interviews. These interviews led to the discovery of another predicament from Campbell's past.
>
> Campbell's is a manufacturer of soups, sauces, pork and beans, Splash fruit and vegetable juice, and V-8 vegetable juice. Cans were manufactured on-site until July 1998. Coating machines applied a rust inhibitor, similar to an enamel paint, to the 2-piece steel cans to increase durability. The coating machines needed periodic cleaning (performed with solvents classified as both listed and characteristically-hazardous wastes), thus generating hazardous waste.
>
> The coating material waste consisted of two phases; a liquid phase and a sludge-like phase. Approximately 2000 of these drums from the canning plant were stored on-site behind the container plant on a concrete pad. Dr. Aly stated that during the energy crisis of the late 1970s, Mr. Ellis Imthurn approached Campbell's and asked if he could have the drums to use the waste to fuel the boilers in the abandoned school in which he resided. Dr. Aly stated that this was a one-time agreement that concluded in 1979. According to both Dr. Aly and yourself, the drums were simply stored on-site at the Napoleon plant from 1980 to 1981. According to Campbell's, the liquid phase was either burned directly in Campbell's boilers or placed on a coal pile, then burned in the boilers from 1981 to January 1993.

The semi-solid phase of this waste was not amenable to burning. Therefore, too many drums of the combined waste were being generated (you stated that approximately 22 to 100 gallons of the liquid phase waste was poured on the coal pile per month). The liquid phase was siphoned off and burned in the boilers. The semi-solid phase was dumped into two on-site holding pits from 1981 to 1983. The pits were reportedly lined with natural clay that was obtained on-site and compacted prior to placement of any sludges. You stated that the pits totaled approximately 20 feet by 40 feet and were 2½ to 3 feet deep. There was roughly 2 feet of waste in each pit. In 1983, the material was excavated and disposed of at Evergreen Landfill in Northwood, Ohio. The sludge was mixed with sand prior to off-site disposal.

The coating material waste was classified as a hazardous waste because of its ignitability. However, soil sampling data from the former pit area shows concentrations of compounds (xylene, acetone, methyl isobutyl ketone, ethyl benzene, and methyl ethyl ketone) typically found in F-listed hazardous wastes. Material Safety Data Sheets (MSDSs) for the coating materials and solvents used at the Napoleon plant in the early 1980s provided by Campbell's on April 21, 2000, confirms the presence of these materials. Therefore, the materials disposed of in the holding pit were listed hazardous wastes as well.

On December 2 and 3, 1999, HSI GeoTrans conducted sampling at the former holding pit area. The area was identified based on interviews with Campbell's employees. The results of the sampling were presented in a report titled Limited Subsurface Soil Investigation: Former Holding Pit Area received March 23, 2000. The report shows residual volatile organic chemical (VOC) contamination at depths as great as 10 feet below ground surface as a result of Campbell's former waste management techniques.

Because Campbell's has performed unpermitted treatment (evaporation of materials dumped in the holding pits), storage (from 1980 to 1981), and disposal (from 1981-1983) of hazardous waste, they are in violation of the following hazardous waste law:

1. Chapter 3734.02 (E) of the Ohio Revised Code states in part that: "[N]o person shall establish or operate a hazardous waste facility, or use a solid waste facility for the storage, treatment, or disposal of any hazardous waste, without a hazardous waste facility installation and operation permit from the hazardous waste facility board..."

   Campbell's storage of hazardous waste on-site from 1980 to 1981 constitutes unpermitted storage of hazardous waste. Campbell's is a Large Quantity Generator (LQG) of hazardous waste, and may only store waste on-site for ninety (90) days.

   When the semi-solid hazardous wastes were dumped into the holding pits on Campbell's property, they dried and were mixed with sand prior to off-site disposal at Evergreen Landfill in Northwood, Ohio. This evaporation constitutes unpermitted treatment of hazardous waste. The mixing of this material with sand may also constitute unpermitted treatment if the sand were introduced before the waste hardened.

The hazardous wastes dumped into on-site holding pits at Campbell's from 1981 to 1983 also constitutes improper disposal of hazardous waste. Campbell's does not have a RCRA Part B permit allowing for the treatment, storage, or disposal of hazardous waste.

Please respond, in writing, to this Notice of Violation (NOV) within ten (10) days. Your response must include all actions and timetables necessary to demonstrate compliance. *In addition, a copy of the closure plan for the hazardous waste storage and disposal areas must be submitted to Ohio EPA, NWDO within ninety (90) days of receipt of this letter.* Please call me to arrange a meeting to discuss the document entitled Limited Subsurface Soil Investigation: Former Holding Pit Area. The meeting will also be helpful in discussing various closure strategies available to Campbell's.

Failure to list specific deficiencies in this letter does not relieve you from the responsibility of complying with all applicable regulations.

If you have any questions, feel free to contact me at 419-373-3070.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/sw

pc: Frances Kovac, Legal, CO
Lorma Wendt, DHWM, NWDO
Cindy Lohrbach, DHWM, NWDO
DHWM, NWDO File
ec: Colleen Weaver, DHWM, NWDO

Campbell's

Campbell SOUP Company

RECEIVED
APR 21 2000
OHIO E.P.A.
N.W.D.O.

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Director – Environmental Affairs

Telephone#: 856-968-4423
Fax#: 856-968-2808/2809

April 20, 2000

Mr. Michael R. Terpinski
Ohio EPA
Division of Hazardous Waste Management
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402

Dear Mr. Terpinski:

Per our telephone discussion, please find enclosed a copy of all the available MSDS date sheets for the coating materials and solvents used at our Napoleon Plant during the early 1980's.

The sludges from some of the spent materials but not all of them is expected to have been temporarily stored in the on-site holding pit.

Please give me a call at 856-968-4423 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

Osman. M. Aly, Ph.D.
Director – Environmental Affairs

OMA/dp
cc: M. Maringer
att.

MATERIAL SAFETY DATA SHEET

Reg
Ecoliner 5003 AL

Hi-Tek Polymers, Inc.
9808 Bluegrass Parkway
Louisville, Kentucky 40299

HMIS: Health- 2 Fire- 2 Reactivity- 0
Date Issued: 05/11/88 Supersedes: 04/21/86

Emergency Phone Number (502) 499-4040 (If no answer, (502) 499-4119)

I. IDENTIFICATION & PHYSICAL DATA

Product Name: Ecoliner 5003 AL

Product Class: Waterborne Modified Epoxy Can Lining

Manufacturer's I.D. : 029W038

D.O.T. Hazard Class: Combustible Liquid
D.O.T. Shipping Name: Combustible Liquid N.O.S.
D.O.T. UN Number: NA 1993

Evaporation Rate: Slower than Butyl Acetate

Percent Volatile by Volume: 69 **VOC:** 291.2 g/l

Boiling Range: 212-442 F

Vapor Density: Heavier than air

Weight Per Gallon: 8.7 lb.

Vapor Pressure at 20 C: <17.5 mm Hg

Solubility in Water: Miscible

Appearance and Odor: Opaque tan mobile liquid with characteristic solvent odor

II. HAZARDOUS INGREDIENTS

	CAS #	WT. %	OSHA PEL ppm	TWA TLV ppm	STEL TLV ppm
Bisphenol-A based epoxy resin	25068-38-6	20	---	---	---
n-Butanol	71-36-3	8	100	50* Ceiling	---
2-Butoxyethanol	111-76-2	5	50*	25*	
Diethylene glycol monobutyl ether	112-34-5	1	---	---	---
Xylene	1330-20-7	<2	100	100	150
Dimethyl ethanolamine	108-01-0	2	---	---	---

*Potential contribution to overall exposure is possible via skin absorption.
- Not established

All components of this product are listed on the TSCA registry.

III. FIRE & EXPLOSION DATA

Flashpoint: 117 F Setaflash **LEL:** <1.4 est.

Extinguishing Media:

Use carbon dioxide or dry chemical for small fires; aqueous foam or water for large fires.

Unusual Fire & Explosion Hazards:

Closed containers may explode (due to buildup of pressure) when exposed to extreme heat.

Special Fire Fighting Procedures:

Remove all ignition sources. Wear self-contained breathing apparatus and complete personal protective equipment when entering confined areas where potential for exposure to vapors or products of combustion exists.

IV. REACTIVITY DATA

Stability: Stable **Hazardous Polymerization:** Will not occur

Conditions to Avoid:

Excessive heat.

Materials to Avoid:

No specific information available.

Hazardous Decomposition Products:

Fumes produced when heated to decomposition may include: carbon monoxide, carbon dioxide, formaldehyde.

To the best of our knowledge, the information contained herein is accurate. However Hi-Tek Polymers, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MATERIAL SAFETY DATA SHEET

Ecoliner Reg 5003 AL

Hi-Tek Polymers, Inc.
9808 Bluegrass Parkway
Louisville, Kentucky 40299

HMIS: Health- 2 Fire- 2 Reactivity- 0
Date Issued: 05/11/88 Supersedes: 04/21/86

Emergency Phone Number (502) 499-4040 (if no answer, (502) 499-4119)

I. IDENTIFICATION & PHYSICAL DATA

Product Name: Ecoliner 5003 AL

Product Class: Waterborne Modified Epoxy Can Lining

Manufacturer's I.D. : 029W038

D.O.T. Hazard Class: Combustible Liquid
D.O.T. Shipping Name: Combustible Liquid N.O.S.
D.O.T. UN Number: NA 1993

Evaporation Rate: Slower than Butyl Acetate

Percent Volatile by Volume: 69 **VOC:** 291.2 g/l

Boiling Range: 212-442 F

Vapor Density: Heavier than air

Weight Per Gallon: 8.7 lb.

Vapor Pressure at 20 C: <17.5 mm Hg

Solubility in Water: Miscible

Appearance and Odor: Opaque tan mobile liquid with characteristic solvent odor

II. HAZARDOUS INGREDIENTS

	CAS #	WT. %	OSHA PEL ppm	TWA TLV ppm	STEL TLV ppm
Bisphenol-A based epoxy resin	25068-38-6	20	---	---	---
n-Butanol	71-36-3	8	100	50* Ceiling	---
2-Butoxyethanol	111-76-2	5	50*	25*	
Diethylene glycol monobutyl ether	112-34-5	1	---	---	---
Xylene	1330-20-7	<2	100	100	150
Dimethyl ethanolamine	108-01-0	2	---	---	---

* Potential contribution to overall exposure is possible via skin absorption.
- Not established

All components of this product are listed on the TSCA registry.

III. FIRE & EXPLOSION DATA

Flashpoint: 117 F Setaflash **LEL:** <1.4 est.

Extinguishing Media:

Use carbon dioxide or dry chemical for small fires; aqueous foam or water for large fires.

Unusual Fire & Explosion Hazards:

Closed containers may explode (due to buildup of pressure) when exposed to extreme heat.

Special Fire Fighting Procedures:

Remove all ignition sources. Wear self-contained breathing apparatus and complete personal protective equipment when entering confined areas where potential for exposure to vapors or products of combustion exists.

V. REACTIVITY DATA

Stability: Stable **Hazardous Polymerization:** Will not occur

Conditions to Avoid:

Excessive heat.

Materials to Avoid:

No specific information available.

Hazardous Decomposition Products:

Fumes produced when heated to decomposition may include: carbon monoxide, carbon dioxide, formaldehyde.

To the best of our knowledge, the information contained herein is accurate. However Hi-Tek Polymers, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MATERIAL SAFETY DATA SHEET

Reg
Ecoliner 5004AL

HMIS: Health- 2 Fire- 2 Reactivity- 0
Date Issued: 05/11/88 Supersedes: 01/05/88

Hi-Tek Polymers, Inc.
9808 Bluegrass Parkway
Louisville, Kentucky 40299
Emergency Phone Numbers:
(502) 499-4040 (if no answer, (502) 499-4119)
CHEMTREC (800) 424-9300

I. IDENTIFICATION & PHYSICAL DATA

Product Name: Ecoliner 5004AL

Product Class: Waterborne Modified Epoxy Can Lining

Manufacturer's I.D. : 029W042

D.O.T. Hazard Class: Combustible Liquid
D.O.T. Shipping Name: Combustible Liquid N.O.S.
D.O.T. UN Number: NA 1993

Evaporation Rate: Slower than Butyl Acetate

Percent Volatile by Volume: 65 **VOC:** 194.1 g/l

Boiling Range: 244-442 F

Vapor Density: Heavier than air

Weight Per Gallon: 8.85 lb.

Vapor Pressure at 20 C: <4.4 mm Hg

Solubility in Water: Miscible

Appearance and Odor: Opaque tan viscous liquid with characteristic solvent odor

II. HAZARDOUS INGREDIENTS

	CAS #	WT. %	OSHA TWA ppm	OSHA STEL ppm	ACGIH TWA ppm	ACGIH STEL ppm
n-Butanol	71-36-3 YES	6	---	50* Ceiling	50* Ceiling	---
2-Butoxyethanol	111-76-2 NO	3	25*	---	25*	---
Diethylene glycol monobutyl ether	112-34-5 YES	<3	---	---	---	---
Dimethyl ethanolamine	108-01-0 NO	2	---	---	---	---
Bisphenol-A based epoxy resin	25068-38-6 NO	25	---	---	---	---

*Potential contribution to overall exposure is possible via skin absorption.
--- Not established

III. FIRE & EXPLOSION DATA

Flashpoint: 138 F Setaflash **LEL:** <1.4 est.

Extinguishing Media:

Use carbon dioxide or dry chemical for small fires; aqueous foam or water for large fires.

Unusual Fire & Explosion Hazards:

Closed containers may explode (due to buildup of pressure) when exposed to extreme heat.

Special Fire Fighting Procedures:

Remove all ignition sources. Wear self-contained breathing apparatus and complete personal protective equipment when entering confined areas where potential for exposure to vapors or products of combustion exists.

IV. REACTIVITY DATA

Stability: Stable **Hazardous Polymerization:** Will not occur

Conditions to Avoid:

Excessive heat.

Materials to Avoid:

No specific information available.

Hazardous Decomposition Products:

Fumes produced when heated to decomposition may include: carbon monoxide, carbon dioxide, oxides of nitrogen, formaldehyde.

To the best of our knowledge, the information contained herein is accurate. However Hi-Tek Polymers, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

V. HEALTH HAZARD DATA

Effects of Overexposure:

Ingestion: No specific information available.

Contains materials that may be moderately toxic.

Inhalation: No specific information available.

Contains materials that have the potential to cause headaches, nausea, dizziness, and respiratory irritation if inhaled.

Skin Absorption: No specific information available.

Contains materials that may be moderately toxic.

Skin Contact: No specific information available.

Contains materials that may cause moderate skin injury (reddening and swelling).

Eye Contact: No specific information available.

Contains materials that may cause severe eye injury -- damage reversible.

Chronic Effects of Overexposure: No specific information available.

Contains solvents which are reported to be associated with central nervous system damage after repeated and prolonged use.Contains solvents which may cause injury to liver, kidneys, bone marrow and blood cells after repeated overexposure. A lifetime inhalation study indicated animals exposed to levels of formaldehyde above TLV developed nasal cancer. Studies of occupationally exposed workers have shown no evidence of chronic effects such as cancer. Formaldehyde is listed by NTP and IARC.

Emergency & First Aid Procedures:

Eye Contact:

Flush with plenty of water for at least 15 minutes and seek medical attention.

Skin Contact:

Remove contaminated clothing and wash contact area with soap and water for 15 minutes.

Ingestion:

If appreciable quantities are swallowed, seek medical attention.

Inhalation:

In case of exposure to a high concentration of vapor or mist, remove person to fresh air. If breathing has stopped, administer artificial respiration and seek medical attention.

VI. SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled:

Dike spill. Absorb with inert material and collect for disposal. Flush area with water. Prevent washings from entering waterways. Spills may be reportable to the National Response Center (800-424-8802).

Waste Disposal Method:

Incinerate or use biological treatment in accordance with federal, state, and local regulations. This material is a hazardous waste under current RCRA regulations because of ignitability.

VII. SPECIAL PROTECTION INFORMATION

Respiratory Protection:

Wear a properly fitted NIOSH/MSHA approved respirator whenever exposure to vapor/mist is likely unless levels are below applicable limits.

Ventilation:

Local Exhaust - Recommended when appropriate to control employee exposure.

Mechanical - Not recommended as the sole means of controlling employee exposure.

Protective Gloves: For operations where contact can occur, wear impervious gloves (Neoprene).

Eye Protection: Chemical splash goggles.

Other Protective Equipment: For operations where contact can occur, a safety shower and eye wash facility should be available.

VIII. SPECIAL PRECAUTIONS

Avoid contamination of skin. Store above 40 F. DO NOT FREEZE. Do not apply to hot surfaces or use in areas where exposed to electric sparks. Keep away from fire and open flame. Ground containers when transferring from one to another. There is a potential for some release of formaldehyde during drying and curing operations. Oven designs usually provide for adequate exhaust, but you must review actual characteristics of your operations.

IX. STATE R-T-K COMPOSITION INFORMATION

Component	CAS #	WT %	PENNSYLVANIA	MASSACHUSETTS	CANADA
n-Butanol	71-36-3	6	YES	YES	YES
2-Butoxyethanol	111-76-2	3	YES	YES	YES
Diethylene glycol monobutyl ether	112-34-5	<3	NO	NO	YES
Dimethyl ethanolamine	108-01-0	2	YES	YES	NO

X. SARA Title III Section 313 Information

Component	CAS #	WT %
n-Butanol	71-36-3	6
2-Butoxyethanol	111-76-2	3
Diethylene glycol monobutyl ether	112-34-5	<3

XI. California Proposition 65 Information

This product does not contain any California Proposition 65 designated chemicals.

XII. Other Information

All components of this product are listed on the TSCA registry.

This notification may not be detached from the MSDS. Any copying and redistribution of the MSDS shall also include copying and redistribution of this notice as per 53 FR 4500, Feb. 16, 1988.

MATERIAL SAFETY DATA SHEET

Ecoliner 3610BL

HMIS: Health- 2 Fire- 2 Reactivity- 0
Date Issued: 03/22/89

Hi-Tek Polymers, Inc.
9808 Bluegrass Parkway
Louisville, Kentucky 40299
Emergency Phone Numbers:
(502) 499-4040 (if no answer, (502) 499-4119)
CHEMTREC (800) 424-9300

I. IDENTIFICATION & PHYSICAL DATA

Product Name: Ecoliner 3610BL

Product Class: Waterborne Modified Epoxy Can Lining

Manufacturer's I.D. : 029W054

D.O.T. Hazard Class: Combustible Liquid
D.O.T. Shipping Name: Combustible Liquid N.O.S.
D.O.T. UN Number: NA 1993

Evaporation Rate: Slower than Butyl Acetate

Percent Volatile by Volume: 72 **VOC:** 203.7 g/l

Boiling Range: 212-442 F

Vapor Density: Heavier than air

Weight Per Gallon: 8.7 lb.

Vapor Pressure at 20 C: <20 mm Hg

Solubility in Water: Miscible

Appearance and Odor: Opaque white mobile liquid with characteristic solvent odor

II. HAZARDOUS INGREDIENTS

	CAS #	WT. %	OSHA TWA ppm	OSHA STEL ppm	ACGIH TWA ppm	ACGIH STEL ppm
Bisphenol-A based epoxy resin	25068-38-6	23	---	---	---	---
n-Butanol	71-36-3	8	---	50* Ceiling	50* Ceiling	---
2-Butoxyethanol	111-76-2	3	25*	---	25*	---
Diethylene glycol monobutyl ether	112-34-5	1	---	---	---	---
Dimethyl ethanolamine	108-01-0	2	---	---	---	---
Melamine Resin	3089-11-0	>2	---	---	---	---
Formaldehyde	50-00-0	<0.01	3 5 Ceiling 10 ppm (30 minutes)	---	1	2

*Potential contribution to overall exposure is possible via skin absorption.
--- Not established

III. FIRE & EXPLOSION DATA

Flashpoint: 123 F Setaflash **LEL:** <1.4 est.

Extinguishing Media:

Use carbon dioxide or dry chemical for small fires; aqueous foam or water for large fires.

Unusual Fire & Explosion Hazards:

Closed containers may explode (due to buildup of pressure) when exposed to extreme heat.

Special Fire Fighting Procedures:

Remove all ignition sources. Wear self-contained breathing apparatus and complete personal protective equipment when entering confined areas where potential for exposure to vapors or products of combustion exists.

IV. REACTIVITY DATA

Stability: Stable **Hazardous Polymerization:** Will not occur

Conditions to Avoid:

Excessive heat.

Materials to Avoid:

No specific information available.

Hazardous Decomposition Products:

Fumes produced when heated to decomposition may include: carbon monoxide, carbon dioxide, oxides of nitrogen, formaldehyde.

To the best of our knowledge, the information contained herein is accurate. However Hi-Tek Polymers, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

V. HEALTH HAZARD DATA

Effects of Overexposure:

Ingestion: No specific information available.

Contains materials that may be slightly toxic.

Inhalation: No specific information available.

Contains materials that have the potential to cause headaches, nausea, dizziness, and respiratory irritation if inhaled.

Skin Absorption: No specific information available.

Contains materials that may be moderately toxic.

Skin Contact: No specific information available.

Contains materials that may cause moderate skin injury (reddening and swelling).

Eye Contact: No specific information available.

Contains materials that may cause severe eye injury -- damage reversible.

Chronic Effects of Overexposure: No specific information available.

Contains solvents which may cause injury to liver, kidneys, bone marrow and blood cells after repeated overexposure.A lifetime inhalation study indicated animals exposed to levels of formaldehyde above TLV developed nasal cancer. Studies of occupationally exposed workers have shown no evidence of chronic effects such as cancer. Formaldehyde is listed by NTP and IARC. Contains solvents which are reported to be associated with central nervous system damage after repeated and prolonged use.

Emergency & First Aid Procedures:

Eye Contact:

Flush with plenty of water for at least 15 minutes and seek medical attention.

Skin Contact:

Remove contaminated clothing and wash contact area with soap and water for 15 minutes.

Ingestion:

If appreciable quantities are swallowed, seek medical attention.

Inhalation:

In case of exposure to a high concentration of vapor or mist, remove person to fresh air. If breathing has stopped, administer artificial respiration and seek medical attention.

VI. SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled:

Dike spill. Absorb with inert material and collect for disposal. Flush area with water. Prevent washings from entering waterways. Spills may be reportable to the National Response Center (800-424-8802).

Waste Disposal Method:

Incinerate or use biological treatment in accordance with federal, state, and local regulations. This material is a hazardous waste under current RCRA regulations because of ignitability.

VII. SPECIAL PROTECTION INFORMATION

Respiratory Protection:

Wear a properly fitted NIOSH/MSHA approved respirator whenever exposure to vapor/mist is likely unless levels are below applicable limits.

Ventilation:

Local Exhaust - Recommended when appropriate to control employee exposure.

Mechanical - Not recommended as the sole means of controlling employee exposure.

Protective Gloves: For operations where contact can occur, wear impervious gloves (Neoprene).

Eye Protection: Chemical splash goggles.

Other Protective Equipment: For operations where contact can occur, a safety shower and eye wash facility should be available.

VIII. SPECIAL PRECAUTIONS

Avoid contamination of skin. Store above 40 F. DO NOT FREEZE. Do not apply to hot surfaces or use in areas where exposed to electric sparks. Keep away from fire and open flame. Ground containers when transferring from one to another. There is a potential for some release of formaldehyde during drying and curing operations. Oven designs usually provide for adequate exhaust, but you must review actual characteristics of your operations.

IX. STATE R-T-K COMPOSITION INFORMATION

Component	CAS #	WT %	PENNSYLVANIA	MASSACHUSETTS	CANADA
n-Butanol	71-36-3	8	YES	YES	YES
2-Butoxyethanol	111-76-2	3	YES	YES	YES
Diethylene glycol monobutyl ether	112-34-5	1	NO	NO	YES
Dimethyl ethanolamine	108-01-0	2	YES	YES	NO
Formaldehyde	50-00-0	<0.01	YES	YES	YES

X. SARA Title III Section 313 Information

Component		CAS #	WT %
n-Butanol	Yes	71-36-3	8
2-Butoxyethanol		111-76-2	3
Diethylene glycol monobutyl ether	Yes	112-34-5	1
Formaldehyde	Yes	50-00-0	<0.01

XI. California Proposition 65 Information

This product contains the following chemicals that have been designated as cancer and/or reproductive hazards under California Proposition 65.

Component	CAS #	Wt %
Formaldehyde	50-00-0	<0.01

XII. Other Information

All components of this product are listed on the TSCA registry.

This notification may not be detached from the MSDS. Any copying and redistribution of the MSDS shall also include copying and redistribution of this notice as per 53 FR 4500, Feb. 16, 1988.

SUPERCEDES ALL PRIOR MATERIAL SAFETY DATA SHEETS

HMIS: H2 F2 R1

Date Prepared: April 7, 1989

PREPARED-FOR:

CAMPBELL SOUP COMPANY
MAUNEE AVENUE A.V.
NAPOLEON OH 43545

PREBARED-BY:

RELIANCE UNIVERSAL - ZION
1915 INDUSTRIAL AVENUE
ZION ILLINOIS 60099

Emergency Phone Number: (312) 872-1000

Information Number: (312) 872-1000

Tradename: NA

Product No. [redacted]

Product - Class: 350-84-RU42

SECTION II - HAZARDOUS INGREDIENTS

Hazardous Ingredients	CAS No.	Occupational Exposure Limits TLV	PEL	UNITS	Vapor Pres. mmHg/F
PROPRIETARY	NA	NA	NA		.5 @ 68
PROPRIETARY	-	50.	50.	ppm	.8 @ 68
PRPRIEATARY	-	NA	NA		< .1 @ 68
PROPRIETARY	-	NA	NA		.9 @ 68
PROPRIETARY	-	100.	NA	ppm	NA

#This material is subject to reporting under SARA TITLE III, Section 313

SECTION IIa - ADDITIONAL HEALTH DATA

Ingredient	ORAL LD50	DERMAL LD50	INHALATION LC50
PROPRIETARY	4000. mg/kg RAT.	13500. mg/Kg RABBIT	
TLV-STEL: NA		TLV-CEIL: NA	
PEL-STEL: NA		PEL-CEIL: NA	
PROPRIETARY	RAT 29000. mg/kg	> 3000. mg/Kg RABBIT	
TLV-STEL: NA		TLV-CEIL: NA	
PEL-STEL: NA		PEL-CEIL: NA	

Copies to Bookholders: ~~Coil Line & Enamel Ovens office~~
Pressroom office
Can Assembly office

SECTION VI - REACTIVITY DATA

MATERIAL IS UNSTABLE UNDER NON-EMERGENCY CONDITIONS.

HAZARDOUS POLYMERIZATION MAY OCCUR.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon, various hydrocarbons, aldehydes, acids, hydrogen fluoride.

CONDITIONS TO AVOID: heat, open flame, sparks. Storage 6 months past container date.

MATERIALS TO AVOID: alkali, acids, oxidizers, water amines.

SECTION VII - SPILL AND LEAD PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition. Wear appropriate safety equipment as listed in section VIII; assume for all Hazardous ingredients listed in section II, that TLV, PEL and LEL limits will be exceeded. Absorb on inert material and dispose of as below.

WASTE DISPOSAL METHOD: Dispose of in accordance with Federal, State and local regulations.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below application limits. Follow respirator manufacturer's directions for respirator use.

VENTILATION: Sufficient ventilation must be provided to maintain airborne concentrations below TLV, PEL and LEL limits, as listed in section II.

PROTECTIVE GLOVES: Synthetic or rubber gloves are recommended as a good personal hygiene practice.

EYE PROTECTION: Safety glasses with side shields should be worn.

OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower should be provided.

HYGIENIC PRACTICES: Good personal hygiene practices are required at all times when handling chemicals. These practices include, but are not limited to washing when safety equipment is removed, at the end of each shift or when going on breaks and especially if contamination occurs.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep containers closed when not in use. Use oldest inventory first. Store in a clean, dry area. Store below 100 degrees Fahrenheit. Avoid exposure to light. Store away form ignition sources.

OTHER PRECUATIONS: Empty container may retain product resides (vapor or liquid). All precautions must be observed.

DISCLAIMER: While RELIANCE UNIVERSAL - ZION believes that the data contained herein are accurate and derived from qualified sources the data are not to be taken as a warranty or representation for which RELIANCE UNIVERSAL - ZION assumes legal responsibility. They are offered solely for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State and local laws and regulations.

MATERIAL SAFETY DATA SHEET

NPCA 1-

SCM CORPORATION
Form 3001 Printed in U.S.A. 5/77

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor Essentially Similar to Form OSHA-20)

DATE OF PREP 12/13/84

Section I

MANUFACTURER'S NAME
SCM - GLIDDEN COATINGS & RESINS DIVISION

STREET ADDRESS
925 EUCLID AVENUE

CITY, STATE, AND ZIP CODE
CLEVELAND, OHIO 44115

EMERGENCY TELEPHONE NO
216-826-5566

PRODUCT CLASS
CONTAINER COATING

MANUFACTURERS CODE IDENTIFICATION
642-L-500

TRADE NAME COLD W/R SPRAY LINER

Section II — HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT WGT.	TLV PPM	TLV mg/M³	LEL	VAPOR PRESSURE
ETHYLENE GLYCOL MONOBUTYL ETHER	8	25(SKIN)		1.1	1.0
BUTANOL	8	C50(SKIN)		1.4	4.0
DIMETHYLAMINOETHANOL	2			7.1	4.4

Section III — PHYSICAL DATA

BOILING RANGE 243 TO 343°F

VAPOR DENSITY [X] HEAVIER. [ ] LIGHTER THAN AIR

EVAPORATION RATE [ ] FASTER [X] SLOWER. THAN ETHER

PERCENT VOLATILE BY VOLUME 83.7

WEIGHT PER GALLON 8.5

Section IV — FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY PAINT
COMBUSTIBLE LIQUID, UN1263

FLASH POINT
124°F, SETA

LEL
1.1

EXTINGUISHING MEDIA
CARBON DIOXIDE, DRY CHEMICAL OR FOAM.

UNUSUAL FIRE AND EXPLOSION HAZARDS
CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT OR FIRE.
VAPORS MAY IGNITE.

IAL FIRE FIGHTING PROCEDURES
WATER MAY BE INEFFECTIVE ON FIRE BUT WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS EXPOSED TO EXTREME HEAT OR FIRE TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION.

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: NONE ESTABLISHED FOR THIS PRODUCT. SEE SECTION II.

EFFECTS OF OVEREXPOSURE: IRRITATION OF EYES, SKIN, AND RESPIRATORY TRACT.
POSSIBLE DERMATITIS ON REPEATED AND PROLONGED SKIN CONTACT.
HEADACHE AND DIZZINESS LIKELY WITH VAPOR INHALATION.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: MOVE PERSON TO WELL VENTILATED AREA. RESTORE BREATHING. GET MEDICAL ATTENTION.
SKIN CONTACT: WIPE WITH CLEAN CLOTH, WASH THOROUGHLY WITH SOAP AND WATER.
EYE CONTACT: FLUSH THOROUGHLY WITH WATER, GET MEDICAL ATTENTION.
INGESTION: GET MEDICAL ATTENTION IMMEDIATELY.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID

INCOMPATABILITY (Materials to avoid) NONE KNOWN.

HAZARDOUS DECOMPOSITION PRODUCTS

CARBON MONOXIDE, CARBON DIOXIDE, POSSIBLE OXIDES OF NITROGEN.

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

REMOVE ALL SOURCES OF IGNITION. VENTILATE AREA. MOP SPILLS WITH INERT ABSORBENT.

WASTE DISPOSAL METHOD

SPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

USE NIOSH APPROVED RESPIRATOR WITH CHEMICAL-MECHANICAL FILTER.
IN CONFINED AREAS USE APPROVED SUPPLIED AIR APPARATUS.

VENTILATION

PROVIDE DILUTION VENTILATION OR LOCAL EXHAUST TO PREVENT BUILD-UP OF VAPORS.

PROTECTIVE GLOVES: SOLVENT RESISTANT GLOVES.
EYE PROTECTION: SPLASH PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT: IMPERVIOUS CLOTHING.

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

STORE BELOW 100 DEGREES F. KEEP CONTAINERS CLOSED AND UPRIGHT WHEN NOT IN USE.
KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.

OTHER PRECAUTIONS

AVOID PROLONGED CONTACT WITH SKIN OR BREATHING OF VAPOR.
DO NOT TAKE INTERNALLY.
: ONLY WITH ADEQUATE VENTILATION.
OR PROFESSIONAL USE AND APPLICATION ONLY.

DATE OF PREP. 2-18-85

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

Coverall

Section I

MANUFACTURER'S NAME: Clement "Coverall" Company

STREET ADDRESS: 623 Van Hook Street, Camden, NJ 08104

MAILING ADDRESS: P.O. Box 557, Camden, NJ 08101

TELEPHONE NUMBERS:

EMERGENCY: 800-424-9300 CHEMTREC

EMERGENCY: 609-429-0723 CLEMENT

INFORMATION: 609-964-9042 BUSINESS HOURS

HMIS RATINGS (NCPA)			
HEALTH	3	REACTIVITY	0
FLAMMABILITY	2	PERS.PROTEC.EQUIP.	D

PRODUCT CLASS

EPOXY ESTER/MELAMINE WATERWASH CONCENTRATE

MANUFACTURER'S CODE

P-1130-W-5 (2346B)

Section II—HAZARDOUS INGREDIENTS

INGREDIENTS		C.A.S. NUMBER	WT. PERCENT	EXPOSURE LIMITS-TWA TLV	PEL	VAPOR PRESSU
ETHYLENE GLYCOL MONOBUTYL ETHER	Yes	111-76-2	20	25 ppm (Skin)	50 ppm	0.6
CYCLOHEXANOL	No	108-93-0	8	50 ppm	N/A	1.0
ISOBUTYL ALCOHOL	No	78-83-1	4	100 ppm	N/A	N/A
DMAMP - 80	No	7005-47-2	6	NOT ESTABLISHED		41@38°

Section III—PHYSICAL DATA

BOILING RANGE (°F): 208-340 VAPOR DENSITY: [xx] HEAVIER [ ] LIGHTER THAN AIR

EVAPORATION RATE: [ ] FASTER [xx] SLOWER THAN ETHER PERCENT VOLATILE BY VOLUME: 42 WEIGHT PER GALLON: 8.4

Section IV—FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: COMBUSTIBLE OSHA Class II FLASH POINT (SETAFLASH): 122 °F LEL 2.4

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Avoid sources of ignition. Ground all transfer equipment. Closed containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES: Water spray (fog nozzles) may be used for cooling closed containers. Full protective equipment should be used by firefighters to protect them from hazardous decomposition products listed in Section VI.

Section V—HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF OVEREXPOSURE:
Severe eye irritation, drying of skin.
Excessive inhalation causes headache, dizziness, nausea.

EMERGENCY AND FIRST AID PROCESURES: In case of skin contact, wash thoroughly with soap and water; for eyes, flush immediately with plenty of water for 15 minutes and call a physician. Remove and wash contaminated clothing before reuse. If exposed to high concentration of vapor remove patient to fresh air. If swallowed, CALL A PHYSICIAN IMMEDIATELY. INDUCE VOMITING.

Section VI—REACTIVITY DATA

STABILITY: ☐ UNSTABLE ☒ STABLE
INCOMPATIBILITY (Materials to avoid): Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: As with any organic chemical, thermal decomposition will yield carbon dioxide and probably carbon monoxide.
HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR
CONDITIONS TO AVOID: Sources of ignition, high temperatures.

Section VII—SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove sources of ignition, ventilate and remove with inert absorbent.
WASTE DISPOSAL METHOD: Incinerate in approved facility in accordance with local, state and federal regulations. Do not incinerate closed container.

Section VIII—SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH approved respiratory device may be used. But, under normally well ventilated conditions no respiratory problems may be expected.

VENTILATION: All application areas should be ventilated in accordance with OSHA regulations.

PROTECTIVE GLOVES: Recommended.

EYE PROTECTION: Use approved safety eyewear with splash guards.

OTHER PROTECTIVE EQUIPMENT: Safety shower and eye bath.

Section IX—SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep away from heat, sparks and open flame. Use only with adequate ventilation. Since emptied containers retain product residue (vapor c liquid), all labeled hazard precautions must be observed.

OTHER PRECAUTIONS: Avoid prolonged or repeated breathing of vapor or spray mist. Avoid contact with eyes and skin. Do not take internally.

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.

MATERIAL SAFETY DATA SHEET

(Approved by U.S. Department of Labor "Essentially Similar" to Form LSB-00S-4)

INMONT

Section I

MANUFACTURER'S NAME	INMONT CORPORATION
Date Prepared:	1/28/83
STREET ADDRESS	1754 Dana Avenue
By:	M. M. Segal
CITY, STATE, AND ZIP CODE	Cincinnati, Ohio 45207
EMERGENCY TELEPHONE NO.	(513) 841-6100 (201) 365-3513 - 3400 800 - 424-9300 (CHEMTREC)
CHEMICAL NAME AND SYNONYMS	Clear Side Stripe Enamel
TRADE NAME	X112-112
CHEMICAL FAMILY	Modified Acrylic
FORMULA	N.A.

Section II – HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS

PIGMENTS	%	TLV (Units)	SOLVENTS TLV (TWA) data in PPM unless otherwise noted;	%	TLV (Units
N. A.			Mixture (See below)	50.2	N.A.
CATALYST			ADDITIVES		
N. A.			N. A.		
VEHICLE			OTHERS		
N. A.			N. A.		

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES		%	TLV (Units
Aromatic 150	No	25.3	100
Cellosolve Acetate	No	12.1	50
Cylcohexanone	Yes	8.8	50
Xylene	✓	4.0	100

Section III – PHYSICAL DATA

BOILING POINT (°F)	274 - 405	SPECIFIC GRAVITY (H_2O=1)	0.996
VAPOR PRESSURE (mm Hg.) @ 25° C.	< 1 - 6.0	PERCENT VOLATILE BY VOLUME (%)	54.5
VAPOR DENSITY (AIR=1)	3.4 - 4.8	EVAPORATION RATE (.....=1)	---
SOLUBILITY IN WATER	Negligible	BUTYL ACETATE = 1	0.04 - 0.6
APPEARANCE AND ODOR	Clear; v. high viscosity; hydrocarbon, ester, ketone		

Section IV – FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED)	109°F P-M Closed Cup	FLAMMABLE LIMITS	Lel 0.9% / Uel 8.6%

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, ALCOHOL FOAM

SPECIAL FIRE FIGHTING PROCEDURES: USE WATER SPRAY TO KEEP CONTAINERS COOL

UNUSUAL FIRE AND EXPLOSION HAZARDS: EXPOSURE OF CONTAINERS TO EXCESSIVE HEAT MAY CAUSE DISRUPTIVE PRESSURE.

Section V – HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: See Section II

EFFECTS OF OVEREXPOSURE: Prolonged exposure or excessive inhalation may cause drowsiness, dizziness, nausea, skin or eye irritation.

EMERGENCY AND FIRST AID PROCEDURES: If over exposure occurs, remove person to fresh air; wash irritated eyes with copious amounts of water; wash red or irritated skin with like warm water.

SEEK MEDICAL ATTENTION IF NEEDE

FOR INGESTED HYDROCARBONS (SEE SECTION TWO) DO NOT INDUCE VOMITING – CALL PHYSICIAN

Section VI – REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	High temperature or heat.

INCOMPATABILITY *(Materials to avoid)*: OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION PRODUCTS: UNKNOWN

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

Section VII – SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Wipe up immediately – ventilate.

Remove ignition sources.

VENTILATE IN PATTERN AND VOLUME TO STAY BELOW TLV'S AND LEL'S IN SECTIONS TWO AND FOUR.

WASTE DISPOSAL METHOD: DISPOSAL SHOULD BE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. FOR FLAMMABLE AND COMBUSTIBLE SOLVENT BASED SYSTEMS, INCINERATE – NOT IN CLOSED CONTAINERS. FOR SOLIDS AND MOST AQUEOUS SYSTEMS, DISPOSE OF IN APPROVED SANITARY LAND FILL.

Section VIII – SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*: ADSORPTION MASK – HYDROCARBON VAPOR CANNISTER

VENTILATION: COMPLY WITH OSHA 1910.94	LOCAL EXHAUST: 11 – 12 CHANGES PER HOUR	SPECIAL
	MECHANICAL *(General)*: EXPLOSION PROOF MOTOR	OTHER: NO SMOKING OR OPEN LIGHTS

PROTECTIVE GLOVES: INSOLUBLE RUBBER GLOVES

EYE PROTECTION: SAFETY GLASSES OR GOGGLES

OTHER PROTECTIVE EQUIPMENT: FOR HIGHLY CORROSIVE MATERIALS, RUBBER BOOTS AND/OR APRON MAY BE REQUIRED, REMOVE CONTAMINATED CLOTHING AND SHOES – DISCARD WHERE CLEAN-UP MAY NOT BE POSSIBLE.

Section IX – SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: USE VENTILATED AREA (EQUIVALENT TO OUT OF DOORS)

ORE PER OSHA 1910.106: AVOID HIGH TEMPERATURES – STORE BELOW 120° F

OTHER PRECAUTIONS: AVOID PROLONGED CONTACT WITH SKIN AVOID CONTACT WITH EYES

GROUND CONTAINERS WHEN POURING FOR INDUSTRIAL USE ONLY

DO NOT HANDLE UNTIL MANUFACTURER'S PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD.

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS, AND RELATED MATERIALS

3810

SECTION I - GENERAL SUPPLIER DATA

MANUFACTURER'S NAME: TECHNICAL COATINGS CO. DATE PREPARED: 4/22/83

ADDRESS: NORTH & 25TH AVENUES
MELROSE PARK, IL 60160

EMERGENCY TELEPHONE NO.: Day: 312/343-6000

PRODUCT CLASS: MODIFIED ACRYLIC CAMPBELL'S CODE: [redacted]

TRADE NAME: [redacted] MANUFACTURER'S CODE: 17254-A

SECTION II - HAZARDOUS MATERIALS

INGREDIENT	WT.%	TLV (PPM)	LEL	VAPOR PRESSURE
GLYCOL ETHER W/BS	51	50	1.1	1.0
ESTERS N.	21	50	1.8	2.0

SECTION III - PHYSICAL DATA

BOILING RANGE: 295-340°F. % VOLATILE BY VOLUME: 72 WT./GAL.: 8.2 (lbs.)

EVAPORATION RATE: (X) SLOWER THAN ETHER ( ) FASTER VAPOR DENSITY (X) HEAVIER ( ) LIGHTER THAN

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: Combustible Liquid, Class IIIA FLASH POINT: 125°F LEL:

EXTINGUISHING MEDIA: The National Fire Protection Association (NFPA) classifies burning liquids ıe Class B fires. Therefore, any approved Class B fire extinguisher, or extinguishing agent ma; used for firefighting purposes.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Isolate from heat, electric equipment, sparks and open flame. Closed containera may explode when exposed to extreme heat. A cation to hot surfaces requires special precautions. During emergency conditions overexposure t decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obt ·dial attention.

CIAL FIRE FIGHTING PROCEDURES: Full protective equipment including self-contained breathing paratus should be used. Water spray may be ineffective. If water is used, fog nozzles are prefe Water may be used to cool closed containers to prevent pressure build-up and possible autoignit or explosion when exposed to extreme heat.

4/22/83 D. E. Stoner CONTAINER RESEARCH J. Fisher CONTAINER PRODUCTION

CAMPBELL CONTAINER COMPA.. R – I – 23B

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS, AND RELATED MATERIALS

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF OVEREXPOSURE: Inhalation: Anesthetic. Irritation of the respiratory tract or acute nervous system depression characterized by the following progressive steps; acute - headache, dizziness, staggering gait, confusion, unconsciousness, or coma. Skin or Eye Contact: Primary irritation. chronic - none recognized.
EMERGENCY AND FIRST AID PROCEDURES: Vapors: Remove from exposure. Restore breathi Keep warm and quiet. Notify a physician. Splash (Eyes): Flush immediately with large amounts of water for at least 15 min. Take to a physician for medical treatment. Splash (Skin): Wash affected areas with water. Remove contaminated clothing, consult a physician.

SECTION VI - REACTIVITY DATA

STABILITY: ○ UNSTABLE ⊗ STABLE

HAZARDOUS POLYMERIZATION: ○ MAY OCCUR ⊗ WILL NOT OCCU

INCOMPATIBILITY (Materials to avoid): Unknown

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide in the case of incomplete combustic

CONDITIONS TO AVOID: Elevated temperatures.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Remove all sources of ignition. Avoid breathing vapors. Spread absorbent on spill area and remove with non-sparking tools to container filled with water. Keep out of streams and waterways.
WASTE DISPOSAL METHOD: Conventional procedures complying with local, state and federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

Use Bureau of Mines mask for "open, restricted and confined areas".

VENTILATION: Vent fumes emitted on heating. Keep below TLV and LEL levels.

PROTECTIVE GLOVES: Required during repeated contact.
EYE PROTECTION: Safety goggles.
OTHER PROTECTIVE EQUIPMENT: Clothing adequate to protect skin; eye bath; safety shower

4/22/83 D A Toner CONTAINER RESEARCH J. Fisher CONTAINER PRODUCTION

CAMPBELL CONTAINER COMPANY

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS, AND RELATED MATERIALS

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
Keep away from heat, sparks and open flame.

OTHER PRECAUTIONS:
Avoid prolonged contact with skin and breathing vapors.

4/22/83

D. F. Tone
CONTAINER RESEARCH

J. Fisher
CONTAINER PRODUCTION

MATERIAL SAFETY DATA SHEET

(Approved by U.S. Department of Labor "Essentially Similar" to Form LSB-OOS-4)

PRODUCT NAME: METHYL ETHYL KETONE

CHEMICAL NAME: —

CHEMICAL FAMILY: Ketones

FORMULA: $CH_3COC_2H_5$

MOLECULAR WEIGHT: 72.10

SYNONYMS: 2-Butanone

I. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	79.6°C. (175.3°F.)	FREEZING POINT	−86.6°C.
SPECIFIC GRAVITY (H_2O = 1)	0.8061 at 20/20°C.	VAPOR PRESSURE AT 20°C.	74 mm. Hg
VAPOR DENSITY (air = 1)	2.5	SOLUBILITY IN WATER, % by wt.	24
PER CENT VOLATILES BY VOLUME	100	EVAPORATION RATE (Butyl Acetate = 1)	5.7
APPEARANCE AND ODOR	Clear liquid; nonresidual odor.		

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV (Units)
2-Butanone (Methyl Ethyl Ketone)	~100	200 ppm.
(See Sections III through VIII)		

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT [test method(s)]	24°F., Tag closed cup ASTM D 56 22°F., Tag open cup ASTM D 1310

FLAMMABLE LIMITS IN AIR, % by volume	LOWER	1.8	UPPER	10

EXTINGUISHING MEDIA	Use carbon dioxide or dry chemical for small fires. Use alcohol-type foam or water fog for large fires.
SPECIAL FIRE FIGHTING PROCEDURES	None
UNUSUAL FIRE AND EXPLOSION HAZARDS	None

EMERGENCY PHONE NUMBER

304/744-3487

This number is available days, nights, weekends, and holidays.

While Union Carbide Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data are not to be taken as a warranty or representation for which Union Carbide Corporation assumes legal responsibility. They are offered solely for your consideration, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State, and local laws and regulations.

IV. HEALTH HAZARD DATA

.ESHOLD LIMIT VALUE	200 ppm. ACGIH (1977) OSHA CFR 29§1000 Table G1
EFFECTS OF OVEREXPOSURE	Irritation of nose, throat, and eyes. Headache, nausea, vomiting.
EMERGENCY AND FIRST AID PROCEDURES	Remove to fresh air and call a physician. Flush skin and eye contact with water. If swallowed, induce vomiting and call a physician.

V. REACTIVITY DATA

STABILITY			
UNSTABLE	STABLE	CONDITIONS TO AVOID	None
—	√		

INCOMPATIBILITY (materials to avoid)	Avoid alkaline materials, mineral acids, halogens
:ARDOUS .OMPOSITION PRODUCTS	Burning can produce carbon monoxide and/or carbon dioxide.

HAZARDOUS POLYMERIZATION			
May Occur	Will not Occur	CONDITIONS TO AVOID	None
—	√		

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Eliminate all sources of ignition. Wear suitable protective equipment. Collect for disposal. See Section VIII.
WASTE DISPOSAL METHOD	Incinerate in a furnace where permitted under appropriate Federal, State, and local regulations.

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)		Air-supplied respirator in high concentrations		
VENTILATION	LOCAL EXHAUST	May be needed	SPECIAL	—
	MECHANICAL (general)	✓	OTHER	—
PROTECTIVE GLOVES		Rubber gloves	EYE PROTECTION	Safety glasses
OTHER PROTECTIVE EQUIPMENT		Safety shower and eye bath		

VIII. SPECIAL PRECAUTIONS

PRECAUTIONARY LABELING

METHYL ETHYL KETONE

WARNING! HARMFUL IF INHALED
FLAMMABLE
CAUSES EYE IRRITATION

Avoid breathing vapor.
Avoid contact with eyes.
Keep away from heat, sparks, and open flame.
Use with adequate ventilation.
Wash thoroughly after handling.

FIRST AID: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

FOR INDUSTRY USE ONLY

OTHER HANDLING AND STORAGE CONDITIONS

Incineration is the preferred method of disposal. It should also be feasible to treat very dilute solutions in a water treatment plant.

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME OR NUMBER (AS IT APPEARS ON LABEL)
VINYL SOLVENT 1391 [redacted]

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
GROW GROUP, INC.	313-643-4600

ADDRESS (NUMBER, STREET, CITY, STATE AND ZIP CODE)
3155 WEST BIG BEAVER ROAD, SUITE 200 P.O. BOX 7026 TROY, MICHIGAN 48007-7026

MANUFACTURER'S D-U-N-S NO.
00-532-0551

HAZARDOUS MATERIALS DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS ID NO.
PAINT RELATED MATERIAL NA-1263

ADDITIONAL HAZARD CLASSES (AS APPLICABLE)
FLAMMABLE LIQUID

CHEMICAL FAMILY	FORMULA
SOLVENT BLEND	SOLVENT BLEND

SECTION II - INGREDIENTS

CAS REGISTRY NO.	%V	%W	CHEMICAL NAMES	LISTED AS A CARCINOGEN IN NTP IARC OR OSHA 1910
1330-20-7	45-55		XYLOL	
108-10-1	45-55		METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	

SECTION III - PHYSICAL DATA

BOIL RANGE 234-278 XX °F °C	SPECIFIC GRAVITY (H_2O=1) 0.8265
VAPOR PRESSURE 7.5	PERCENT VOLATILE BY VOLUME 100%
@ 68°F °C XX MM Hg PSI	PERCENT SOLID BY WEIGHT 0%
VAPOR DENSITY (AIR=1) 3.572	EVAPORATION RATE SLOWER THAN ETHER
SOLUBILITY IN WATER 2%	pH NOT APPLICABLE
APPEARANCE AND ODOR WATER WHITE LIQUID	
IS MATERIAL: LIQUID XX SOLID GAS PASTE POWDER	

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

	METHOD USED		LEL	UEL
FLASH POINT 67 °F °C	T.C.C.	FLAMMABLE LIMITS	1%	8%

EXTINGUISHING MEDIA CARBON DIOXIDE, DRY CHEMICAL, FOAM.

SPECIAL FIRE FIGHTING PROCEDURES USE NIOSH APPROVED SELF CONTAINED BREATHING APPARATUS. COOL EXPOSED CONTAINERS WITH WATER TO PREVENT PRESSURE BUILDUP AND/OR RUPTURE.

UNUSUAL FIRE AND EXPLOSION HAZARDS VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL TO A SOURCE OF IGNITION AND CAUSE FLASHBACK. VAPORS MAY SPREAD. PREVENT BUILDUP OF VAPORS. EXTINGUISH ALL PILOT LIGHTS, TURN OFF HEATERS, NON-EXPLOSION PROOF ELECTRICAL EQUIPMENT AND OTHER SOURCES OF IGNITION DURING USE AND UNTIL ALL VAPORS ARE GONE.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE 50 PPM (ACGIH)	OTHER LIMIT 100 PPM (OSHA)
PERMISSIBLE EXPOSURE LIMIT 50 PPM	100 PPM (VENDOR)

EFFECTS OF OVEREXPOSURE - (CONDITIONS TO AVOID) INHALATION - IRRITATION OF THE RESPIRATORY TRACT; HEADACHE, NAUSEA, DIZZINESS, WEAKNESS AND FATIGUE. EXTREME EXPOSURE CAN RESULT IN UNCONSCIOUSNESS AND EVEN RESPIRATORY ARREST. EYE CONTACT - SEVERE IRRITANT. SKIN CONTACT - PROLONGED AND REPEATED LIQUID CONTACT CAN CAUSE DEFATTING AND DRYING OF SKIN, WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS. CHRONIC: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

PRIMARY ROUTES OF ENTRY INHALATION, SKIN CONTACT, SWALLOWING

EMERGENCY AND FIRST AID PROCEDURES INHALATION - MOVE FRESH AIR. IF BREATHING BECOMES DIFFICULT, ADMINISTER OXYGEN. IF BREATHING CEASES, RESTORE USING APPROVED CPR TECHNIQUES AND SUMMON MEDICAL ASSISTANCE IMMEDIATELY. EYE CONTACT - FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN FOR MEDICAL TREATMENT. SKIN CONTACT - WASH AFFECTED AREAS WITH SOAP AND WATER. REMOVE SOILED CLOTHING. CONSULT A PHYSICIAN IF IRRITATION PERSISTS. INGESTION - DO NOT INDUCE VOMITING. CONSULT A PHYSICIAN IMMEDIATELY. ASPIRATION OF VOMITUS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

NOTICE: INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID	HEAT, SPARKS, OPEN FLAME.
	STABLE XX		

INCOMPATIBILITY (MATERIALS TO AVOID) STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS THERMAL DECOMPOSITION MAY YIELD CARBON MONOXIDE AND CARBON DIOXIDE.

HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID	NOT APPLICABLE
	WILL NOT OCCUR XX		

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED REMOVE ALL SOURCES OF IGNITION (FLAMES, HOT SURFACES, AND ELECTRICAL STATIC OR FRICTIONAL SPARKS). AVOID BREATHING VAPORS. VENTILATE AREA. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. DIKE AND CONTAIN SPILLED MATERIAL AND REMOVE WITH INERT ABSORBENT AND NON-SPARKING TOOLS. STORE IN CLOSED CONTAINER UNTIL PROPERLY DISPOSED OF.

WASTE DISPOSAL METHOD INCINERATE UNDER SAFE CONDITIONS OR DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

CERCLA (SUPERFUND) REPORTABLE QUANTITY (IN LBS) ONE POUND OR REFER TO SECTION 311 CLEAN WATER ACT.

RCRA HAZARDOUS WASTE NO. (40 CFR 261.33) D-001, F-003 NOTE: NUMBERS APPLY TO THINNER BLEND ONLY.

VOLATILE ORGANIC COMPOUND (VOC) (AS PACKAGED, MINUS WATER) 100%

XX THEORETICAL 6.918 LB/GAL XX ANALYTICAL 6.882 LB/GAL

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE) USE NIOSH/MSHA APPROVED SELF CONTAINED BREATHING APPARATUS FOR CONCENTRATIONS ABOVE TLV LIMITS.

VENTILATION USE ONLY WITH ADEQUATE VENTILATION. USE EITHER LOCAL EXHAUST OR MECHANICAL TO MEET TLV REQUIREMENTS. VENTILATION MUST BE SUFFICIENT TO LIMIT EMPLOYEE EXPOSURE AT, OR BELOW, OSHA TLV LIMIT. HEAVY SOLVENT VAPORS SHOULD BE REMOVED FROM LOWER LEVELS OF WORK AREA.

PROTECTIVE GLOVES NEOPRENE OR EQUIVALENT.

EYE PROTECTION SAFETY GLASSES OR GOGGLES.

OTHER PROTECTIVE EQUIPMENT EYE BATH AND SAFETY SHOWER.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING KEEP AWAY FROM HEAT, SPARKS, OPEN FLAME. USE WITH ADEQUATE VENTILATION. DO NOT BREATHE VAPORS, DO NOT GET IN EYES, ON SKIN OR CLOTHING. DO NOT STORE ABOVE 120°F.

OTHER PRECAUTIONS NEVER USE CUTTING OR WELDING TORCH IN, ON OR NEAR CONTAINERS, EVEN EMPTY, AS PRODUCT OR RESIDUE MAY IGNITE. DO NOT TRANSFER CONTENTS TO BOTTLES OR OTHER UNLABELED CONTAINERS.

NAME WALTER STUECKEN

SIGNATURE Walter Stuecken

TITLE LABORATORY MANAGER

DATE NOVEMBER 18, 1986

SECTION VIII-SPECIAL PRECAUTIONS

Handling and Storing

- Wear neoprene gloves and protective clothing if direct contact likely; wear eye protection.
- Avoid skin and eye contact. Avoid breathing vapors.
- Treat as flammable material. Keep away from heat, sparks, and open flames.
- Avoid static electricity - ground containers when transferring product.
- Relieve possible internal pressure in container before opening by partially unscrewing bung.
- Vapors are heavier than air and will settle and collect in low areas and pits, displacing breathing air. Provide adequate ventilation to protect from these hazards and to keep below maximum exposure values.
- Empty containers retain hazardous product residues, both liquid and vapor.
- Keep container closed when not in use.

"The data included herein are presented according to W. R. Grace & Co.'s practices current at the time of preparation hereof, are made available solely for the consideration, investigation and verification of the original recipients hereof and do not constitute a representation or warranty for which Grace assumes legal responsibility. It is the responsibility of a recipient of this data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, including the [illegible] and environmental protection."

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME OR NUMBER (AS IT APPEARS ON LABEL)
"PM" Solvent I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
GROW GROUP, INC.	313-643-4600

ADDRESS (NUMBER, STREET, CITY, STATE AND ZIP CODE)
3155 WEST BIG BEAVER ROAD, SUITE 200 P.O. BOX 7026 TROY, MICHIGAN 48007-7026

MANUFACTURER'S D-U-N-S NO.
00-532-0551

HAZARDOUS MATERIALS DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS ID NO.
PROPYLENE GLYCOL METHYL ETHER UN-1993

ADDITIONAL HAZARD CLASSES (AS APPLICABLE)
FLAMMABLE LIQUID

CHEMICAL FAMILY	FORMULA
ALIPHATIC GLYCOL ETHER	NOT APPLICABLE

SECTION II - INGREDIENTS

CAS REGISTRY NO.	%V	%W	CHEMICAL NAMES	LISTED AS A CARCINOGEN IN NTP IARC OR OSHA 1910
107-98-2	100		PROPYLENE GLYCOL METHYL ETHER (1-METHOXY, 2-PROPANOL)	

SECTION III - PHYSICAL DATA

BOILING RANGE	243 XX °F °C	SPECIFIC GRAVITY (H_2O=1)	.920
VAPOR PRESSURE @ 68°F °C	10.9 XX MM HG PSI	PERCENT VOLATILE BY VOLUME	100%
		PERCENT SOLID BY WEIGHT	0%
VAPOR DENSITY (AIR=1)	3.0	EVAPORATION RATE	SLOWER THAN ETHER
SOLUBILITY IN WATER	100%	pH	NOT APPLICABLE

APPEARANCE AND ODOR WATER WHITE LIQUID

IS MATERIAL: LIQUID XX SOLID GAS PASTE POWDER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

		METHOD USED		LEL	UEL
FLASH POINT	89 °F °C	T.C.C.	FLAMMABLE LIMITS	2.7%	11.8%

EXTINGUISHING MEDIA CARBON DIOXIDE, DRY CHEMICAL, FOAM.

SPECIAL FIRE FIGHTING PROCEDURES USE NIOSH APPROVED SELF CONTAINED BREATHING ...RATUS. COOL EXPOSED CONTAINERS WITH WATER TO PREVENT PRESSURE BUILDUP AND/OR ...RE.

...UAL ... AND EXPLOSION HAZARDS VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL TO A ...OURCE OF IGNITION AND CAUSE FLASHBACK. VAPORS MAY SPREAD. PREVENT BUILDUP OF VAPORS. EXTINGUISH ALL PILOT LIGHTS, TURN OFF HEATERS, NON-EXPLOSION PROOF ELECTRICAL EQUIPMENT AND OTHER SOURCES OF IGNITION DURING USE AND UNTIL ALL VAPORS ARE GONE.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE 100 PPM (ACGIH)	OTHER LIMIT
PERMISSIBLE EXPOSURE LIMIT 100 PPM	

EFFECTS OF OVEREXPOSURE - (CONDITIONS TO AVOID) INHALATION - IRRITATION OF THE RESPIRATORY TRACT; HEADACHE, NAUSEA, DIZZINESS, WEAKNESS AND FATIGUE. EXTREME EXPOSURE CAN RESULT IN UNCONSCIOUSNESS AND EVEN RESPIRATORY ARREST. EYE CONTACT - SEVERE IRRITANT. SKIN CONTACT - PROLONGED AND REPEATED LIQUID CONTACT CAN CAUSE DEFATTING AND DRYING OF SKIN, WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS. MAY ... ABSORBED THROUGH SKIN AND PRODUCE TOXIC EFFECT IF EXPOSURE IS PROLONGED. CHRONIC: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

PRIMARY ROUTES OF ENTRY INHALATION, SKIN CONTACT, SWALLOWING

EMERGENCY AND FIRST AID PROCEDURES INHALATION - REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT, ADMINISTER OXYGEN. IF BREATHING CEASES, RESTORE USING APPROVED CPR TECHNIQUES AND SUMMON MEDICAL ASSISTANCE IMMEDIATELY. EYE CONTACT - FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN FOR MEDICAL TREATMENT. SKIN CONTACT - WASH AFFECTED AREAS WITH SOAP AND WATER. REMOVE SOILED CLOTHING. CONSULT A PHYSICIAN IF IRRITATION PERSISTS. INGESTION - DO NOT INDUCE VOMITING. CONSULT A PHYSICIAN IMMEDIATELY. ASPIRATION EXCEEDS SYSTEMIC POISONING RISK.

NOTICE: INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID	HEAT, SPARKS, OPEN FLAME.
	STABLE XX		

INCOMPATIBILITY (MATERIALS TO AVOID) STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS THERMAL DECOMPOSITION MAY YIELD CARBON MONOXIDE AND CARBON DIOXIDE.

HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID	NOT APPLICABLE
	WILL NOT OCCUR XX		

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED REMOVE ALL SOURCES OF IGNITION (FLAMES, HOT SURFACES, AND ELECTRICAL STATIC OR FRICTIONAL SPARKS). AVOID BREATHING VAPORS. VENTILATE AREA. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. DIKE AND CONTAIN SPILLED MATERIAL AND REMOVE WITH INERT ABSORBENT AND NON-SPARKING TOOLS. STORE IN CLOSED CONTAINER UNTIL PROPERLY DISPOSED OF.

WASTE DISPOSAL METHOD INCINERATE UNDER SAFE CONDITIONS OR DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

CERCLA (SUPERFUND) REPORTABLE QUANTITY (IN LBS) ONE POUND OR REFER TO SECTION 311 CLEAN WATER ACT.

RCRA HAZARDOUS WASTE NO. (40 CFR 261.33) D-001 NOTE: NUMBER APPLIES TO THINNER BLEND ONLY.

VOLATILE ORGANIC COMPOUND (VOC) (AS PACKAGED, MINUS WATER) 100%

THEORETICAL 7.65 LB/GAL XX ANALYTICAL 7.65 LB/GAL

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE) USE NIOSH/MSHA APPROVED SELF CONTAINED BREATHING APPARATUS FOR CONCENTRATIONS ABOVE TLV LIMITS.

VENTILATION USE ONLY WITH ADEQUATE VENTILATION. USE EITHER LOCAL EXHAUST OR MECHANICAL TO MEET TLV REQUIREMENTS. VENTILATION MUST BE SUFFICIENT TO LIMIT EMPLOYEE EXPOSURE AT, OR BELOW, OSHA TLV LIMIT. HEAVY SOLVENT VAPORS SHOULD BE REMOVED FROM LOWER LEVELS OF WORK AREA.

PROTECTIVE GLOVES NEOPRENE OR EQUIVALENT.

EYE PROTECTION SAFETY GLASSES OR GOGGLES.

OTHER PROTECTIVE EQUIPMENT EYE BATH AND SAFETY SHOWER.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING KEEP AWAY FROM HEAT, SPARKS, OPEN FLAME. USE WITH ADEQUATE VENTILATION. DO NOT BREATHE VAPORS, DO NOT GET IN EYES, ON SKIN OR CLOTHING. DO NOT STORE ABOVE 120°F. ACCIDENTAL CONTACT SHOULD BE WASHED AWAY IMMEDIATELY.

OTHER PRECAUTIONS NEVER USE CUTTING OR WELDING TORCH IN, ON OR NEAR CONTAINERS, EVEN EMPTY, AS PRODUCT OR RESIDUE MAY IGNITE. DO NOT TRANSFER CONTENTS TO BOTTLES OR OTHER UNLABELED CONTAINERS.

NAME WALTER STUECKEN

SIGNATURE Walter Stuecken

TITLE LABORATORY MANAGER

DATE AUGUST 1, 1986

GRACE

SAFETY DATA

W. R. GRACE & CO. - CONN.
DEWEY AND ALMY CHEMICAL DIVISION
55 HAYDEN AVENUE
LEXINGTON, MA 02173

EMERGENCY PHONE NO. (617) 861-6600

SECTION I - IDENTIFICATION

PRODUCT (TRADE) NAME: DOREX DISP CONC 1106 (36-37)

General Chemical Description: Solvent-based sealant

SECTION II-INGREDIENTS

Hazardous Ingredients	% by Weight	Maximum Exposure Value (ppm) (8 hour time-weighted average) OSHA PEL*	ACGIH TLV**
n-hexane	43 approx.	50	50
other hexanes	16 approx.	500 (1000 STEL)	500 (1000 STEL)
cyclohexane (CAS#110-82-7) (SARA Section 313 chemical)	below 2	300	300
ethyl alcohol	below 2	1000	1000
isopropyl alcohol	below 1	400 (500 STEL)	400 (500 STEL)

* 29 CFR Section 1910.1000, July 1, 1988
** 1988-1989 recommendation, American Conference of Governmental Industrial Hygienists

Other Ingredients	% by Weight
Rubber, resin, filler, pigment, and modifiers (including water).	above 36

SECTION III-PHYSICAL DATA

Vapor density of n-hexane (air=1): 3.0 Specific Gravity (water=1): 0.80

Solubility in water: not soluble Volatiles, including water (% by weight): below 64
Appearance and Odor: Gray liquid; petroleum solvent odor

SECTION IV-FIRE AND EXPLOSION HAZARD DATA

Flash Point: below 20°F (Pensky-Martens)
Flammable Limits (n-hexane): 1.1 - 7.5%
Extinguishing Media: Carbon dioxide, dry chemical, foam.

Fire-fighters should wear the usual protective gear, self-contained breathing apparatus.

Combustion will result in the release of the usual decomposition products including oxides of carbon.

SECTION V-REACTIVITY DATA

Product is stable; hazardous polymerization will not occur.
Incompatible with strong oxidizers.

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SECTION VI-SPILL OR LEAK PROCEDURES

Handling Precautions: See Section VIII.

For small spills: Wipe up, or absorb with sand or other absorbent material. Collect waste in sealed containers.
For large spills: Dike area to prevent spreading. Shovel or pump to drum or salvage tank. Absorb residual material with sand, or other absorbent material.

Use only clean-up equipment approved for flammable materials and areas.
Dispose of as a flammable material in accordance with current local, state, and Federal regulations.

EPA Hazardous Waste Number is: D001

SECTION VII-HEALTH HAZARD DATA

Threshold Limit Values: See Section II.

	Signs & Symptoms of Acute Exposure	Emergency First Aid Procedures
Inhalation:	Vapors can produce headache, nausea, dizziness, disorientation, numbness in fingers and toes, and irritation of nose and throat.	Remove to fresh air.
Eyes:	Irritation upon direct contact.	Immediately flush eyes with water for at least 15 minutes; get medical attention.
Skin:	Irritation upon direct contact.	Wash affected area with water; if irritation occurs and persists, get medical attention. Remove contaminated clothing.
Ingestion:	Harmful if swallowed.	Dilute with water or milk; do not induce vomiting; get medical attention.

CHRONIC EFFECTS: Prolonged or repeated overexposure to the solvent system by inhalation can produce central nervous system depression and/or nerve damage. Prolonged or repeated overexposure by skin contact can produce dermatitis.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Preexisting nervous system disorders and skin diseases may be aggravated.

GET MEDICAL ATTENTION IF SYMPTOMS PERSIST

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SECTION VIII-SPECIAL PRECAUTIONS

Handling and Storing

- Wear neoprene gloves and protective clothing if direct contact likely; wear eye protection.
- Avoid skin and eye contact. Avoid breathing vapors.
- Treat as flammable material. Keep away from heat, sparks, and open flames.
- Avoid static electricity - ground containers when transferring product.
- Relieve possible internal pressure in container before opening by partially unscrewing bung.
- Vapors are heavier than air and will settle and collect in low areas and pits, displacing breathing air. Provide adequate ventilation to protect from these hazards and to keep below maximum exposure values.
- Empty containers retain hazardous product residues, both liquid and vapor.
- Keep container closed when not in use.

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GRACE SAFETY DATA

W. R. GRACE & CO. - CONN.
DEWEY AND ALMY CHEMICAL DIVISION
55 HAYDEN AVENUE
LEXINGTON, MA 02173

EMERGENCY PHONE NO. (617) 861-6600

SECTION I - IDENTIFICATION

PRODUCT (TRADE) NAME: DAREX DISP COUC 59275Y

General Chemical Description: Solvent-based sealant

SECTION II-INGREDIENTS

Hazardous Ingredients	% by Weight	Maximum Exposure Value (ppm) (8 hour time-weighted average) OSHA PEL*	ACGIH TLV**
n-hexane	40 approx.	50	50
other hexanes	15 approx.	500 (1000 STEL)	500 (1000 STEL)
ethyl alcohol	below 1	1000	1000
isopropyl alcohol	below 1	400 (500 STEL)	400 (500 STEL)

* 29 CFR Section 1910.1000, July 1, 1988
** 1988-1989 recommendation, American Conference of Governmental Industrial Hygienists

Other Ingredients	% by Weight
Rubber, resin, filler, pigment, and modifiers (including water).	43 approx.

SECTION III-PHYSICAL DATA

Vapor density of n-hexane (air=1): 3.0 Specific Gravity (water=1): 0.83
Solubility in water: not soluble Volatiles, including water (% by weight): 59 approx.
Appearance and Odor: Yellow liquid; petroleum solvent odor

SECTION IV-FIRE AND EXPLOSION HAZARD DATA

Flash Point: below 20°F (Pensky-Martens)
Flammable Limits (n-hexane): 1.1 - 7.5%
Extinguishing Media: Carbon dioxide, dry chemical, foam.

Fire-fighters should wear the usual protective gear, self-contained breathing apparatus.

Combustion will result in the release of the usual decomposition products including oxides of carbon.

SECTION V-REACTIVITY DATA

Product is stable; hazardous polymerization will not occur.
Incompatible with strong oxidizers.

"The data included herein are presented according to W. R. Grace & Co.'s practices current at the time of preparation hereof, are made available solely for the consideration, investigation and verification of the original recipients hereof and do not constitute a representation or warranty for which Grace assumes legal responsibility. It is the responsibility of a recipient of this data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state, and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection."

SECTION VI-SPILL OR LEAK PROCEDURES

Handling Precautions: See Section VIII.

For small spills: Wipe up, or absorb with sand or other absorbent material. Collect waste in sealed containers.
For large spills: Dike area to prevent spreading. Shovel or pump to drum or salvage tank. Absorb residual material with sand, or other absorbent material.

Use only clean-up equipment approved for flammable materials and areas.
Dispose of as a flammable material in accordance with current local, state, and Federal regulations.

EPA Hazardous Waste Number is: D001

SECTION VII-HEALTH HAZARD DATA

Threshold Limit Values: See Section II.

	Signs & Symptoms of Acute Exposure	Emergency First Aid Procedures
Inhalation:	Vapors can produce headache, nausea, dizziness, disorientation, numbness in fingers and toes, and irritation of nose and throat.	Remove to fresh air.
Eyes:	Irritation upon direct contact.	Immediately flush eyes with water for at least 15 minutes; get medical attention.
Skin:	Irritation upon direct contact.	Wash affected area with water; if irritation occurs and persists, get medical attention. Remove contaminated clothing.
Ingestion:	Harmful if swallowed.	Dilute with water or milk; do not induce vomiting; get medical attention.

CHRONIC EFFECTS: Prolonged or repeated overexposure to the solvent system by inhalation can produce central nervous system depression and/or nerve damage. Prolonged or repeated overexposure by skin contact can produce dermatitis.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Preexisting nervous system disorders and skin diseases may be aggravated.

GET MEDICAL ATTENTION IF SYMPTOMS PERSIST

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GRACE

W. R. GRACE & CO. - CONN. , DEWEY AND ALMY CHEMICAL DIVISION
55 HAYDEN AVENUE
LEXINGTON, MA 02173

EMERGENCY PHONE NO. (617) 861-6600

SECTION I - IDENTIFICATION

PRODUCT (TRADE) NAME: DAREX CMPD 593857

General Chemical Description: Solvent-based sealant

SECTION II-INGREDIENTS

Hazardous Ingredients	% by Weight	Maximum Exposure Value (ppm) (8 hour time-weighted average) OSHA PEL*	ACGIH TLV**
n-hexane	28 approx.	500	50
other hexanes	11 approx.	not listed	500
isopropyl alcohol	below 4	400	400
ethyl alcohol	below 4	1000	1000

* 29 CFR Section 1910.1000, July 1, 1987
** 1987-1988 recommendation, American Conference of Governmental Industrial Hygienist

Other Ingredients	% by Weight
Rubber, resin, filler, pigment, and modifiers (including water).	54 approx.

SECTION III-PHYSICAL DATA

Vapor density of n-hexane (air=1): 3.0 Specific Gravity (water=1): 1.0 approx.

Solubility in water: not soluble Volatiles, including water (% by weight): 46 approx.
Appearance and Odor: Yellow liquid; petroleum solvent odor

SECTION IV-FIRE AND EXPLOSION HAZARD DATA

Flash Point: below 20°F (Pensky-Martens)
Flammable Limits (n-hexane): 1.1 - 7.5%
Extinguishing Media: Carbon dioxide, dry chemical, foam.

Fire-fighters should wear the usual protective gear, self-contained breathing apparatus.

Combustion will result in the release of the usual decomposition products including oxides of carbon.

SECTION V-REACTIVITY DATA

Product is stable; hazardous polymerization will not occur.
Incompatible with strong oxidizers.

DAREX CMPD S9385

SECTION VI-SPILL OR LEAK PROCEDURES

Handling Precautions: See Section VIII.

For small spills: Wipe up, or absorb with sand or other absorbent material. Collect waste in sealed containers.
For large spills: Dike area to prevent spreading. Shovel or pump to drum or salvage tank. Absorb residual material with sand, or other absorbent material.

Use only clean-up equipment approved for flammable materials and areas.
Dispose of as a flammable material in accordance with current local, state, and Federal regulations.

EPA Hazardous Waste Number is: D001

SECTION VII-HEALTH HAZARD DATA

Threshold Limit Values: See Section II.

	Signs & Symptoms of Acute Exposure	Emergency First Aid Procedures
Inhalation:	Vapors can produce headache, nausea, dizziness, disorientation, numbness in fingers and toes, and irritation of nose and throat.	Remove to fresh air.
Eyes:	Irritation upon direct contact.	Immediately flush eyes with water for at least 15 minutes; get medical attention.
Skin:	Irritation upon direct contact.	Wash affected area with water; if irritation occurs and persists, get medical attention. Remove contaminated clothing.
Ingestion:	Harmful if swallowed.	Dilute with water or milk; do not induce vomiting; get medical attention.

GET MEDICAL ATTENTION IF SYMPTOMS PERSIST

SECTION VIII-SPECIAL PRECAUTIONS

Handling and Storing

- Wear neoprene gloves and protective clothing if direct contact likely; wear eye protection.
- Avoid skin and eye contact. Avoid breathing vapors.
- Treat as flammable material. Keep away from heat, sparks, and open flames.
- Avoid static electricity - ground containers when transferring product.
- Relieve possible internal pressure in container before opening by partially unscrewing bung.
- Vapors are heavier than air and will settle and collect in low areas and pits, displacing breathing air. Provide adequate ventilation to protect from these hazards and to keep below maximum exposure values.
- Empty containers retain hazardous product residues, both liquid and vapor.
- Keep container closed when not in use.

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GRACE

SAFETY DATA

W. R. GRACE & CO. - CONN.
DEWEY AND ALMY CHEMICAL DIVISION
55 HAYDEN AVENUE
LEXINGTON, MA 02173

EMERGENCY PHONE NO. (617) 861-6600

SECTION I - IDENTIFICATION

PRODUCT (TRADE) NAME: [redacted]

General Chemical Description: Water-based sealant

SECTION II-INGREDIENTS

Hazardous Ingredients	% by Weight	Maximum Exposure Value (ppm) (8 hour time-weighted average) OSHA PEL*	ACGIH TLV**
ammonia (CAS#7664-41-7) (SARA Section 313 chemical)	below 0.5	(35 STEL)	25 (35 STEL)

1.0 % Diantmos

* 29 CFR Section 1910.1000, July 1, 1988
** 1988-1989 recommendation, American Conference of Governmental Industrial Hygienists

Other Ingredients	% by Weight
Water, rubber, resin, filler, pigment, and modifiers.	above 99.5

SECTION III-PHYSICAL DATA

Solubility in Water: water dilutable Specific Gravity (water=1): 1.2 approx.

Volatiles, including water (% by weight): 38 approx.

Appearance and Odor: Gray liquid; odor of ammonia

SECTION IV-FIRE AND EXPLOSION HAZARD DATA

Flash Point: above 200°F (Cleveland Open Cup)
Extinguishing Media: Carbon dioxide, dry chemical, foam.

Combustion will result in the release of the usual decomposition products including oxides of carbon and nitrogen.

SECTION V-REACTIVITY DATA

Product is stable; hazardous polymerization will not occur.

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SECTION VI-SPILL OR LEAK PROCEDURES

Handling Precautions: See Section VIII.

For small spills: Wipe up, or absorb with sand or other absorbent material. Collect waste in sealed containers.
For large spills: Dike area to prevent spreading. Shovel or pump to drum or salvage tank. Absorb residual material with sand, or other absorbent material.

Material is not a hazardous waste as defined in 40 CFR Sec. 261.3.

Dispose of all product wastes and water rinses in accordance with current local, state, and Federal regulations.

SECTION VII-HEALTH HAZARD DATA

Threshold Limit Values: See Section II.

	Signs & Symptoms of Acute Exposure	Emergency First Aid Procedures
Inhalation:	Ammonia vapors could produce irritation of nose and throat.	Remove to fresh air.
Eyes:	Irritation upon direct contact.	Immediately flush eyes with water for at least 15 minutes; get medical attention.
	Vapors can produce irritation.	Remove to fresh air; flush eyes with water.
Skin:	Possible irritation.	Wash affected area with water; if irritation occurs and persists, get medical attention. Remove contaminated clothing.
Ingestion:	Not known.	Dilute with water or milk; do not induce vomiting; get medical attention

CHRONIC EFFECTS: Prolonged overexposure to ammonia by inhalation can cause suffocation and pulmonary edema.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Preexisting respiratory and skin diseases may be aggravated.

GET MEDICAL ATTENTION IF SYMPTOMS PERSIST

The data included herein are presented according to W. R. Grace & Co.'s practices current at the time of preparation hereof, are made available solely for the consideration, investigation and verification of the original recipients hereof and do not constitute a representation or warranty for which Grace assumes legal responsibility. It is the responsibility of a recipient of this data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state, and local laws and regulations applicable to safety, occupational health, right-to-know, and environmental protection.

SECTION VIII-SPECIAL PRECAUTIONS

Handling and Storing

- Wear neoprene gloves if direct contact likely; wear eye protection.
- Avoid breathing vapors.
- Keep from freezing.

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DATE OF PREP. 12-16-81

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

Everett

Section I

MANUFACTURER'S NAME: Clement "Coverall" Company

STREET ADDRESS: 623 Van Hook Street, Camden, NJ 08104

MAILING ADDRESS: P. O. Box 557, Camden, NJ 08101

INFORMATION TELEPHONE NO.: 609-964-9042

EMERGENCY TELEPHONE NO.: 609-429-0723

For specific information concerning hazardous ingredients (solvents), call Union Chemical at 312-894-2000.

PRODUCT CLASS

CYCHOCE INHIBITOR

MANUFACTURER'S CODE

P-211-A (7-22-81)

Section II—HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT	TLV ppm	TLV mg/M^3	LEL	VAPOR PRESSURE
AROMATIC HYDROCARBON	98	200		0.5	0.5
TERPENE	2	N.A.		N.A.	1.0

Section III—PHYSICAL DATA

BOILING RANGE (°F): 347 - 406° VAPOR DENSITY: [XX] HEAVIER [ ] LIGHTER THAN AIR

VAPORATION RATE: [ ] FASTER [XX] SLOWER THAN ETHER PERCENT VOLATILE BY VOLUME: 99 WEIGHT PER GALLON: 7.4

Section IV—FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY: COMBUSTIBLE LIQUID - CLASS III A FLASH POINT (SETAFLASH): 147 °F LEL 0.5

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Avoid sources of ignition. Ground all transfer equipment. Closed containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES: Water spray (fog nozzles) may be used for cooling closed containers. Full protective equipment should be used by firefighters to protect them from hazardous decomposition products listed in Section VI.

DUPONT

MATERIAL SAFETY DATA SHEET

604379

PRODUCT IDENTIFICATION

NAME : DBE
CHEMICAL FAMILY : Aliphatic Dibasic Acid Esters
TRADE NAMES AND SYNONYMS :
Dibasic Ester ®
DU PONT REGISTRY NO. : 53-60-5
FORMULA : CH3OOC(CH2)n-COOCH3, n=2,3 and 4
MOLECULAR WEIGHT : Ave. 160
MANUFACTURER/DISTRIBUTOR : E.I. du Pont de Nemours & Co., Inc.
1007 Market Street
Wilmington, DE 19898
PRODUCT INFORMATION PHONE : 1-800-441-7515
MEDICAL EMERGENCY PHONE : 1-800-441-3637
TRANSPORTATION EMERGENCY PHONE : CHEMTREC 1-800-424-9300

CHEMCENTRAL/Toledo
4051 SOUTH AVENUE
TOLEDO, OHIO 43615

****

HAZARDOUS COMPONENTS

CHEMICAL	CAS NUMBER	%
Dimethyl Glutarate	1119-40-0 No	66
Dimethyl Adipate	627-93-0 No	17
Dimethyl Succinate	106-65-0 No	16.5
Methanol	67-56-1 Too Low	~0.2
Hydrogen Cyanide — To Low	74-90-8	~15ppm

****

PHYSICAL DATA

Boiling Point : 196 to 225 deg C
Melting Point : ~ -20 deg C
Specific Gravity : 1.092 at 20 deg C
Vapor Pressure : 0.2 mm Hg at 20 deg C
Solubility in H20 : 5.3 wt % at 20 deg C
% Volatiles : 100 wt % at 20 deg C
Evaporation Rate : _<.1 (Butyl Acetate = 1.0)
Odor : Sweet
Form : Liquid
Color : Colorless

****

HAZARDOUS REACTIVITY

INSTABILITY : Stable.
INCOMPATIBILITY : Incompatible with strong oxidants, acids, alkalies.
DECOMPOSITION : Decomposes with heat.
POLYMERIZATION : Polymerization will not occur.

FIRE AND EXPLOSION DATA

Flash Point : 100 deg C
Method : TCC
Autoignition Temperature : 370 deg C
Explosive Limits in Air, % by Vol. :
LEL : 0.9
UEL : 8.0

FIRE AND EXPLOSION HAZARDS
Vapor forms explosive mixture with air. Hazardous gases produced in fi
are carbon monoxide.

EXTINGUISHING MEDIA
Water. Chemical Foam. Dry Chemical. CO2.

SPECIAL FIRE FIGHTING INSTRUCTIONS
Flood with water. Wear self-contained breathing apparatus. Wear full protective equipment (eye, body, respiratory).

****

HEALTH HAZARD INFORMATION

PRINCIPAL HEALTH HAZARDS

Inhalation LC50: 1 hr. >10.7 mg/l in rats
Skin absorption LD50: >2,250 mg/kg in rabbits
Oral LD50: 8,191 mg/kg in rats

DBE is an eye irritant in animal tests. DBE demonstrated no mutagenic activity when tested in bacterial cell cultures. DBE demonstrated no reproductive toxicity and was not uniquely toxic to the fetus in a developmental study. DBE produced mild nasal lesions in rats.

Anticipated human health effects of overexposure include eye irritation.

CARCINOGENICITY
NONE OF THE COMPONENT(S) OF THIS MATERIAL IS LISTED AS A CARCINOGEN BY NTP, IARC, OR OSHA.

EXPOSURE LIMITS
AEL (Du Pont) : 10mg/M3 (8 hr TWA)
TLV * (ACGIH) : None Established
PEL (OSHA) : None Established
* TLV is a registered trademark.

Methanol: AEL: 200ppm, 8hr TWA, skin; 100ppm, 12hr TWA, skin
Hydrogen Cyanide: TLV*: C 10ppm, skin

SAFETY PRECAUTIONS
Avoid breathing vapors or mist. Avoid contact with eyes. Wash thoroughly after handling.

FIRST AID

INHALATION :
If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT :
Flush skin with water.

EYE CONTACT :
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION :
If swallowed, do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician.

****
PROTECTION INFORMATION

GENERALLY APPLICABLE CONTROL MEASURES and PRECAUTIONS
Use only with adequate ventilation. Do not mix with strong oxidants, acids, alkalies. Do not consume food, drink or tobacco in areas where they may become contaminated with this material.

PERSONAL PROTECTIVE EQUIPMENT
Coverall chemical splash goggles. Use when splash is likely. Air supplied respirator. Chemical Cartridge Respirator : Half-mask organic vapor cartridge. Full-face organic vapor cartridge if eye protection needed. Impervious gloves such as Neoprene.

****
AQUATIC TOXICITY : 96 hr, fathead minnows, LC50: >18ppm <24ppm

SPILL, LEAK, OR RELEASE
Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up.

Remove source of heat, sparks, flame, impact, friction or electricity. Dike spill. Prevent liquid from entering sewers, water ways or low areas. Recover free liquid for reuse or reclamation. Recover undamaged and minimally contaminated material for reuse or reclamation. Soak up with sawdust, sand, oil dry or other absorbent material.

WASTE DISPOSAL
Treatment, storage, transportation and disposal must be in accordance with EPA or State regulations under the authority of the Resource

DISPOSAL INFORMATION - CONTINUED

Conservation and Recovery Act (40 CFR, parts 260-271). Recover nonusable free liquid and dispose of in an approved and permitted incinerator. Recover contaminated water and dispose of in an approved and permitted biological treatment system or an approved and permitted deepwell. Remove nonusable solid material and/or contaminated soil, for disposal in an approved and permitted landfill. Do not flush to surface water or sanitary sewer system.

****

SHIPPING INFORMATION

DOMESTIC OTHER THAN AIR (DOT)
Shipping Name : DIBASIC ESTER MIXTURE
Hazard Class : Not Regulated
Freight Class : Plasticizers + Solvents

INTERNATIONAL WATER OR AIR (IMO/ICAO)
Shipping Name : DIBASIC ESTER MIXTURE
Hazard Class : Not Regulated

BULK WATER (USCG)
Shipping Name : DIBASIC ESTER MIXTURE

OTHER SHIPPING INFORMATION
Shipping Containers :
Tank Car : 170,000 lbs
Tank Truck : 42,000 lbs
Steel Drums : 485 lbs

****

STORAGE CONDITIONS

Store in well ventilated area. Keep container tightly closed. Do not store with strong oxidants, acids, alkalies.

****

ADDITIONAL INFORMATION AND REFERENCES

As DBE's may contain traces of methanol and hydrogen cyanide avoid concentrating these contaminants to a hazardous level during processing.

****

Date of latest Revision : 13-Feb-86
Person Responsible for MSDS : Petrochemicals - Env. Affairs
Address : E.I. du Pont de Nemours & Co.,Inc.
Wilmington, DE 19898
Telephone : 302-774-5810

E-77985-1 2/86

MAR 16 1987

DUPONT

GRACE

SAFETY DATA

W. R. GRACE & CO.-CONN.
DEWEY AND ALMY CHEMICAL DIVISION
55 HAYDEN AVENUE
LEXINGTON, MA 02173

EMERGENCY PHONE NO. (617) 861-6600

SECTION I - IDENTIFICATION

PRODUCT (TRADE) NAME: DAREX MIST SOLN 72S

General Chemical Description: Solvent-based coating

SECTION II-INGREDIENTS

Hazardous Ingredients	% by Weight	Maximum Exposure Value (ppm) (8 hour time-weighted average) OSHA PEL*	ACGIH TLV**
oil (mist), mineral (CAS#8012-95-1)	5 approx.	5 mg/M3	5 mg/M3 (10 mg/M3 STEL)
mixed isomeric heptanes	95 approx.	not listed (500 recommended by supplier; 400 listed by OSHA for n-heptane)	not listed (400 listed for n-heptane)

* 29 CFR Section 1910.1000, July 1, 1988
** 1988-1989 recommendation, American Conference of Governmental Industrial Hygienists

Other Ingredients	% by Weight
none	0

SECTION III-PHYSICAL DATA

Vapor density of heptane (air=1): 3.5 approx. Specific Gravity (water=1): 0.7 approx.

Solubility in water: not soluble Volatiles, including water (% by weight): 95 approx.
Appearance and Odor: Water-white liquid; petroleum solvent odor

SECTION IV-FIRE AND EXPLOSION HAZARD DATA

Flash Point: below 20°F (Pensky-Martens)
Flammable Limits (solvent): 1.0 - 6.0%
Extinguishing Media: Carbon dioxide, dry chemical, foam.

Fire-fighters should wear the usual protective gear, self-contained breathing apparatus.

Combustion will result in the release of the usual decomposition products including oxides of carbon.

SECTION V-REACTIVITY DATA

Product is stable; hazardous polymerization will not occur.
Incompatible with strong oxidizers.

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SECTION VI-SPILL OR LEAK PROCEDURES

Handling Precautions: See Section VIII.

For small spills: Wipe up, or absorb with sand or other absorbent material. Collect waste in sealed containers.
For large spills: Dike area to prevent spreading. Shovel or pump to drum or salvage tank. Absorb residual material with sand, or other absorbent material.

Use only clean-up equipment approved for flammable materials and areas.
Dispose of as a flammable material in accordance with current local, state, and Federal regulations.

EPA Hazardous Waste Number is: D001

SECTION VII-HEALTH HAZARD DATA

Threshold Limit Values: See Section II.

	Signs & Symptoms of Acute Exposure	Emergency First Aid Procedures
Inhalation:	Vapors can produce headache, nausea, dizziness, disorientation, and irritation of nose and throat.	Remove to fresh air.
Eyes:	Irritation upon direct contact.	Immediately flush eyes with water for at least 15 minutes; get medical attention.
Skin:	Irritation upon direct contact.	Wash affected area with water; if irritation occurs and persists, get medical attention. Remove contaminated clothing.
Ingestion:	Harmful if swallowed.	Dilute with water or milk; do not induce vomiting; get medical attention.

CHRONIC EFFECTS: Prolonged or repeated overexposure to heptanes by skin contact can produce dermatitis.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Preexisting skin diseases may be aggravated.

GET MEDICAL ATTENTION IF SYMPTOMS PERSIST

"The data included herein are presented according to W. R. Grace & Co.'s practices current at the time of preparation hereof, are made available solely for the consideration, investigation and verification of the original recipients hereof and do not constitute a representation or warranty for which Grace assumes legal responsibility. It is the responsibility of a recipient of this data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state, and local laws and regulations applicable to safety, occupational health, right-to-know

MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP. 4-12-89

Coverall

Section I

MANUFACTURER'S NAME: Clement "Coverall" Company

STREET ADDRESS: 623 Van Hook Street, Camden, NJ 08104

MAILING ADDRESS: P.O. Box 557, Camden, NJ 08101

TELEPHONE NUMBERS:

EMERGENCY: 800-424-9300 CHEMTREC

EMERGENCY: 609-429-0723 CLEMENT

INFORMATION: 609-964-9042 BUSINESS HOURS

HMIS RATINGS (NCPA)			
HEALTH	2	REACTIVITY	0
FLAMMABILITY	3	PERS.PROTEC.EQUIP.	

PRODUCT CLASS

[redacted]

MANUFACTURER'S CODE

[redacted]

Section II— INGREDIENTS

DRYING OIL

AMORPHOUS SILICA

HAZARDOUS INGREDIENTS

INGREDIENTS	C.A.S. NUMBER	WT. PERCENT	EXPOSURE LIMITS-TWA TLV	PEL	
ALIPHATIC HYDROCARBON CONTAINS [redacted]	64742-89-8	15	NOT ESTABLISHED (300 ppm (RECOMMENDED)	500 ppm)	45° 25
ZINC OXIDE	1314-13-2	48	10mg/M3	15mg/M3	NOT APPLICABLE

THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES WHICH ARE DEFINED AS TOXIC UNDER SECTION 313 OF SARA TITLE III AND 40 CFR 372:

[redacted], (XYLENE)

Section III—PHYSICAL DATA

BOILING RANGE (°F): 245-270 VAPOR DENSITY: [xx] HEAVIER [ ] LIGHTER THAN AIR

EVAPORATION RATE: [ ] FASTER [xx] SLOWER THAN [illegible] PERCENT VOLATILE BY VOLUME: 30 WEIGHT PER GALLON: 12.[illegible]

Section IV—FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: FLAMMABLE FLASH POINT (SETAFLASH): [illegible] °F LEL 1.0

OSHA CLASS IB

EXTINGUISHING MEDIA: Carbon dioxide, dr[illegible]l, foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: [illegible]rs tightly closed. Avoid sources of ignition. Ground all transfer equipment. [illegible]ay explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES: [illegible] nozzles) may be used for cooling closed containers. Full protective [illegible]d by firefighters to protect them from hazardous decomposition pr[illegible]VI.

MSDS

Section V—HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF OVEREXPOSURE: ACUTE

EYES - Can cause severe irritation, tearing, blurred vision.

SKIN - Prolonged or repeated contact can cause moderate irritation, drying, defatting, dermatitis.

INHALATION - Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and asphyxiation.

INGESTION - Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal.

EFFECTS OF OVEREXPOSURE: CHRONIC

Prolonged or repeated contact with skin may cause dermatitis.
Prolonged or repeated overexposure may cause anemia and kidney damage.
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

AGGRAVATED MEDICAL CONDITIONS

Pre-existing skin and respiratory disorders may be aggravated by exposure.

PRIMARY ROUTES OF ENTRY

Inhalation and skin contact.

EMERGENCY AND FIRST AID PROCEDURES: In case of skin contact, wash thoroughly with soap and water: for eyes, flush immediately with plenty of water for 15 minutes and call a physician. Remove and wash contaminated clothing before reuse. If exposed to high concentration of vapor remove patient to fresh air. If swallowed, CALL A PHYSICIAN IMMEDIATELY. DO NOT INDUCE VOMITING.

Section VI—REACTIVITY DATA

STABILITY: [ ] UNSTABLE [X] STABLE

INCOMPATIBILITY (Materials to avoid): Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: As with any organic chemical, thermal decomposition will yield carbon dioxide and probably carbon monoxide.

HAZARDOUS POLYMERIZATION [ ] MAY OCCUR [X] WILL NOT OCCUR

CONDITIONS TO AVOID: Sources of ignition, high temperatures.

Section VII—SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove sources of ignition, ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD: Incinerate in approved facility in accordance with local, state and federal regulations. Do not incinerate closed container.

Section VIII—SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH approved respiratory device may be used. But, under normally well ventilated conditions no respiratory problems may be expected.

VENTILATION: All application areas should be ventilated in accordance with OSHA regulations.

PROTECTIVE GLOVES: Recommended.

EYE PROTECTION: Use approved safety eyewear with splash guards.

OTHER PROTECTIVE EQUIPMENT: Safety shower and eye bath.

Section IX—SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep away from heat, sparks and open flame. Use only with adequate ventilation. Since emptied containers retain product residue (vapor or liquid), all labeled hazard precautions must be observed.

OTHER PRECAUTIONS: Avoid prolonged or repeated breathing of vapor or spray mist. Avoid contact with eyes and skin. Do not take internally.

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.

CLEMENT "COVERALL" COMPANY

...ATERIAL SAFET'. DA.A SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

Coverall

DATE OF PREP. 3-1-90

Section I

MANUFAC 'S NAME: Clement "Coverall" Company

STREET .. ESS: 623 Van Hook Street, Camden, NJ 08104

MAILING ADDRESS: P.O. Box 557, Camden, NJ 08101

TELEPHONE NUMBERS:

EMERGENCY: 800-424-9300 CHEMTREC

EMERGENCY: 609-429-0723 CLEMENT

INFORMATION: 609-964-9042 BUSINESS HOURS

HMIS RATINGS (NCPA)			
HEALTH	2	REACTIVITY	0
FLAMMABILITY	3	PERS.PROTEC.EQUIP.	

PRODUCT CLASS [redacted]

MANUFACTURER'S CODE [redacted]

Section II—HAZARDOUS INGREDIENTS

INGREDIENTS	C.A.S. NUMBER	WT. PERCENT	EXPOSURE LIMITS-TWA TLV	EXPOSURE LIMITS-TWA PEL	VAPOR PRESSURE
ALIPHATIC HYDROCARBON (CONTAINS XYLENE (7% CAS #1330-20-7) Yes	64742-89-8	8	NOT ESTABLISHED (300 ppm RECOMMENDED	500 ppm)	45@ 25°C
ALIPHATIC HYDROCARB	64742-88-7	8	NOT ESTABLISHED (100 ppm RECOMMENDED	500 ppm)	<0.1@ 100°F
XYLENE	1330-20-7	2	100 ppm Skin	100 ppm	6
ETHYLENE GLY NOBUTYL ET Yes	111-76-2	2	25ppm skin	50 ppm	0.6

THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES WHICH ARE DEFINED AS TOXIC UNDER SECTION 313 OF SARA TITLE III AND 40 CFR 372:

XYLENE, GLYCOL ETHERS [redacted]

Section III—PHYSICAL DATA

BOILING RANGE (°F): 280-290 VAPOR DENSITY: [xx] HEAVIER [ ] LIGHTER THAN AIR

EVAPORATION RATE: [ ] FASTER [xx] SLOWER THAN ETHER PERCENT VOLATILE BY VOLUME: 28 WEIGHT PER GALLON: 7.95#

Section IV—FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: FLAMMABLE FLASH POINT (SETAFLASH): 85 °F LEL 0.9

OSHA Class IC

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep ... tightly closed ... oid sources of ignition. Ground all transfer equipment. Closed con... ...ers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES: Water spray (fog ...zzles) may be used for cooling closed containers. ...l protective equipment shou... use... ...rs to protect them from hazardous decomposition products liste... ...on VI.

MSDS

Section V—HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF OVEREXPOSURE: ACUTE

EYES - Can cause severe irritation, tearing, blurred vision.

SKIN - Prolonged or repeated contact can cause moderate irritation, drying, defatting, dermatitis.

INHALATION - Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and asphyxiation.

INGESTION - Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal.

EFFECTS OF OVEREXPOSURE: CHRONIC

Prolonged or repeated contact with skin may cause dermatitis.
Prolonged or repeated overexposure may cause anemia and kidney damage.
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

AGGRAVATED MEDICAL CONDITIONS

Pre-existing skin and respiratory disorders may be aggravated by exposure.

PRIMARY ROUTES OF ENTRY

Inhalation and skin contact.

EMERGENCY AND FIRST AID PROCEDURES: In case of skin contact, wash thoroughly with soap and water: for eyes, flush immediately with plenty of water for 15 minutes and call a physician. Remove and wash contaminated clothing before reuse. If exposed to high concentration of vapor remove patient to fresh air. If swallowed, CALL A PHYSICIAN IMMEDIATELY. DO NOT INDUCE VOMITING.

Section VI—REACTIVITY DATA

STABILITY: [ ] UNSTABLE [XX] STABLE

INCOMPATIBILITY (Materials to avoid): Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: As with any organic chemical, thermal decomposition will yield carbon dioxide and probably carbon monoxide.

HAZARDOUS POLYMERIZATION [ ] MAY OCCUR [XX] WILL NOT OCCUR

CONDITIONS TO AVOID: Sources of ignition, high temperatures.

Section VII—SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove sources of ignition, ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD: Incinerate in approved facility in accordance with local, state and federal regulations. Do not incinerate closed container.

Section VIII—SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NOISH approved respiratory device when airborne exposure limits are exceeded. Provide ventilation to control exposure levels below airborne exposure limits.
VENTILATION: All application areas should be ventilated in accordance with OSHA regulations.
PROTECTIVE GLOVES: Recommended.
EYE PROTECTION: Use approved safety eyewear with splash guards.
OTHER PROTECTIVE EQUIPMENT: Safety shower and eye bath.

Section IX—SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep away from heat, sparks and open flame Use only with adequate ventilation. Since emptied containers retain product residue (vapor or liquid), all labeled hazard precautions must be observed.

OTHER PRECAUTIONS: Avoid prolonged or repeated breathing of vapor or spray mist. Avoid contact with eyes and skin. Do not take internally.

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.

FAC[illegible] ON ***

CLEME[illegible] OMPANY

[illegible] O. [illegible]

[illegible] 3557

F[illegible]

DATE: May 10, 1990

No. of Pages 5 INCLUDING COVER SHEET.

[illegible] Phillip Cosen - Department 60, Campbell's - Napoleon

FROM: Sue Sobolaski - Clement "Coverall" Company

[illegible] Attached are the two MSDS Sheets requested. Both contai[illegible] [illegible]FA Warning, our Mr. Howard Salmon will call you [illegible] you may need regarding the report. He is [illegible] call you as soon as I am able to contact him.

[illegible] THE NUMBER OF PAGES INDICA[illegible]

[illegible] YOU.

1/03
Pl. Sec. + Utilit

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT NAME OR NUMBER (as it appears on label)
[redacted]

MANUFACTURER'S NAME
GROW GROUP, INC.

EMERGENCY TELEPHONE NO.
313-643-4600

ADDRESS (Number, Street, City, State and Zip Code)
3155 West Big Beaver Road, Suite 200 P.O. Box 7026 Troy, Michigan 48007-7026

MANUFACTURER'S D-U-N-S NO.
00-532-0551

HAZARDOUS MATERIALS DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS ID NO.
[redacted] Isopropyl Alcohol UN-1219

ADDITIONAL HAZARD CLASSES (as applicable)
Flammable Liquid

CHEMICAL FAMILY
[redacted]

FORMULA $(CH_3)_2CHOH$

SECTION II - INGREDIENTS

CAS REGISTRY NO.	%V	%W	CHEMICAL NAMES	Listed as a Carcinogen in NTP IARC or OSHA 1910
67-63-0	100		Isopropyl Alcohol	

SECTION III - PHYSICAL DATA

BOILING RANGE 177-181 XX °F °C	SPECIFIC GRAVITY (H_2O=1) 0.7813
VAPOR PRESSURE 33	PERCENT VOLATILE BY VOLUME 100%
@ 68°F °C XX mm Hg psi	PERCENT SOLID BY WEIGHT 0%
VAPOR DENSITY (AIR=1) 2.1	EVAPORATION RATE Slower than Ether
SOLUBILITY IN WATER 100%	pH Not Applicable
APPEARANCE AND ODOR Water white liquid	
IS MATERIAL: LIQUID XX SOLID GAS PASTE POWDER	

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

	Method Used		LEL	UEL
FLASH POINT 55 °F °C	T.C.C.	FLAMMABLE LIMITS	2%	12%

EXTINGUISHING MEDIA Carbon dioxide, dry chemical, foam.

SPECIAL FIRE FIGHTING PROCEDURES Use NIOSH approved self contained breathing apparatus. Cool exposed containers with water to prevent pressure buildup and/or rupture.

UNUSUAL FIRE AND EXPLOSION HAZARDS None known

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE 400 ppm (ACGIH)	OTHER LIMIT 400 ppm (OSHA)
PERMISSIBLE EXPOSURE LIMIT 400 ppm	400 ppm (Vendor)

EFFECTS OF OVEREXPOSURE - (Conditions to Avoid) Inhalation - Irritation of the respiratory tract; headache, nausea, dizziness, weakness and fatigue. Extreme exposure can result in unconsciousness and even respiratory arrest. Eye Contact - Severe irritant. Skin Contact - Prolonged and repeated liquid contact can cause defatting and drying of skin, which may result in skin irritation and dermatitis. CHRONIC: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

PRIMARY ROUTES OF ENTRY Inhalation, skin contact, swallowing

breathing becomes difficult, administer oxygen. If breathing ceases, restore using approved CPR techniques and summon medical assistance immediately. Eye Contact - Flush immediately with large amounts of water for at least 15 minutes. Consult a physician for medical treatment. Skin Contact - Wash affected areas with soap and water. Remove soiled clothing. Consult a physician if irritation persists. Ingestion - INDUCE VOMITING. Contact a physician immediately.

NOTICE: Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID	Heat, sparks, open flame.
	STABLE XX		

INCOMPATIBILITY (materials to avoid) Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS Thermal decomposition may yield carbon monoxide and carbon dioxide.

HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR XX	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Remove all sources of ignition (flames, hot surfaces, and electrical static or frictional sparks). Avoid breathing vapors. Ventilate area. Wear appropriate respirator and protective clothing. Dike and contain spilled material and remove with inert absorbent and non-sparking tools. Store in closed container until properly disposed of.

WASTE DISPOSAL METHOD Incinerate under safe conditions or dispose of in accordance with local, state and federal regulations.

CERCLA (Superfund) REPORTABLE QUANTITY (in lbs) One pound or refer to Section 311 Clean Water Act.

RCRA Hazardous Waste No. (40 CFR 261.33) D-001 Note: Number applies to thinner blend only.

VOLATILE ORGANIC COMPOUND (VOC) (as packaged, minus water) 100%

X Theoretical 6.505 lb/gal XX Analytical 6.505 lb/gal

RESPIRATORY PROTECTION (specify type) Use NIOSH/MSHA approved self contained breathing apparatus.

VENTILATION Use either local exhaust or mechanical to meet TLV requirements. Ventilation must be sufficient to limit employee exposure at, or below, OSHA TLV limit.

PROTECTIVE GLOVES Neoprene or equivalent.

EYE PROTECTION Safety glasses or goggles.

OTHER PROTECTIVE EQUIPMENT Eye bath and safety shower.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Keep away from heat, sparks, open flame. Use with adequate ventilation. Do not breathe vapors, do not get in eyes, on skin or clothing.

OTHER PRECAUTIONS Never use cutting or welding torch in, on or near containers, even empty, as product or residue may ignite.

Name	Walter Stuecken
Signature	Walter Stuecken
Title	Laboratory Manager
Date	November 4, 1985

MATERIAL SAFETY DATA SHEET

DIVISION OF ASHLAND OIL INC.
P. O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333
24-HOUR EMERGENCY TELEPHONE (606) 324-1133

Ashland

001447

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

PRODUCT NAME: S THINNER
CAS NUMBER: 8052 41 3

CAMPBELL SOUP
P. O. BOX 311
NAPOLEAN
OH 43545

05 SD 021 1470600-
DATA SHEET NO: 0000591-003
LATEST REVISION DATE: 03/26-86063
PRODUCT: 2518000
INVOICE: 944302
INVOICE DATE: 04/03/86
TO: CAMPBELL SOUP CO.
2550 WEST 35TH ST.
CHICAGO IL 60632

ATTN: PLANT MGR./SAFETY DIR.

SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: ALIPHATIC HYDROCARBON

DOT HAZARD CLASSIFICATION: COMBUSTIBLE (173.115)

SECTION II-COMPONENTS

INGREDIENT	% (BY WT)	PEL	TLV	NOTE
ALIPHATIC PETROLEUM DISTILLATES	>95	500	100 PPM	(1)

(1): NIOSH RECOMMENDS A LIMIT OF 350 MG/CUM - 8 HOUR TIME WEIGHTED AVERAGE, 1800 MG/CUM AS DETERMINED BY A 15 MINUTE SAMPLE.

SECTION III-PHYSICAL DATA

PROPERTY	REFINEMENT	MEASUREMENT
BOILING POINT	FOR PRODUCT	300.00 DEG F (148.88 DEG C)
VAPOR PRESSURE	FOR PRODUCT	@ 760.00 MMHG
SPECIFIC VAPOR DENSITY	AIR = 1	2.00 MMHG @ 68.00 DEG F (20.00 DEG C)
SPECIFIC GRAVITY		4.9
PERCENT VOLATILES		.770 @ 60.00 DEG F (15.55 DEG C)
EVAPORATION RATE	(ETHER = 1)	100.00%
		70.00

SECTION IV-FIRE AND EXPLOSION INFORMATION

FLASH POINT (100.00 DEG F 37.77 DEG C)

EXPLOSIVE LIMIT (PRODUCT) LOWER - 1.0%

EXTINGUISHING MEDIA: REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE WHEN FIGHTING FIRES.

SPECIAL FIRE & EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

NFPA CODES: HEALTH- 0 FLAMMABILITY- 2 REACTIVITY- 0

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL	500	PPM
THRESHOLD LIMIT VALUE	100	PPM

EFFECTS OF ACUTE OVEREXPOSURE: FOR PRODUCT

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION, DEFATTING, DERMATITIS.
BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, POSSIBLE UNCONSCIOUSNESS, AND EVEN ASPHYXIATION.
SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA. ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

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CONTINUED ON PAGE: 2

SECTION V-HEALTH HAZARD DATA (CONTINUED)

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED: DO NOT INDUCE VOMITING, KEEP PERSON WARM, QUIET, AND GET MEDICAL ATTENTION. ASPIRATION OF MATERIAL INTO THE LUNGS DUE TO VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION

SKIN CONTACT

SECTION VI-REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH:, STRONG OXIDIZING AGENTS.

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE, DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS. PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURED.

WASTE DISPOSAL METHOD:

SMALL SPILL: ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPORS TO COMPLETELY CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.

LARGE SPILL: DESTROY BY LIQUID INCINERATION. CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS UNDER SPECIFIED CONDITIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, NITRILE RUBBER

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

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LAST PAGE--SEE ATTACHMENT FOR [illegible]

Campbell's Soup P

THE FAX

Campbell Soup Company

Napoleon, Ohio 43545
Phone (419) 592-1010
PAYROLL –, Fax (419) 599-6614

Attention: Michael Terpinski

Company: EPA

From: Carolyn Oberhaus ext.

Pages: (including coversheet)

CODE R00000010701

SUN MINERAL SPIRITS

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

REVISION DATE: 08/30/1994
UN NUMBER- UN1256

PRIMARY APPLICATION- CHEMICAL INTERMEDIATE

O-Thinner

MANUFACTURER- SUN COMPANY, INC.
TEN PENN CENTER
1801 MARKET STREET
PHILADELPHIA PA 19103-1699

SYNONYMS.....: STODDARD SOLVENT
CAS REGISTRY NO: 8052-41-3
CAS NAME.....: STODDARD SOLVENT
CHEMICAL FAMILY: PETROLEUM HYDROCARBON
INFORMATION
SUPPLIER... JOANNE HOUCK
PHONE.....: (215) 977-6133

EMERGENCY PHONE NUMBERS (AFTER NORMAL BUSINESS HOURS)
SUN CO.. 1-800-964-8861
CHEMTREC. 1-800-424-9300

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT/CAS NO.	LO%	HI%	OSHA TWA	OSHA STEL	EXPOSURE GUIDELINES ACGIH TWA	ACGIH STEL	SUN/MFR TWA	SUN/MFR STEL	UNIT
LIMITS FOR THE PRODUCT:					NO SPECIFIC LIMIT				
STODDARD SOLVENT 8052-41-3	.00	100.0	100		100				PPM
1,2,4-TRIMETHYLBENZENE 95-63-6	.00	5.00	25		25				PPM
1,3,5-TRIMETHYLBENZENE 108 67-8	.00	5.00	25		25				PPM

ADDITIONAL EXPOSURE LIMITS ---------- SUN RECOMMENDATION
8 HR. TIME WEIGHTED PERMISSIBLE EXPOSURE- 100 PPM 300 MG/M3

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW ----

DANGER! COMBUSTIBLE LIQUID AND VAPOR. MAY CAUSE SKIN IRRITATION.
PULMONARY ASPIRATION HAZARD-CAN ENTER LUNGS AND CAUSE DAMAGE.

APPEARANCE-- CLEAR LIQUID. ODOR-- SOLVENT ODOR.

POTENTIAL HEALTH EFFECTS ----------

PRIMARY ROUTES OF ENTRY INHALATION(X) SKIN(X) EYE(X) INGESTION( )

INHALATION ----------

SUN MINERAL SPIRITS CODE R00000010701

LC50 IN RATS IS: > 5500 MG/M3, TIME 4 HRS. EXCESSIVE EXPOSURES MAY CAUSE IRRITATION TO EYES, NOSE, THROAT AND LUNGS. CENTRAL NERVOUS SYSTEM EFFECTS; DIZZINESS, LOSS OF BALANCE AND COORDINATION; UNCONSCIOUSNESS, COMA; RESPIRATORY FAILURE AND DEATH.

SKIN ----------
PRACTICALLY NON-TOXIC IF ABSORBED (LD50 GREATER THAN 2000 MG/KG). MAY CAUSE MODERATE IRRITATION WITH PROLONGED OR REPEATED CONTACT. REMOVES NATURAL OILS & FATS FROM SKIN. DRAIZE SKIN IRRITATION SCORE IS: 4.5 OUT OF 8.0. DERMAL LD50 IN RABBITS IS: > 3,000 MG/KG.

EYE ----------
CONTACT WITH THE EYE MAY CAUSE MINIMAL IRRITATION. DRAIZE EYE IRRITATION SCORES ARE: SEE SECTION 11 - ACUTE TOXICITY

INGESTION ----------
ORAL LD50 IN RATS IS: > 5 G/KG. HARMFUL OR FATAL IF SWALLOWED. PULMONARY ASPIRATION HAZARD IF SWALLOWED AND/OR VOMITING OCCURS - CAN ENTER LUNGS AND CAUSE DAMAGE.

CARCINOGEN LISTED BY-IARC(NO) NTP(NO) OSHA(NO) ACGIH(NO) OTHER(NO)

PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE-
DISORDERS OR DISEASES OF THE SKIN, EYE, LIVER, KIDNEY, NERVOUS SYSTEM, RESPIRATORY AND/OR PULMONARY SYSTEM, LUNG (E.G. ASTHMA-LIKE CONDITIONS).

4. FIRST AID MEASURES

INHALATION ----------
MOVE PERSON TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, OBTAIN MEDICAL ASSISTANCE.

SKIN ----------
WASH WITH SOAP AND WATER UNTIL NO ODOR REMAINS. IF REDNESS OR SWELLING DEVELOPS, OBTAIN MEDICAL ASSISTANCE. WASH CLOTHING BEFORE REUSE.

EYE ----------
FLUSH WITH WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, OBTAIN MEDICAL ASSISTANCE.

INGESTION ----------
DO NOT INDUCE VOMITING! DO NOT GIVE LIQUIDS! OBTAIN EMERGENCY MEDICAL ATTENTION. SMALL AMOUNTS WHICH ACCIDENTALLY ENTER MOUTH SHOULD BE RINSED OUT UNTIL TASTE OF IT IS GONE.

5. FIRE FIGHTING MEASURES

FLASH POINT: 105 MINIMUM TCC (DEG. F); 40.5 MIN TCC (DEG. C)
AUTOIGNITION TEMP.: 540 ESTIMATED (DEG. F); 282 ESTIMATED (DEG. C)

---FLAMMABLE LIMITS IN AIR---
LOWER EXPLOSIVE LIMIT (LEL): ESTIMATED 0.8 % VOLUME
UPPER EXPLOSIVE LIMIT (UEL): ESTIMATED 5.0 % VOLUME

FIRE AND EXPLOSION HAZARDS ----------
COMBUSTIBLE (FLASH POINT 100 TO 200F)

EXTINGUISHING-MEDIA ----------
WATER SPRAY. REGULAR FOAM. DRY CHEMICAL. CARBON DIOXIDE.

SPECIAL FIRE FIGHTING INSTRUCTIONS ----------

CODE R00000010701

SUN MINERAL SPIRITS

COOL TANK/ CONTAINER. WEAR SELF-CONTAINED BREATHING APPARATUS. WEAR STRUCTURAL FIREFIGHTERS PROTECTIVE CLOTHING.

NFPA/HMIS CLASSIFICATION
HEALTH - 1 / 1
FIRE - 2 / 2
REACTIVITY - 0 / 0
PERSONAL PROTECTION INDEX - X

HAZARD RATING
0=LEAST 1=SLIGHT
2=MODERATE 3=HIGH
4=EXTREME

SPECIFIC HAZARD: COMBUSTIBLE LIQUID

6. ACCIDENTAL RELEASE MEASURES

PREVENT IGNITION; STOP LEAK; VENTILATE AREA. CONTAIN SPILL. WEAR RESPIRATORY PROTECTION FOR LARGE SPILL, LEAK OR RELEASE. USE PERSONAL PROTECTIVE EQUIPMENT STATED IN SECTION 8. ADVISE EPA; STATE AGENCY IF REQUIRED. ABSORB ON INERT MATERIAL. SHOVEL, SWEEP OR VACUUM SPILL.

7. HANDLING AND STORAGE

KEEP AWAY FROM HEAT, SPARKS AND FLAME. KEEP CONTAINER TIGHTLY CLOSED. NFPA CLASS II STORAGE. TRANSFER OPERATIONS MUST BE ELECTRICALLY GROUNDED TO DISSIPATE STATIC BUILDUP. WASH THOROUGHLY AFTER HANDLING. NEVER SIPHON BY MOUTH.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

CONSULT WITH A HEALTH/SAFETY PROFESSIONAL FOR SPECIFIC SELECTION.

VENTILATION ----------
USE ONLY WITH ADEQUATE VENTILATION. VENTILATE AS NEEDED TO COMPLY WITH EXPOSURE LIMIT.

PERSONAL PROTECTIVE EQUIPMENT ----------
EYE ----------
SPLASH PROOF CHEMICAL GOGGLES OR FULL FACE SHIELD RECOMMENDED TO PROTECT AGAINST SPLASH OF PRODUCT.
GLOVES ----------
PROTECTIVE GLOVES RECOMMENDED WHEN PROLONGED SKIN CONTACT CANNOT BE AVOIDED. THE FOLLOWING GLOVE MATERIALS ARE ACCEPTABLE: POLYETHYLENE; NEOPRENE; NITRILE; POLYVINYL ALCOHOL; VITON;
RESPIRATOR ----------
CONCENTRATION-IN-AIR DETERMINES PROTECTION NEEDED. USE ONLY NIOSH CERTIFIED RESPIRATORY PROTECTION. HALF-MASK AIR PURIFYING RESPIRATOR WITH ORGANIC VAPOR CARTRIDGES IS ACCEPTABLE TO 10 TIMES THE EXPOSURE LIMIT. FULL-FACE AIR PURIFYING RESPIRATOR WITH ORGANIC VAPOR CARTRIDGES IS ACCEPTABLE TO 50 TIMES THE EXPOSURE LIMIT NOT TO EXCEED THE CARTRIDGE LIMIT OF 1000 PPM. PROTECTION BY AIR PURIFYING RESPIRATORS IS LIMITED. USE A POSITIVE PRESSURE-DEMAND FULL-FACE SUPPLIED AIR RESPIRATOR OR SCBA FOR EXPOSURES ABOVE 50X THE EXPOSURE LIMIT. IF EXPOSURE IS ABOVE IDLH(IMMEDIATELY DANGEROUS TO LIFE & HEALTH) OR THERE IS THE POSSIBILITY OF AN UNCONTROLLED RELEASE OR EXPOSURE LEVELS ARE UNKNOWN THEN USE A POSITIVE PRESSURE-DEMAND FULL-FACE SUPPLIED AIR RESPIRATOR WITH ESCAPE BOTTLE OR SCBA.

OTHER ----------
IF CONTACT IS UNAVOIDABLE, WEAR CHEMICAL RESISTANT CLOTHING. THE FOLLOWING MATERIALS ARE ACCEPTABLE AS PROTECTIVE CLOTHING MATERIALS: POLYVINYL ALCOHOL(PVA); NEOPRENE; NITRILE; VITON; POLYURETHANE; SAFETY SHOWER AND EYE WASH AVAILABILITY RECOMMENDED. LAUNDER SOILED CLOTHES. FOR NON-FIRE EMERGENCIES, POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) & STRUCTURAL FIREFIGHTERS' PROTECTIVE CLOTHING WILL PROVIDE LIMITED PROTECTION.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT.....: 300 TO 390 (DEG. F) _____ 149 TO 199 (DEG. C)
MELTING POINT.....: N/A (DEG. F) _____ N/A (DEG. C)
SPECIFIC GRAVITY....: 0.79 (WATER=1)
PACKING DENSITY.....: N/A (KG/M3)
VAPOR PRESSURE.....: 6 (MM HG @ 41 DEG C)
VAPOR DENSITY.....: 3.9 (AIR=1)
SOLUBILITY IN WATER.: NIL (% BY VOLUME)
PH INFORMATION.....: N/A AT CONC. N/A G/L H2O
% VOLATILES BY VOL..: 100
EVAPORATION RATE....: 40X SLOWER (ETHYL ETHER=1)
OCTANOL/WATER COEFF.: N.D.
APPEARANCE.....: CLEAR LIQUID.
ODOR.....: SOLVENT ODOR.
ODOR THRESHOLD.....: N.D. (PPM)
VISCOSITY.....: N/A SUS @ N/A DEG F ... N/A CST @ N/A DEG C
MOLECULAR WEIGHT....: N/A (G/MOLE)

10. STABILITY AND REACTIVITY

STABILITY ----------
STABLE.
INCOMPATIBLE MATERIALS ----------
STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION ----------
COMBUSTION WILL PRODUCE CARBON MONOXIDE AND ASPHYXIANTS
POLYMERIZATION ----------
WILL NOT OCCUR.

11. TOXICOLOGICAL INFORMATION

FOR THE PRODUCT ----------
ACUTE TOXICITY
LC50 IN RATS IS: > 5500 MG/M3, TIME 4 HRS. DRAIZE SKIN IRRITATION SCORE IS: 4.5 OUT OF 8.0. DERMAL LD50 IN RABBITS IS: > 3,000 MG/KG. DRAIZE EYE IRRITATION SCORES ARE: 1.0 0.0 0.0 0.0 OUT OF 110.0 AT 24 48 72 168 HOURS. ORAL LD50 IN RATS IS: > 5 G/KG.

INHALATION: OVEREXPOSURE TO MIST OR VAPORS MAY CAUSE EYE, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION, CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS, DIZZINESS, LOSS OF BALANCE AND COORDINATION, UNCONSCIOUSNESS, COMA, RESPIRATORY FAILURE, DEATH. SKIN: PRACTICALLY NON-TOXIC IF ABSORBED. PROLONGED OR REPEATED CONTACT MAY CAUSE MODERATE IRRITATION. EYE: MINIMAL IRRITATION ON CONTACT. ORAL: HARMFUL OR FATAL IF SWALLOWED AND/OR VOMITING OCCURS BECAUSE IT CAN ENTER THE LUNGS AND

CODE R00000010701

SUN MINERAL SPIRITS

CAUSE DAMAGE--PULMONARY ASPIRATION HAZARD.

STODDARD SOLVENT (COMPONENT)
INHALATION: OVEREXPOSURE TO MIST OR VAPOR MAY CAUSE IRRITATION TO EYE, NOSE, THROAT, RESPIRATORY TRACT, CNS (BRAIN) EFFECTS, DIZZINESS. GROSS OVEREXPOSURE MAY CAUSE TREMOR, CONVULSIONS, UNCONSCIOUSNESS, RESPIRATORY FAILURE, DEATH. SKIN: PROLONGED/REPEATED CONTACT MAY CAUSE IRRITATION & DERMATITIS. EYE: MINIMALLY IRRITATING ON CONTACT. INGESTION: LOW ACUTE TOXICITY. PULMONARY ASPIRATION HAZARD - HARMFUL OR FATAL IF SWALLOWED AND/OR VOMITING OCCURS BECAUSE IT CAN ENTER THE LUNGS AND CAUSE DAMAGE.

1,2,4-TRIMETHYLBENZENE (COMPONENT)
INHALATION: MODERATELY TOXIC. VAPOR OR MIST IRRITATES THE EYES, MUCOUS MEMBRANES, RESPIRATORY TRACT. OVEREXPOSURE MAY CAUSE CENTRAL NERVOUS SYTEM (BRAIN) EFFECTS, NARCOTIC EFFECTS, NAUSEA, HEADACHE, DIZZINESS, INCOORDINATION, UNCONSCIOUSNESS, COMA, DEATH. SKIN: CAN BE ABSORBED. CONTACT MAY CAUSE IRRITATION AND DERMATITIS. EYE: IRRITATING INGESTION: MODERATELY TOXIC. SYMPTOMS SIMILAR TO INHALATION. HARMFUL OR FATAL IF SWALLOWED. PULMONARY ASPIRATION HAZARD- HARMFUL OR FATAL BECAUSE IT CAN ENTER THE LUNGS AND CAUSE DAMAGE.

1,3,5-TRIMETHYLBENZENE (COMPONENT)
INHALATION: VAPOR HARMFUL! OVEREXPOSURE MAY CAUSE EYE, NOSE, THROAT, & RESPIRATORY TRACT IRRITATION, CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS, HEADACHE, NAUSEA, DROWSINESS, PERIPHERAL NERVE DAMAGE, INCOORDINATION, UNCONSCIOUSNESS, COMA, OR DEATH. SKIN: MILD TO MODERATE IRRITATION WITH PROLONGED OR REPEATED CONTACT. EYE: MILD TO MODERATE IRRITATION. ORAL: HARMFUL OR FATAL IF SWALLOWED. PULMONARY ASPIRATION HAZARD IF SWALLOWED AND/OR VOMITING OCCURS- CAN ENTER THE LUNGS AND CAUSE DAMAGE

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY ----------

NO DATA AVAILABLE

13. DISPOSAL CONSIDERATIONS

FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS. RCRA HAZARDOUS WASTE. DO NOT FLUSH TO DRAIN/ STORM SEWER. CONTRACT TO AUTHORIZED DISPOSAL SERVICE.

14. TRANSPORTATION INFORMATION

DOT-
PROPER SHIPPING NAME- NAPHTHA, SOLVENT
HAZARD CLASS- 3 (FLAMMABLE LIQUID)
IDENTIFICATION NUMBER- UN1256
LABEL REQUIRED- PG III

IMDG- PROPER SHIPPING NAME- NO DATA AVAILABLE

IATA- PROPER SHIPPING NAME- NO DATA AVAILABLE

09/01/1988 12

SUN-MINERAL SPIRITS CODE R00000010701

15. REGULATORY INFORMATION

SARA 302 THRESHOLD PLANNING QUANTITY. N/A

SARA 304 REPORTABLE QUANTITY ..... N/A

SARA 311 CATEGORIES- IMMEDIATE (ACUTE) HEALTH EFFECTS.. Y
DELAYED (CHRONIC) HEALTH EFFECTS.. N
FIRE HAZARD ..... Y
SUDDEN RELEASE OF PRESSURE HAZARD. N
REACTIVITY HAZARD ..... N

WHEN A PRODUCT AND/OR COMPONENT IS LISTED BELOW, THE REGULATORY LIST ON WHICH IT APPEARS IS INDICATED.

FOR THE PRODUCT - FL MA MN NJ PA
STODDARD SOLVENT - MA NJ PA RI
1,2,4-TRIMETHYLBENZENE - MA NJ PA 01
1,3,5-TRIMETHYLBENZENE - MA NJ RI

01=SARA 313
02=SARA 302/304
03=IARC CARCINOGEN
04=OSHA CARCINOGEN
05=ACGIH CARCINOGEN
06=NTP CARCINOGEN
07=CERCLA 302.4
08=WHMIS CONTROLLED PROD.
10=OTHER CARCINOGEN
PA=PENNSYLVANIA RTK
NJ=NEW JERSEY RTK
CA=CALIFORNIA PROP 65
MA=MASSACHUSETTS RTK
MI=MICHIGAN 406
MN=MINNESOTA RTK
FL=FLORIDA
RI=RHODE ISLAND
IL=ILLINOIS
NY=NEW YORK
WV=WEST VIRGINIA
CT=CONNECTICUT
LA=LOUISIANA
ME=MAINE
OH=OHIO

THIS PRODUCT OR ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE U.S. TSCA INVENTORY.

16. OTHER INFORMATION

CAUTION! COMBUSTIBLE. DANGER! HARMFUL OR FATAL IF SWALLOWED. KEEP AWAY FROM HEAT AND OPEN FLAME. KEEP CONTAINER CLOSED. USE ONLY WITH ADEQUATE VENTILATION. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. AVOID PROLONGED BREATHING OF MIST OR VAPOR. IF SWALLOWED, DO NOT INDUCE VOMITING, CALL PHYSICIAN IMMEDIATELY. "HAZARDOUS WHEN EMPTY" PICTORAL DRUM LABEL. WHMIS CLASSIFICATION: CLASS B; DIVISION 3. TDG CLASS 3.3 FLAMMABLE LIQUID III.

* * * * * END OF MSDS* * * * * *

Campbell's Soup

Campbell Soup Company

NAPOLEON, OHIO 43545

RECEIVED
MAY 27 1999
OHIO E.P.A.
N.W.D.O.

May 26, 1999

Mr. Mike Terpinski
Northwest District Office Ohio E.P.A.
347 N. Dunbridge Road
Bowling Green, OH 43402

SUBJECT: Campbell Name Change

Dear Mr. Terpinski:

Campbell Soup Company is implementing a new business structure that will be comprised of three companies: *Campbell Soup Company, Campbell Sales Company, and Campbell Soup Supply Company.*

Campbell Soup Supply Company will be a wholly owned subsidiary of Campbell Soup Company. Effective August 2, 1999 *Campbell Soup Supply Company* will operate most of the U.S. manufacturing facilities, including the Napoleon plant.

Therefore, we request that the existing Campbell Soup Hazardous Waste Generator ID's OHD005419171 and OHD987046703 be reassigned or transferred to the new *Campbell Soup Supply Company*, Napoleon plant, effective August 2, 1999.

Please contact me at 419-592-1010 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

L. M. Brown
V. P. Mfg. – Napoleon Operations

JLS:sas

cc: O. Aly (Campbell Soup - WHQ)
M. Maringer (Campbell Soup - Napoleon)
R. Furbee (Campbell Soup - Napoleon)

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
1800 WaterMark Drive
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

RECEIVED
AUG 16 1999
OHIO E.P.A.
N.W.D.O.

Imthurn
Defiance Co

August 12, 1999

Norma Carter, Esq.
Deputy General Counsel
Campbell Soup Company, Inc.
Campbell Place
Camden, NJ 08103

CERTIFIED MAIL

Re: Campbell Soup Company
Napoleon, OH Facility
Request for Information

Dear Ms. Carter:

This is a request for information by the Ohio Environmental Protection Agency's (Ohio EPA) Division of Hazardous Waste Management (DHWM) regarding the waste management practices of the Campbell Soup Company Facility ("Campbell") located at 641 Heller Drive, Napoleon, Ohio, 43832, and the disposal facility known as the "Imthurn Drum Site ("Imthurn"), located at 585 The Bend Road, Ney, Ohio 43549. Ohio EPA is seeking information regarding Campbell and Imthurn pursuant to its authority under Ohio Revised Code (ORC) Sections 3734.20 and 6111.05.

The Agency has determined that conditions at Imthurn, a solid waste facility, hazardous waste facility and/or other location where hazardous waste has been treated, stored, or disposed, constitute a substantial threat to public health or safety, or are causing or contributing to or threatening to cause or contribute to air or water pollution or soil contamination. Ohio EPA's DHWM requests that Campbell provide the following information. If copies of any report or information requested have previously been submitted to Ohio EPA, rather than resubmit duplicate documents, please identify the individual and location to which they were submitted.

1. Please identify all persons, by name, address and telephone number, who were consulted in the preparation of the answers to these questions.

2. Please identify all documents consulted, examined or referred to in the preparation of the answers to these questions.

3. Please state the full legal name, and date and location of incorporation, as applicable, for the following entity: Campbell Soup Company. (If this entity is a partnership, please describe the nature of the partnership, whether general or limited, and identify the names and

addresses of the partners.) Please identify the owner and operator of the Campbell facility in Napoleon, Ohio; if this facility is owned and/or operated by a division or wholly owned subsidiary of Campbell Soup Company, please identify such. Describe the legal relationship between all entities identified in response to this question.

4. Please specifically identify all waste materials and/or waste streams generated by Campbell between the years 1979 and the present. This includes, but is not limited to the following: solid waste (as defined in ORC § 3734.01), hazardous waste (as defined in ORC § 3734.01), and/or industrial or other waste (as defined in ORC § 6111.01). Please include, to the extent possible, information about volumes of wastes generated.

5. Please provide all available documentation of each waste material or waste stream identified in #4, above, including, but not limited to, Material Safety Data Sheets and waste analyses.

6. Please identify any material, produced as a by-product of, or incidental to, the Campbell manufacturing process which, from the years 1979 to the present, was sold by Campbell, or given at no charge by Campbell, to any person for any purpose other than waste disposal. Please identify such material by volume, and chemical constituents.

7. Please provide all available documentation of each material, waste material or waste stream identified in #6, above, including, but not limited to, Material Safety Data Sheets and waste analyses.

8. Please identify, by name, address, and telephone number, the individual(s) who received any material described in #6, above.

9. Please identify, for each waste material or waste stream described in response to questions above, the manner of disposal which was utilized by Campbell; if such manner of disposal included reuse and/or recycling, including burning for energy recovery, please so identify.

10. Please identify all off-site disposal, reuse, recycling and/or reclamation facilities to which Campbell transported, or caused to be transported, waste between the years 1979 to the present. For each such location, please identify, by name, address, and telephone number, the facility to which the waste transported, and a description of the waste material so transported.

11. Please provide all available documentation of the manner(s) of disposal described above, including, but not limited to, hazardous waste manifests, receipts, and/or invoices.

12. Please identify, by name, address, and telephone number, all waste transporters used by

Campbell from the years 1979 through the present.

13. Please provide a detailed description of all waste disposal, reuse, and/or recycling, including burning for energy recovery, which occurred on the Campbell facility between the years 1979 and the present. Please specifically identify areas on the Campbell facility where such waste disposal, reuse, and/or recycling, including burning for energy recovery, occurred.

14. Provide copies of all reports, sampling and analysis results for areas of the property owned by Campbell in Napoleon, OH, that have been subjected to sampling and analysis of soil, groundwater, surface water, effluent and/or sediment.

15. Please identify all persons, by name, address and telephone number, currently or formerly employed by Campbell having knowledge or information about the generation, transportation, treatment, disposal or other handling of waste material, including material described in your responses to #6 and #10, above.

16. If you have reason to believe that there may be persons able to provide a more detailed or complete response to any of the questions contained herein, or who may be able to provide additional responsive documents, please identify such persons by name, address and telephone number.

17. Please provide a certification statement as follows for all information submitted: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in responding to this Information Request. Based on my review of all relevant documents and inquiry of those individuals immediately responsible for providing all relevant information and documents, I believe that the information submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The information must be provided notwithstanding its possible characterization as confidential information or trade secrets. You may request, however, that any such information be handled as a trade secret in accordance with the provisions of OAC Rules 3745-49-03 and 3745-50-30. A request for confidential treatment must be made when the information is submitted, since any information not so identified will not be accorded this protection by Ohio EPA. Please submit the information requested herein within forty-five (45) days of the date of this request to:

Frances M. Kovac
Ohio Environmental Protection Agency
Legal Office
Lazarus Government Center
122 South Front Street
P.O. Box 1049
Columbus, Ohio 43215-1049

Failure to provide the requested information may result in the exercise of the Ohio EPA's enforcement authority, including but not limited to, the exercise of its authority to inspect Campbell and any records in its possession which may pertain to the management and/or disposal of hazardous waste, hazardous constituents, industrial waste, or other waste. Please do not hesitate to contact me at (614) 644-2844, if you have any related questions or concerns. Thank you for your prompt attention to this request.

Sincerely,

Frances M. Kovac

Frances M. Kovac
Staff Attorney

cc: Pamela S. Allen, DHWM
Jeanette Smith, DHWM, CAS
Isaac Wilder, DHWM, CAS
Lorma Wendt, DHWM, NWDO
Campbell's Soup file
Smitheran file

Campbell Soup

Campbell SOUP Company

RECEIVED
JUL 25 1995
OHIO E.P.A.
N.W.D.O.

NAPOLEON, OHIO 43545

July 10, 1995

Mr. Gary Deutschman
Environmental Specialist
Ohio Environmental Protection Agency
Division of Hazardous Waste
Northwest District Office
347 N. Dunbridge Road
Bowling Green, OH 43402

Mr. Deutschman:

Enclosed you will find updated Regulated Waste Activity Notification forms for our main and V8 plants. Please feel free to call me at 419-599-6794 if you have any questions.

Sincerely,

Campbell SOUP Company

Jon Scott

Jon Scott
Environmental Engineer

Main Plant

Please print or type with ELITE type (12 char. s per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 9-30-96
GSA No. 0246-EPA-OT

Please refer to the *Instructions for Filling Notification* before completing this form. The information requested here is required by law (Section 3010 of the *Resource Conservation and Recovery Act*).

EPA Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received (For Official Use Only)

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[ ] A. First Notification [X] B. Subsequent Notification *(Complete item C)*

C. Installation's EPA ID Number: OHD005419171

II. Name of Installation *(Include company and specific site name)*

CAMPBELL SOUP COMPANY

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street: 12-773 STATE ROUTE 110

Street (Continued):

City or Town: NAPOLEON | State: OH | Zip Code: 43545-

County Code: | County Name: HENRY

IV. Installation Mailing Address *(See Instructions)*

Street or P.O. Box: SAME

City or Town: | State: | Zip Code: -

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name *(Last)*: SCOTT | *(First)*: JON

Job Title: ENV. ENGINEER | Phone Number *(Area Code and Number)*: 419-599-6794

VI. Installation Contact Address *(See Instructions)*

A. Contract Address Location [X] Mailing [ ] Other [ ] | B. Street or P.O. Box:

City or Town: | State: | Zip Code: -

VII. Ownership *(See Instructions)*

A. Name of Installation's Legal Owner: CAMPBELL SOUP COMPANY

Street, P.O. Box, of Route Number: 12-773 STATE ROUTE 110

City or Town: NAPOLEON | State: OH | Zip Code: 43545-

Phone Number *(Area Code and Number)*: 419-592-1010 | B. Land Type: P | C. Owner Type: P | D. Change of Owner Indicator: Yes [ ] No [X] | (Date Changed) Month Day Year:

Continued on Reverse

Main Plant

Please print or type with ELITE type (haracters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 9-30-96
GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes; Refer to Instructions)*

A. Hazardous Waste Activity

1. Generator (See Instructions)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☒ b. 100 to 1000 kg/mo (200-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ 5. Other - specify

☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity; see instructions.

4. Hazardous Waste Fuel
   - ☐ a. Generator Marketing to Burner
   - ☐ b. Other Marketers
   - ☐ c. Boiler and/or Industrial Furnace
     - ☐ 1. Smelter Deferral
     - ☐ 2. Small Quantity Exemption

Indicate Type of Combustion Device(s)
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace

☐ 5. Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Fuel Marketer
   - ☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device(s)
   - ☐ a. Utility Boiler
   - ☒ b. Industrial Boiler
   - ☐ c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Activity(ies)
   - ☐ a. Transporter
   - ☐ b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Process
   - ☐ b. Re-refine

IX. Description of Hazardous Wastes *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))

B. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
D001	D008	F001	F005	D009	
7	8	9	10	11	12

C. Other Wastes. *(State or other wastes requiring a handler to have an I.D. number; See instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title *(Type or print)*	Date Signed
Raymond P. Oldach	Ray Oldach - Plant Manager	7/21/95

XI. Comments

Installation contact was changed on this revision.

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section III of the booklet for addresses.)*

Campbell Soup X **2002**

12-773 SR 110, Napoleon — OHD 005 419 171

Henry County — MAIN PLANT — DHWM

Smead®

UPC 10330

No. 153L

MINIMUM RECYCLED CONTENT • 10% POST-CONSUMER

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

11-10-03
Campbell Soup

Andrew Dosh
11/04/2003 08:23 AM

To: Mike Maringer/US/CAMPSOUP/CSC@CSC
cc: Robert Counselman/US/CAMPSOUP/CSC@CSC
Subject: Video Jet Information

We use the following **Easterday** Products:

Make Up **#800**-all locations
Jet Ink **#1325**-Before cookers. Black to Red color change when heated
Jet Ink **#3000**-After cookers. Blue color 45% MEK
Jet Ink **#3200**-Pouch line only 47% MEK

Should you have any questions, please advise.

Andrew Dosh
(419) 592-1010 ext. 6598
(419) 599-6748 FAX

MIKE

MATERIAL SAFETY DATA SHEET

Product Code: 03294

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

IDENTITY (As Used on Label and List): #1325 Black to Red Jet Ink

SECTION I - Product Identification

Manufacturer Name and Address:
EASTERDAY FLUID TECHNOLOGIES, INC.
4343 S. KANSAS AVENUE
MILWAUKEE, WI. 53207-5327
USA

Telephone Numbers:
MANUFACTURER (414)482-4488
CHEMTREC (800)424-9300

Date Entered: 01/25/2000 Revision: 02/25/2000 Printed: 11/04/2003

Chemical Family:
DOT Hazard Label:

SECTION II - Hazardous Ingredients/Identity Information

	Hazardous Components (Specific Chemical Identity/Co	CAS #:	Percentage 43%	
1.	Methyl ethyl ketone {MEK; 2-Butanone}	78-93-3	0.0 -100.0	%
2.	Ethyl alcohol {Ethanol}	64-17-5	0.0 -100.0	%
3.	2-Propanol, 1-Methoxy- {Propylene glycol methyl ether}	107-98-2	0.0 -100.0	%
4.	Propanol, (2-Methoxymethylethoxy)- {(not 313)}	34590-94-8	0.0 -100.0	%

No heavy metals used in colorants

	OSHA PEL	ACGIH TLV
1.	200 ppm	300 ppm
2.	1000 ppm	1000 ppm
3.	100 ppm	100 ppm
4.	100 ppm	150 ppm

SECTION III - Physical/Chemical Characteristics

Physical States: [ ] Gas [X] Liquid [ ] Solid
Boiling Point: 175.00 F to 177.00
Melting Point: 32.00 F
Specific Gravity (Water = 1): . . . . 0.81 at 68.0 F
Vapor Pressure (vs. Air or mm Hg):. . 83 at 75.0 F
Vapor Density (vs. Air = 1):. . . . . >1
Evaporation Rate (vs Butyl Acetate=1): 6.0
Solubility in Water:. . . . . 26.30 at 68.0 F
Percent Volatile: . . . . . .
pH: . . . . . .
Appearance and Odor
Black Liquid

SECTION IV - Fire and Explosion Hazard Data

Flash Pt: 25.00 F
Method Used: tcc
Explosive Limits: LEL: 1.8 UEL: 11.5
Extinguishing Media

Product Code: 03294
Product Name: #1325 Black to Red Jet Ink

Special Fire Fighting Procedures

GENERAL HAZARD:
Flammable Liquid; may release vapors that form flammable mixtures when temperatures are at or above the flash point. Toxjc gasses will form upon combustion.
FIRE FIGHTING INSTRUCTIONS:
Either allow fire to burn out under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam. Use water spray to cool fire exposed surfaces. Avoid spraying water directly into storage containers due to danger of boilover. Shut off fuel to fire if possible to do so without hazard. If a spill has not ignited, use water spray to disperse the vapors.
FIRE FIGHTING E(~UIPMENT:
Respiratory and eye protection required for fire fighting personnel. Full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA) should be used for all
indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required.

Unusual Fire and Explosion Hazards

SECTION V - Reactivity Data

Stability: Unstable [ ] Stable [X]
Conditions To Avoid - Instability
This product is stable and hazardous polymerization will not occur
Incompatibility - Materials To Avoid
Strong oxidizing agents
Hazardous Decomposition Or Byproducts
HAZARDOUS COMBUSTION PRODUCTS: Smoke, fumes, and oxides of carbon.

Hazardous Polymerization: Will occur [ ] Will not occur [X]
Conditions To Avoid - Hazardous Polymerization
Will not occur.

SECTION VI - Health Hazard Data

Route(s) of Entry: Inhalation? No Skin? No Eyes? No Ingestion? No
Health Hazards (Acute and Chronic)
POTENTIAL HEAL TH EFFECTS:
INHALATION:
High vapor concentrations are irritating to the nose, throat, and lungs; may cause unconsciousness or other signs of central nervous system depression.
EYE CONT ACT:
Liquid and vapolrs are irritating to eyes. Can cause severe injury.
SKIN CONT ACT:
Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).May cause skin sensitization, an allergic reaction which becomes evident on re-exposure to this material.
INGESTION:
Small amounts of this liquid may be drawn into the lungs by either swallowing or vomiting. This may cause severe and delayed health effects such as inflammation of the lungs (pulmonary edema) and infection of the bronchi (bronchopneumonia). Ingestion may cause irritation of digestive tract and diarrhea.

Product Code: 03294
Product Name: #1325 Black to Red Jet Ink

CHRONIC EFFECTS:
There is no evidence that exposure to Methyl Ethyl Ketone (MEK, 2-Butanone) alone causes progressive or irreversible neurotoxic effects. However, simultaneous over-exposure to MEK and n-Hexane can potentiate the known irreversible neurotoxic effects of n-Hexane. There is no reported human evidence that these neurotoxic effects occur when exposure to both chemicals is maintained below established OSHA and ACGIH limits.

Carcinogenitics: NTP? No IARC Monographs? No OSHA No
Carcinogenicity/Other Information
NONE OF THE ABOVE ARE LISTED UNDER IARC-NPT-OSHA-ACGIH
Recommended Exposure Limits:
LD 50/LC 50:
Signs and Symptoms Of Exposure
Medical Conditions Generally Aggravated By Exposure
Emergency and First Aid Procedures
INHALATION:
Emergency Responders should use positive pressure air supplied respiratory protection when removing the affected victim from area. Keep the victim at rest. Give artificial respiration if breathing has stopped. Call for prompt medical attention.
EYE CONT ACT:
Immediately flush eyes thoroughly with water and continue flushing for at least 15 minutes. Seek medical attention.
SKIN CONT ACT:
Immediately flush with large amounts of water; use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. Wash clothing before re-use. If irritation persists, seek medical attention.
INGESTION:
If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention

Note to Physician

SECTION VII - Precautions for Safe Handling and Use

Steps To Be Taken In Case Material Is Released Or Spilled
LAND SPILL:
Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill. Eliminate ignition source. Isolate hazard area
and deny entry to unauthorized or unprotected personnel. Shut off leak if safe to do so. Avoid runoff into storm sewers and ditches which lead to natural waterways. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Absorb spill with an inert material (e.g., dry sand or earth). Then place in a chemical waste container.
WATER SPILL:
Remove from water surface by skimming or with suitable absorbents. If allowed by local environmental regulatory agencies, you may use a suitable dispersant.

Waste Disposal Method
Consult an expert on the disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Suggested methods: Incineration or recover by distillation.

Product Code: 03294
Product Name: #1325 Black to Red Jet Ink

Precautions To Be Taken in Handling and Storing
Storage: Ambient

GENERAL:
Keep container closed .
Loosen closure cautiously before opening.
Store in a well ventilated place away from incompatible materials. Keep away from heat, sparks and flame. Protect material from direct sunljght.
Ground and bond containers when transferring materials. Do not breathe vapor.
Avoid contact with skin, eyes, and clothing.

Precautions To Be Taken in Storing
Other Precautions

SECTION VIII- Control Measures

Respiratory Equipment (Specify Type)
Ventilation
The use of mechanical dilution ventilation is recommended whenever this product is used in a confined space, is heated above ambient temperatures, or is agitated. Use explosion-proof ventilation equipment- PERSONAL PROTECTION:
Where exposure is likely to exceed acceptable criteria use NIOSH / MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminant in air and in accordance with OSHA (29 CFR 1910.134)

Eye Protection
Protective Gloves
Other Protective Clothing
Wear gloves an protective clothing which are impervious to this product for the duration of anticipated exposure if there is potential for skin contact
Work/Hygienic/Maintenance Practices

SECTION IX - Additional Comments

NOTE:
The flash point of this product has not been determined. The solvent with the lowest flash point of the mixture was used.

DISCLAIMER OF LIABILITY .
The information contained herein is based on the data available to us and is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we assume no liability for damages incurred by use of this material. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which may exist. Users of any product shoul(j satisfy themselves that the conditions and methods of use assure that the product is used safely. No representations or warranties, either express or implied, of any nature are made hereunder with respect to the information contained herein. It is the responsiblility of the user to comply with any and all federal, state, and local law and regulations which may exist. Nothing contained herein is to be construed as a recommendation for use in violation of any applicable laws or regulations.
I

MATERIAL SAFETY DATA SHEET

Product Code: 02496

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

IDENTITY (As Used on Label and List): MAKEUP (SOLVENT) EASTERDAY SOLVENT

SECTION I - Product Identification

Manufacturer Name and Address:
EASTERDAY FLUID TECHNOLOGIES, INC.
4343 S. KANSAS AVENUE
MILWAUKEE, WI. 53207-5327
USA

Telephone Numbers:
MANUFACTURER (414)482-4488
CHEMTREC (800)424-9300

Date Entered: 08/01/1993 Revision: 08/01/1993 Printed: 11/04/2003

Chemical Family:
DOT Hazard Label:
NFPA Hazard Ratings:
Health: 1
Flammability: 3
Instability: 0
Special Hazard:

SECTION II - Hazardous Ingredients/Identity Information

	Hazardous Components (Specific Chemical Identity/Co	CAS #:	Percentage	
1.	Methyl ethyl ketone {MEK; 2-Butanone}	78-93-3	0.0 -100.0	%
2.	Ethyl alcohol {Ethanol}	64-17-5	0.0 -100.0	%
3.	Propylene glycol methyl ether acetate {(not 313)}	108-65-6	0.0 -100.0	%

68% MEK

	OSHA PEL	OSHA STEL	ACGIH TLV	ACGIH STEL
1.	200PPM	300PPM	200PPM	300PPM
2.	1000PPM		1000PPM	
3.				

SECTION III - Physical/Chemical Characteristics

Physical States: [ ] Gas [X] Liquid [ ] Solid
Boiling Point: 175.00 F
Melting Point:
Specific Gravity (Water = 1): 0.000000
Vapor Pressure (vs. Air or mm Hg):. .
Vapor Density (vs. Air = 1):. . . . .
Evaporation Rate (vs Butyl Acetate=1):
Solubility in Water:. . . . . .
Percent Volatile: . . . . . .
pH: . . . . . .
Appearance and Odor

SECTION IV - Fire and Explosion Hazard Data

Flash Pt: 21.00 F
Method Used: TAG CLOSED CUP ASTM D 56
Explosive Limits: LEL: UEL:

Product Code: 02496
Product Name: MAKEUP (SOLVENT) EASTERDAY SOLVENT

Extinguishing Media
Apply alcohol-type or all-purpose-type foams by manufacturer's recommended techniques for large fires. Use CO2 or dry chemical media for small fires.
Special Fire Fighting Procedures
Use water spray to cool fire-exposed containers and structures. Use water spray to disperse vapors: reignition is possible. Use self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards
Vapors form from this product and may travel or be moved by air other flames, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from product handling point.
Vapors may settle in low or confined areas, or travel a long distance to an ignition source and flash back explosively.
This material may product a floating fire hazard.

SECTION V - Reactivity Data

Stability: Unstable [ ] Stable [X]
Conditions To Avoid - Instability
HEAT; FIRE; IGNITION SOURCES
Incompatibility - Materials To Avoid
AVOID STRONG OXIDIZING AGENTS, ALKALINE MATERIALS, MINERAL ACIDS, AND HALOGENS.
Hazardous Decomposition Or Byproducts
BURNING CAN PRODUCE CARBON MONOXIDE AND/OR CARBON DIOXIDE.
Hazardous Polymerization: Will occur [ ] Will not occur [X]
Conditions To Avoid - Hazardous Polymerization

SECTION VI - Health Hazard Data

Route(s) of Entry: Inhalation? No Skin? No Eyes? No Ingestion? No
Health Hazards (Acute and Chronic)
EFFECTS OF ACUTE OVEREXPOSURE METHYL ETHYL KETONE AND ETHANOL :
SWALLOWING: Moderately toxic. May cause nausea, abdominal discomfort, vomiting, and diarrhea.

SKIN ABSORPTION: No evidence of adverse effects from available information.

INHALATION: Vapors are irritating to the eyes, nose and respiratory tract. Concentrations in excess of the TLV have and objectionable odor, and can cause more severe irritation, headache, dizziness, nausea, vomiting and possibly unconsciousness.

SKIN CONTACT: Brief contact causes redness. Prolonged contact with either the liquid or vapor can cause drying and cracking of the skin due to defatting action.

EYE CONTACT: Causes severe irritation, seen as marked excess redness and swelling of the conjunctiva.

EFFECTS OF REPEATED OVEREXPOSURE: No evidence of adverse effects from available information.

EFFECTS OF ACUTE OVEREXPOSURE PROPYLENE GLYCOL MONOMETHYL ACETATE:

Product Code: 02496
Product Name: MAKEUP (SOLVENT) EASTERDAY SOLVENT

INHALATION: High vapor concentrations may cause irritation.

EYES: Low hazard for usual industrial handling. However, any material that contacts the eye may be irritating or may cause mechanical iniury.

SKIN: Low hazard for usual industrial handling.

INGESTION: -Expected to be a low ingestion hazard.

Carcinogeniticy: NTP? No IARC Monographs? No OSHA No
Carcinogenicity/Other Information
Recommended Exposure Limits:
LD 50/LC 50:
Signs and Symptoms Of Exposure
Medical Conditions Generally Aggravated By Exposure
METHYL ETHYL KETONE AND ETHANOL :
This material may aggravate an existing dermatitis. Breathing of vapor and/or mist may aggravate asthma and inflammatory or fibrotic pulmonary disease.
Emergency and First Aid Procedures
METHYL ETHYL KETONE AND ETHANOL :
SWALLOWING: Do not induce vomiting.
CALL A PHYSICIAN.

SKIN: Flush with water. Wash contaminated clothing before wearing again. -
INHALATION: Remove to fresh air. Give artificial respiration if not breathing. Qualified personnel may give oxygen if breathing is difficult.
CALL A PHYSICIAN.
EYES: Immediately flush eyes thoroughly with water and continue flushing for at least 15 minutes. Seek medical attention.

NOTES TO PHYSICIAN: Methyl-ethyl-ketone is especially toxic if aspirated Stomach contents should be evacuated in a manner which avoids aspiration. There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

PROPYLENE GLYCOL MONOMETHYL ACETATE:

INHALATION: If symptomatic, remove to fresh air and get medical attention if symptoms persist. -

EYES: Any material that contacts the eye should be washed out immediately and medical attention obtained if symptoms persist.

SKIN: Wash with soap and water and get medical attention if symptoms occur.

INGESTION: CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. Induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person.

Note to Physician

Product Code: 02496
Product Name: MAKEUP (SOLVENT) EASTERDAY SOLVENT

Protective Gloves
BUTYL RUBBER.
Other Protective Clothing
CHEMICAL APRON, EYE BATH AND SAFETY SHOWER.
Work/Hygienic/Maintenance Practices

SECTION IX - Additional Comments

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND, IS TO THE BEST OF OUR KNOLEDGE AND BELIEF, ACCURATE. HOWEVER, SINCE THE CONDITIONS OF HANDLING AND USE ARE BEYOND OUR CONTROL, WE ASSUME NO LIABILITY FOR DAMAGES INCURRED BY USE OF THIS MATERIAL. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS WHICH MAY EXIST. USERS OF ANY PRODUCT SHOULD SAEISFY THEMSELVES THAT THE CONDITIONS AND METHODS OF USE ASSURE THAT THE PRODUCT IS USED SAFELY. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF ANY NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION CONTAINED HEREIN. IT IS THE RESPONSIBILITY OF THE USER TO COMPLY WITH ANY AND ALL FEDERAL, STATE, AN LOCAL LAWS AND REGULATIONS WHICH MAY EXIST. NOTHING CONTAINED HEREIN IS TO BE CONSTRUED AS A RECOMMENDATION FOR USE IN VIOLATION OF ANY APPLICABLE LAWS OR REGULATIONS.

Main Plant

Please print or type with ELITE type (12 char. or inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 9-30-96
GSA No. 0246-EPA-OT

Please refer to the *Instructions for Filling Notification* before completing this form. The information requested here is required by law (Section 3010 of the *Resource Conservation and Recovery Act*).

EPA

Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received (For Official Use Only)

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[ ] A. First Notification [X] B. Subsequent Notification *(Complete item C)*

C. Installation's EPA ID Number: OHD005419171

II. Name of Installation *(Include company and specific site name)*

CAMPBELL SOUP COMPANY

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street: 12-773 STATE ROUTE 110

Street *(Continued)*:

City or Town: NAPOLEON | State: OH | Zip Code: 43545-

County Code: | County Name: HENRY

IV. Installation Mailing Address *(See Instructions)*

Street or P.O. Box: SAME

City or Town: | State: | Zip Code: -

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name *(Last)*: SCOTT | *(First)*: JON

Job Title: ENV. ENGINEER | Phone Number *(Area Code and Number)*: 419-599-6794

VI. Installation Contact Address *(See Instructions)*

A. Contract Address Location [X] Mailing [ ] Other [ ]

B. Street or P.O. Box:

City or Town: | State: | Zip Code: -

VII. Ownership *(See Instructions)*

A. Name of Installation's Legal Owner: CAMPBELL SOUP COMPANY

Street, P.O. Box, of Route Number: 12-773 STATE ROUTE 110

City or Town: NAPOLEON | State: OH | Zip Code: 43545-

Phone Number *(Area Code and Number)*: 419-592-1010 | B. Land Type: P | C. Owner Type: P | D. Change of Owner Indicator: Yes [ ] No [X] | (Date Changed) Month Day Year:

EPA Form 8700-12 (Rev. 11-30-93) Previous edition is obsolete.

Continued on Reverse

Main Plant

Please print or type with ELITE type ( ) cters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 9-30-96
GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes; Refer to Instructions)*

A. Hazardous Waste Activity

1. Generator (See Instructions)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☒ b. 100 to 1000 kg/mo (200-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ 5. Other - specify

☐ 3. Treater, Storer, Disposer (at Installation) Note: A permit is required for this activity; see instructions.

4. Hazardous Waste Fuel
   - ☐ a. Generator Marketing to Burner
   - ☐ b. Other Marketers
   - ☐ c. Boiler and/or Industrial Furnace
     - ☐ 1. Smelter Deferral
     - ☐ 2. Small Quantity Exemption

Indicate Type of Combustion Device(s)
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace

☐ 5. Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Fuel Marketer
   - ☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device(s)
   - ☐ a. Utility Boiler
   - ☒ b. Industrial Boiler No longer
   - ☐ c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Activity(ies)
   - ☐ a. Transporter
   - ☐ b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Process
   - ☐ b. Re-refine

IX. Description of Hazardous Wastes *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))
☐	☐	☐	☐	

B. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
D001	D008	F001	F005	Hg D009	
7	8	9	10	11	12

C. Other Wastes. *(State or other wastes requiring a handler to have an I.D. number; See instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

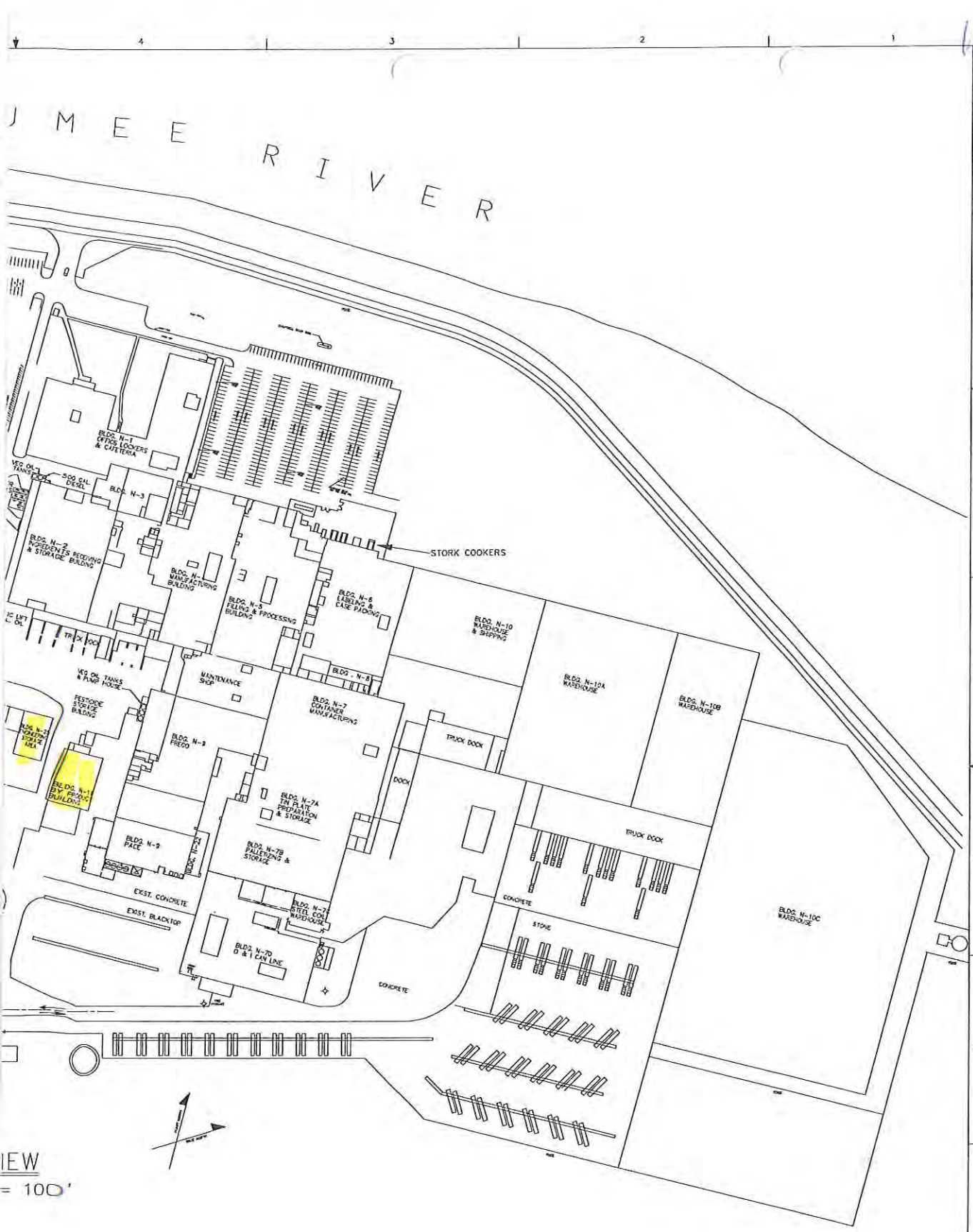
Signature	Name and Official Title *(Type or print)*	Date Signed
Raymond P. Oldach	Ray Oldach - Plant Manager	7/21/95

XI. Comments

Installation contact was changed on this revision.

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section III of the booklet for addresses.)*

11-10-03



IEW
= 100'



PLAN

SCALE: 1

REV	DESCRIPTION	ASSIGNMENT/PROJECT NO.	ISSUE DATE	BY	CHECKED	ENGR APVD	ENGR MGR APVD	DFT MGR APVD

11-10-03



PLAN VIEW
SCALE: 1" = 100'

SCALE except as noted 1" = 100' 100'-0"	PERMANENTLY MADE PART NO. ON BUILDING INDICATED BY	MATERIAL	DRAWN KDN DATE 11/06/03
TOLERANCE UNLESS OTHERWISE SPECIFIED		FINISH ✓ EXCEPT AS NOTED	CHECKED
BASIC DIM	1 PL DEC / 2 PL DEC / 3 PL DEC	NEXT ASSY.	ENGR APVD
UP TO 6	±.04 / ±.02 / ±.005	ENGINEER APVD (WHEN REQUIRED)	ENGR MGR APVD
6 TO 24	±.05 / ±.03 / ±.010	PROJECT NO./ASSIGNT NO.	DFT MGR APVD
24 UP	±.10 / ±.05 / ±.015		USDA or DEPT APPROVAL NO.
ANGULAR DIMENSIONS ±1/2°			RD 8061

CAMPBELL SOUP SUPPLY COMPANY L.L.C.
ENGINEERING NAPOLEON, OH

PROPERTY PLAN OF
NAPOLEON PLANTS, OHIO

DRAWING NO. 004P E006040 REV –

CAPTIF MISC\P\00604001 SHEET –1 OF –1

REV	DESCRIPTION	ASSIGNMENT/PROJECT NO.	REV	DESCRIPTION	ASSIGNMENT/PROJECT NO.	REV	DESCRIPTION	ASSIGNMENT/PROJECT NO.	REV	DESCRIPTION	ASSIGNMENT/PROJECT NO.
ISSUE DATE	BY	CHECKED	ENGR APVD	ENGR MGR APVD	DFT MGR APVD	ISSUE DATE	BY	CHECKED	ENGR APVD	ENGR MGR APVD	DFT MGR APVD

Henry County
Campbell's Soup General

GeoTrans, Inc.
A TETRA TECH COMPANY
710 Avis Drive
Ann Arbor, MI 48108
www.geotransinc.com
734-213-2204 FAX 734-213-5008

November 11, 2002

RECEIVED
NOV 12 2002
OHIO E.P.A.
N.W.D.O.

Thomas Poffenbarger, P.E.
Division of Surface Water
Ohio Environmental Protection Agency
347 North Dunbridge Road
Bowling Green, OH 43402

Re: Request for Permission to Discharge
Campbell Soup WWTP, Napoleon Facility

Dear Mr. Poffenbarger:

On August 1, 2002, the Ohio Environmental Protection Agency (Ohio EPA) approved, with modifications, the *RCRA Site Closure Plan, Former Holding Pit Unit,* (Closure Plan), dated May 24, 2002, for the Campbell Soup Supply Company in Napoleon, Ohio. During implementation of the Closure Plan, field generated wastewater will need to be managed. We communicated with you about this issue in an 'e-mail' correspondence dated July 16, 2002, and a follow-up phone call on November 4, 2002. The purpose of this letter is to request that the Ohio EPA grant Campbell Soup "permission to discharge" the field generated wastewater to the Campbell Soup Wastewater Treatment Plant (WWTP).

BACKGROUND

Prior to 1981, spent coating materials and solvents from the Plant's former can manufacturing operation were stored in 55-gallon drums and eventually used as boiler fuel supplement. Over time, solids accumulated in the drums, complicating handling of the spent solvents and drums. To manage the solids, a temporary holding pit was constructed to receive and dry the solids prior to off-site disposal. The holding pit was active from 1981 until it was demolished in 1983. Subsequent subsurface investigations have confirmed the presence of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) in the soils and perched groundwater surrounding the former holding pit.

SOURCE AND ESTIMATED VOLUME OF WASTE WATER

The primary source of the field generated wastewater is "perched" water trapped within the permeable sediments under the former holding pit. The perched water is impacted with volatile and semi-volatile organic compounds (VOCs, SVOCs). Concentrations of contaminants observed in the perched water are provided in Table 1. Review of lithologic data presented in the Closure Plan indicates that the perched water is encountered at an approximate depth of 6.6 feet below surface grade and that the maximum thickness of the saturated unit is approximately 11.5 feet. The perched water is contained within permeable sediments that are above natural grade, and are

not in direct contact with groundwater. Therefore, the volume of water that will be generated is finite, and will only increase with the addition of precipitation or decontamination water.

Because the excavation will be completed in tiers that decrease in size with depth, soil volumes were estimated for each tier (Appendix A). The volume of each tier was added together for a total saturated soil volume of 53,264 ft^3 (1,973 yds^3). The volume of saturated soil was multiplied by the average specific yield (effective porosity) for a medium sand, 26% (Fetter, 1988) resulting in approximately 13,849 ft^3 or 103,590 gallons of potential perched water in the excavation area. This is a very conservative estimate that assumes the entire mound area contains perched water and all of the water will be released from the soil pores. During field investigations we determined approximately ¼ of the mound contained perched water, which would result in approximately 26,000 gallons of perched water that would need to be collected during excavation activities.

Wastewater will also be generated as equipment is decontaminated. Although the excavation will be covered with visquene during work stoppages, some contaminated soil may come in contact with rainwater during field activities. The maximum volume of wastewater generated from rinseate and precipitation is not expected to exceed 30,000-gallons.

CHEMICALS OF CONCERN

The materials stored in the former holding pit generally were associated with wastes recovered from the enamel coating process for the inside of food containers. Chemicals that were actually detected in the soils under the former holding pit include the following:

- chloromethane (methyl chloride)
- bromomethane
- methylene chloride
- chloroform
- benzene*
- trichloroethene
- toluene*
- ethylbenzene*
- total xylenes*
- styrene*
- isopropylbenzene (cumene)*
- 1,2,3-trichloropropane
- n-propylbenzene*
- 1,3,5-trimethylbenzene
- tert-butylbenzene*
- 1,2,4-trimethylbenzene*
- sec-butylbenzene*
- p-isopropyltoluene*
- n-butylbenzene*
- 1,2,4-trichlorobenzene*
- naphthalene*
- 2-methylnaphthalene*
- methyl 4,-2-propanone (MIBK)*
- 2-Butanone (MEK)
- acenaphthene
- fluorene
- phenanthrene
- anthracene
- fluoranthene
- pyrene
- benzo(a)anthracene
- chrysene
- benzo(b)fluoranthene
- benzo(k)fluoranthene
- benzo(a)pyrene
- indeno(1,2,3-cd)pyrene
- benzo(g,h,i)perylene
- 1,4-Dichlorobenzene

Those chemicals marked with an "*" are chemicals that were detected in the perched water within the mound. The maximum concentrations observed in the perched water are shown in Table 1.

These are the maximum concentrations of organics expected in all of the field generated wastewater, as the perched water will have the highest levels of organics due to its continuous contact with the contaminated soils.

Available outside mixing zone maximum (OMZM) values obtained from the Ohio EPA Water Quality Standards for the Lake Erie basin are shown for each chemical of concern in Table 1.

WASTEWATER MANAGEMENT PLAN

Water removed from the excavation and wastewater generated during decontamination activities will be stored onsite in a 20,000-gallon frac tank. When the tank is near full, the water will be transported via a vacuum truck to a manhole located before the head of the WWTP. The Ohio EPA will be notified one business day prior to the initial discharge to the WWTP. The field generated wastewater will be discharged prior to the head of the WWTP and will be subject to all treatment processes. The WWTP treatment process, as described in Appendix B, is designed to treat organics, treats over 8 million gallons per day, and has a total detention time of approximately 3.5 days. Since the wastewater will never leave the Campbell Soup property, waste manifests will not be required.

CONFIRMATION SAMPLING PROCEDURES

The quality of the WWTP influent will not be significantly affected by the additional discharge of the field generated wastewater. The concentrations of the chemicals of concern at the head of the WWTP are expected to be orders of magnitude lower than the OMZM limitations, as shown in Table 1. However, to ensure the WWTP influent does not exceed the OMZM values during the wastewater discharge event, confirmation samples will be taken from the on-site temporary storage frac tank prior to discharge to the WWTP. The samples will be collected in clean laboratory supplied containers and preserved according to laboratory procedures. The samples will be transported on ice to the laboratory where they will be analyzed for the VOCs and SVOCs indicated on Table 1 (the field generated wastewater will be analyzed against those compounds with OMZM values shown on Table 1). Discharge to the WWTP will only occur if the confirmation samples are below the 'required concentration of field generated wastewater for influent to equal OMZM WQS' as shown in Table 1.

Discharge limits were not available for all compounds detected in the perched water or soil under the former holding pit. It is expected that compliance with the established discharge limits will be sufficiently protective to ensure that the quality of the WWTP effluent will not be adversely affected. A comparison of the analytical concentrations of the discharge water and the proposed limitations should be considered a good indicator of the overall quality of the discharge water.

FOLLOW-UP REPORT

A follow-up report will be submitted to the Ohio EPA within 30 days of the final discharge. The report will contain the dates the discharges occurred, the volumes and duration of all discharges and a summary of all analytical results.

This letter is intended to provide all the information necessary to obtain "Permission to Discharge" to the Campbell Soup WWTP. If you have any further questions, please do not hesitate to call me at 734-213-5042.

Thank you,

Craig Savage, CPG
Associate Hydrogeologist

Tesha Yielding
Project Engineer

Attachments

Copy: James Moseley, Ohio EPA NWDO
Dr. Aly, Campbell Soup
Mike Maringer, Campbell Soup

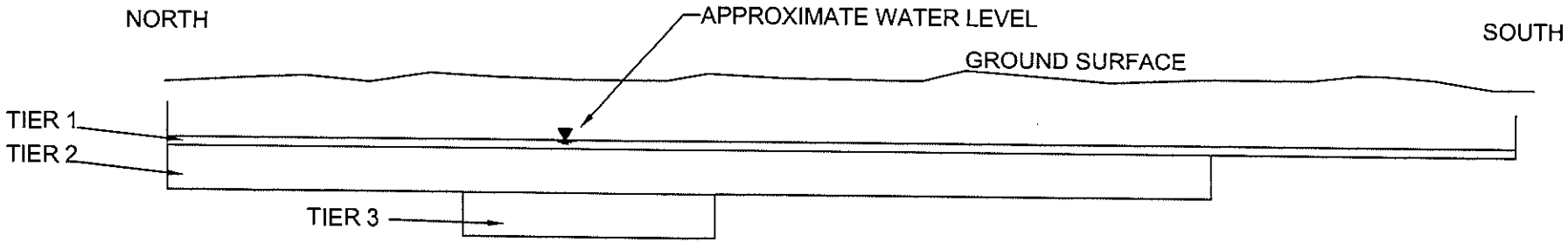
P:\Projects\Campbell Soup\permission to discharge.doc

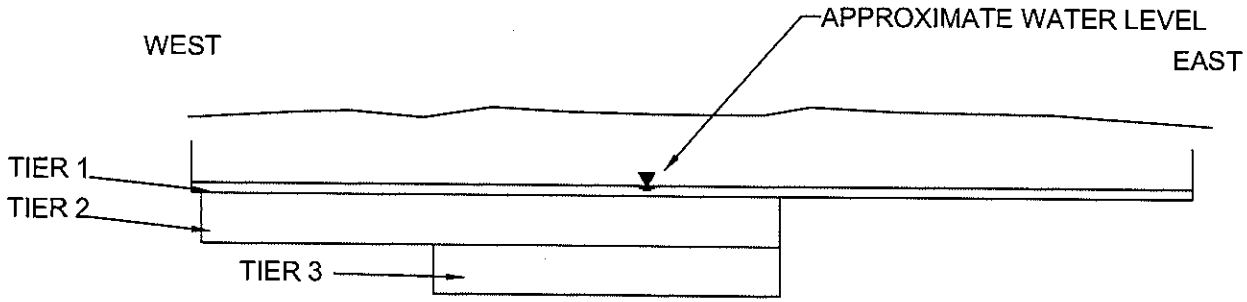
Table 1
Campbell Soup Napoleon WWTP Plant
Required Concentration of Field Generated Wastewater for Influent to Equal
Outside Mixing Zone Water Quality Standards

Chemicals of Concern	Maximum Detectable Concentration in Perched Water (ug/L)	Outside Mixing Zone Maximum - OMZM (ug/L)	Estimated WWTP Influent* (ug/L)	Requirled Concentration of Field Generated Wastewater for Influent to Equal OMZM WQS* (ug/L)
1,2,4-Trimethylbenzene	**450**	140	1.122	56,140
1,3,5-Trimethlybenzene	58	230	0.145	92,230
2-Methylnaphthalene	13	NA	0.032	NA
Benzene	9	700	0.022	280,700
Ethylbenzene	170	550	0.424	220,550
Isopropylbenzene	17	43	0.042	17,243
MIBK	65	NA	0.162	NA
Naphthalene	8	170	0.019	68,170
n-Butylbenzene	43	NA	0.107	NA
n-Propylbenzene	33	NA	0.082	NA
p-Isopropyltoluene	21	NA	0.052	NA
sec-Butylbenzene	23	NA	0.057	NA
Styrene	1	290	0.002	116,290
tert-Butylbenzene	4	NA	0.009	NA
Toluene	1	560	0.002	224,560
Xylenes	**271**	240	0.676	96,240
Chloromethane	ND	NA	0	NA
Bromomethane	ND	38	0	15,238
Methylene Chloride	ND	11,000	0	4,411,000
Chloroform	ND	1,300	0	521,300
Trichloroethylene	ND	2,000	0	802,000
1,2,3-Trichloropropane	ND	NA	0	NA
1,3,5-Trimethylbenzene	ND	230	0	92,230
2-Butanone (MEK)	ND	200,000	0	80,200,000
Acenaphthene	ND	19	0	7,619
Fluorene	ND	110	0	44,110
Phenanthrene	ND	31	0	12,431
Anthracene	ND	0.18	0	72
Fluoranthene	ND	3.7	0	1,484
Pyrene	ND	42	0	16,842
Benzo(a)anthracene	ND	42	0	16,842
Chrysene	ND	42	0	16,842
Benzo(b)fluoranthene	ND	23	0	9,223
Benzo(k)fluoranthene	ND	NA	0	NA
Benzo(a)pyrene	ND	0.5	0	217
Indeno(1,2,3-cd)pyrene	ND	NA	0	NA
Benzo(g,h,i)perylene	ND	NA	0	NA
1,4-Dichlorobenzene	ND	57	0	22,857

Notes:
Bolded Values exceed OMZM WQS Concentrations
NA = Not Available, ND = Non-Detect
* Mass Balance Calculation Shown in Appendix C

APPENDIX A
Excavation Schematic







SCALE: 1" = 20'

GeoTrans, Inc.
A TETRA TECH COMPANY

CHECKED:

DATE:

PERMISSION TO DISCHARGE
CAMPBELL SOUP SUPPLY COMPANY
NAPOLEON, OHIO

EXCAVATION SCHEMATIC

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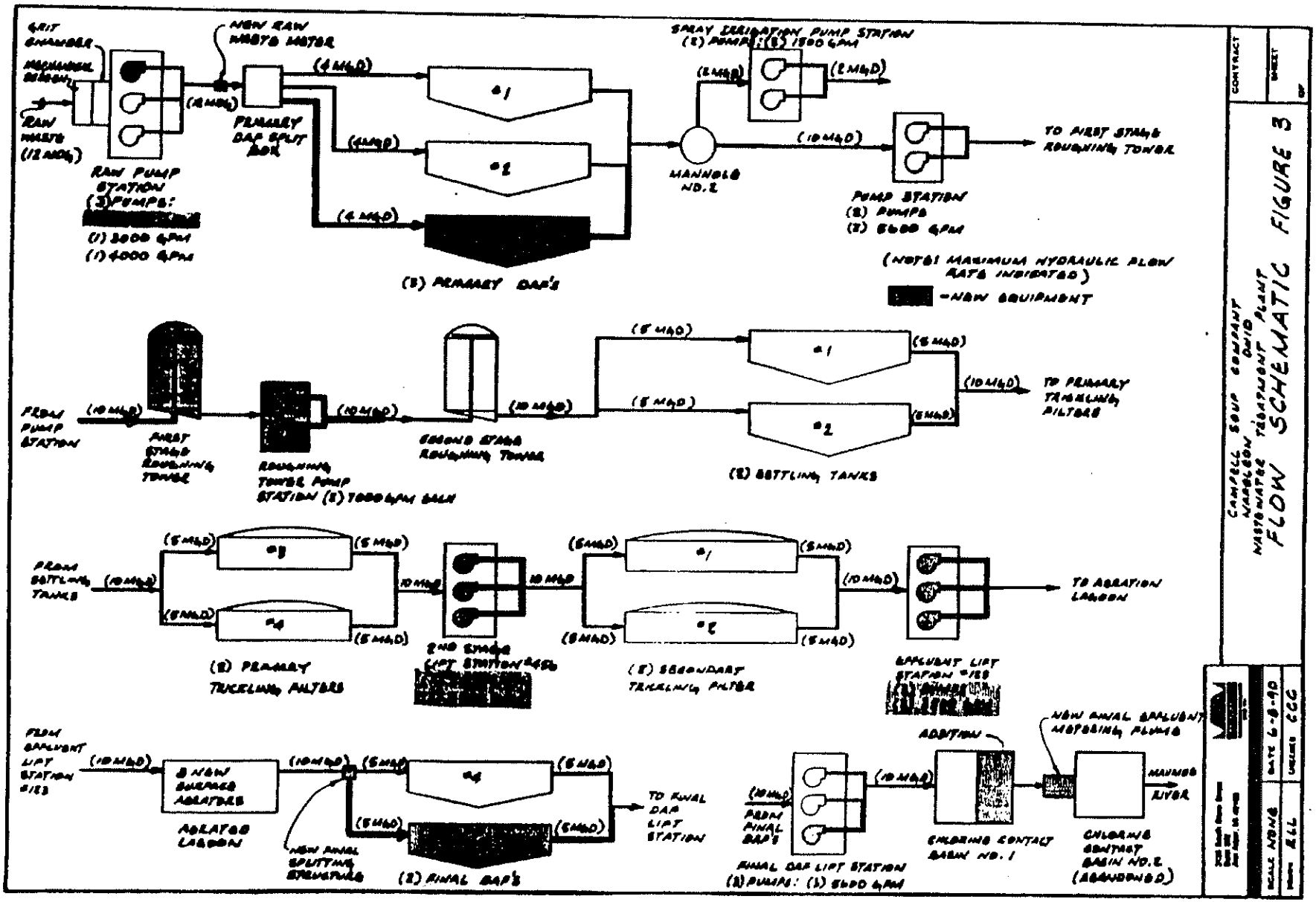
APPENDIX B

WWTP Process Flow Diagram


GRIT CHAMBER
MECHANICAL SCREEN
RAW WASTE (12 MGD)
RAW PUMP STATION (3) PUMPS:
(1) 3000 GPM
(1) 4000 GPM
NEW RAW WASTE METER
PRIMARY DAF SPLIT BOX
(4 MGD)
(3) PRIMARY DAF'S
SPRAY IRRIGATION PUMP STATION (2) PUMPS: (2) 1500 GPM
(2 MGD)
MANHOLE NO. 2
(10 MGD)
PUMP STATION (2) PUMPS (2) 5600 GPM
TO FIRST STAGE ROUGHING TOWER
(NOTE: MAXIMUM HYDRAULIC FLOW RATE INDICATED)
-NEW EQUIPMENT
FROM PUMP STATION
FIRST STAGE ROUGHING TOWER
ROUGHING TOWER PUMP STATION (2) 7000 GPM EACH
SECOND STAGE ROUGHING TOWER
(5 MGD)
(2) SETTLING TANKS
TO PRIMARY TRICKLING FILTERS
FROM SETTLING TANKS
(2) PRIMARY TRICKLING FILTERS
2ND STAGE LIFT STATION #456
(2) SECONDARY TRICKLING FILTER
EFFLUENT LIFT STATION #123
TO AERATION LAGOON
FROM EFFLUENT LIFT STATION #123
8 NEW SURFACE AERATORS
AERATED LAGOON
NEW FINAL SPLITTING STRUCTURE
(2) FINAL DAF'S
TO FINAL DAF LIFT STATION
FROM FINAL DAF'S
FINAL DAF LIFT STATION (3) PUMPS: (3) 5600 GPM
ADDITION
CHLORINE CONTACT BASIN NO. 1
NEW FINAL EFFLUENT METERING FLUME
CHLORINE CONTACT BASIN NO. 2 (ABANDONED)
MAUMEE RIVER
CAMPBELL SOUP COMPANY
NAPOLEON OHIO
WASTEWATER TREATMENT PLANT
FLOW SCHEMATIC FIGURE 3
CONTRACT
SHEET
OF
SCALE NONE
DATE 6-8-90
DRAWN RLL
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APPENDIX C

MASS BALANCE CALCULATIONS

This appendix presents the mass balance calculation logic that was followed to perform the calculations shown in Table 1.

The following assumptions were made:

- The flow of the Campbell Soup WWTP is 8,000,0000 gallons per day.
- The flow of the field generated wastewater is 20,000 gallons per day.
- The concentrations of the COCs from the Campbell Soup collection system = 0 ppb.

Estimated WWTP Influent (ug/L)

$c_1 q_1 + c_2 q_2 = QC$

q_1 = flow of field generated wastewater = 20,000 gallons/day
c_1 = concentration of field generated wastewater for each COC
q_2 = flow of Campbell WWTP = 8 MGD
c_2 = concentrations of COCs in Campbell Soup wastewater = 0 ppb
Q = total flow during field generated discharge event = 8,020,000 gallons
C = ? = Expected WWTP influent during field generated wastewater discharge event.

$$C = \frac{c_1 q_1}{Q} = \frac{c_1 * 20{,}0000}{8{,}020{,}000}$$

Required Concentration (c_1) of Field Generated Wastewater for influent to equal OMZM

$c_1 q_1 + c_2 q_2 = QC$

q_1 = flow of field generated wastewater = 20,000 gallons/day
c_1 = ? = concentration of field generated wastewater for each COC
q_2 = flow of Campbell WWTP = 8 MGD
c_2 = concentrations of COCs in Campbell Soup wastewater = 0 ppb
Q = total flow during field generated discharge event = 8,020,000 gallons
C = WWTP influent during field generated wastewater discharge event = OMZM values.

$$c_1 = \frac{C*Q}{q_1} = \frac{C*8{,}020{,}000}{20{,}000}$$

Henry County
Campbell's Soup General

Campbell Soup Company

LEGAL DEPARTMENT
CAMPBELL PLACE
CAMDEN, NEW JERSEY 08103-1799

MARK MIGLIACCIO
ASSOCIATE CORPORATE COUNSEL

TELEPHONE (856) 342-6131
FAX (856) 342-3936

November 1, 2002

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OHIO E.P.A.
N.W.D.O.

BY OVERNIGT MAIL

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager/Mr. James Moseley
347 North Dunbridge Road
Bowling Green, OH 43402

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
122 S. Front Street
Columbus, Ohio 43215-1099

Re: Campbell Soup Supply Company, L.L.C. and Campbell Soup Company
Financial Assurance Documents

Gentleman:

At the request of Messrs. Harry Sarvis and Todd Anderson, I am providing you this follow-up to the letters of July 18, 2002 and August 1, 2002 regarding the financial assurance documents submitted by Campbell Soup Company ("Campbell") pursuant to the Director's Final Findings and Order, dated October 18, 2000 (as amended August 2001) (the "Order"). The Order relates to Campbell's property located at 12773 State Route 110, Napoleon, Ohio (the "Property"). Messrs. Sarvis and Anderson requested I provide you with the following information:

- The Property's EPA identification number is OHD 005 419 171.
- The lending institution for the closure letter of credit is JP MorganChase Bank.
- The amount of the closure letter of credit is five hundred eighty six thousand five hundred and twenty three dollars ($586,523).

- The lending institution for the third-party liability letter of credit is JP MorganChase Bank.
- The amount of the third party liability letter of credit is one million dollars ($1,000,000) per occurrence with an annual aggregate amount of two million dollars ($2,000,000).

If you require any additional information, please do not hesitate to contact me.

Sincerely,

Mark Migliaccio

cc: Todd Anderson, Esq. (via facsimile)
Mr. Harry Sarvis (via facsimile)
Dr. Osman Aly
Faith R. Greenfield, Esq.
Timothy N. Skidmore
Robert Knecht

Henry County
Campbell's Soup Geneva

GeoTrans, Inc.
A TETRA TECH COMPANY
710 Avis Drive
Ann Arbor, MI 48108
www.geotransinc.com
734-213-2204 FAX 734-213-5008

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OCT 28 2002
OHIO E.P.A.
N.W.D.O.

October 23, 2002

Mr. James Moseley
Ohio EPA - NWDO
347 North Dunbrigde Drive
Bowling Green, OH 43402

RE: Campbell Soup Company, Napoleon Site
September 2002 Soil Sample Results

Dear Mr. Moseley,

On October 2, 2002, a geologist with GeoTrans, Inc. returned to the Campbell Soup Company's Napoleon, Ohio, plant to re-collect soil samples to complete delineation around the "former holding pit" site. These samples were necessary to replace samples collected during the week of August 26, 2002, which were not analyzed within allowable holding times by the analytical laboratory. These soil samples were collected in accordance with the approved Modified Closure Plan, and following notification to and verbal approval from the Ohio EPA.

The samples were collected from soil borings completed 1-2 feet away but at the same depth intervals as the borings completed on August 26 and 27, 2002. Soil cores were retrieved within a four-foot long clear acetate liner using a GeoProbe™ sampling rig. Soil samples were extracted from the target interval by cutting the acetate liner and inserting an Encore™ sampler into the soil core.

Because groundwater samples were collected from MW-1, MW-2 and MW-3 from the 15 to 20 foot depth interval, additional soil samples were not collected from the deep interval during the re-sampling at these locations. Therefore, a total of 12 samples were submitted for laboratory analysis instead of the 15 samples collected previously. 10 soil samples were collected from the 4- to 5-foot depth interval and two were collected from the 19.5- to 20-foot depth interval (at locations where wells were not installed previously). Samples were collected in triplicate and submitted to BEC Laboratories, Inc. (BEC) in Toledo, Ohio, for VOC analysis on September 2, 2002.

Laboratory analytical results are presented in the attached Table 1 and the complete laboratory report is also attached. The low-level method 8270b practical quantification limit (PQL) for each parameter is presented. Sample results detected above the PQL but

below the sample quantification limit appear in parentheses. A summary of the analytical results is provided below:

- All groundwater samples and soil samples collected from the 19.5- to 20-foot depth interval showed concentrations below the all detection limits for all compounds analyzed.

- M- & p-xylenes, carbon disulfide, and 1,1-dichloropropene were identified below the quantification limit for the individual samples but above the low-level method PQL. An estimate of these concentrations (in parentheses) is included in Table 1 and in the laboratory report.

- Toluene was detected above the low-level method PQL and the sample quantification limit in samples collected at five locations across the site: PB-02-52 (26.6 parts per billion (ppb)), PB-02-54 (78.9 ppb), PB-02-57 (41.4 ppb), PB-02-58 (82.6 ppb), and MW-1 (62.5 ppb).

There is no reason to expect that the compounds found in these samples are associated with the former holding pit area. These samples were collected from an area some distance from the former holding pit, and represent native soils undisturbed by the re-grading activities in the mounded area of the holding pit. Visual observations of the soil columns during fieldwork activities indicated these soils were native. No carbon disulfide was found in any of the fifty samples analyzed during the previous investigations within the former holding pit area. Also, of the samples collected during the investigations within the former holding pit area, only one sample showed detectable concentrations of 1,1-dichloropropene, compared to the eight samples from the native areas with detectable concentrations of this contaminant. The fact that toluene was the only compound detected above quantifiable limits is difficult to explain, as this compound, while present, was by no means the most prevalent compound in the former holding pit study area.

In addition, the compounds present in these samples were not detected in other nearby soil samples, collected during the previous investigation. Toluene, 1,1-dichloropropene, carbon disulfide, and xylenes were not detected in any samples collected from outermost borings PB-01-36, PB-01-39, PB-01-38, PB-01-47, PB-01-48, PB-01-49, PB-01 44, and PB-01-50.

We can think of no logical reason for the occurrence of such a suite of compounds in the recent samples, especially considering the relative absence of other compounds more prevalent in the holding pit area soils. An alternate source for these compounds or some unexplained cross contamination is the only reasonable explanation. Therefore, we request that the soil investigation be considered complete, and that the implementation of the closure plan be initiated this November, as planned.

If you have any questions regarding these matters please do not hesitate to call me at 734.213.5042.

Sincerely,

Michael Kosmerl for

Craig A. Savage
Associate Hydrogeologist
Project Manager

Cc: Dr. Osman Aly, Campbell Soup

Table 1
October 2, 2002
Soil Analytical Results
Campbell Soup
Napoleon, Ohio

Parameter:	Units	Practical Quantification Limit (PQL)	PB-02-52 (4-5')	PB-02-53 (4-5')	PB-02-54 (4-5')	PB-02-54 (19.5-20')	PB-02-55 (4-5')	PB-02-56 (4-5')	PB-02-56 (19.5-20')	PB-02-57 (4-5')	PB-02-58 (4-5')
Acrolein	ug/Kg	50	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylnitrile	ug/Kg	50	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	ug/Kg	50	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ug/Kg	50	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Buylbenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	ug/Kg	5	ND	ND	ND	ND	ND	(17.6)	ND	ND	ND
Carbon tetrachloride	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ug/Kg	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	ug/Kg	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromomethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Drchloro-2-butene	ug/Kg	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	ug/Kg	5	(13.0)	ND	(16.2)	ND	(17.5)	(18)	ND	(14.8)	(17.5)
1,2-Dichloropropane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Acetate	ug/Kg	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Ether	ug/Kg	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl methacrylate	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	ug/Kg	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl iodide	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methyl Naphthalene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	ug/Kg	50	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	ug/Kg	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/Kg	5	26.6	ND	78.9	ND	ND	ND	ND	41.4	82.6
1,2,3-Trichlorobenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,4-Trimethylbenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	ug/Kg	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
m & p Xylenes	ug/Kg	5	(8.4)	ND	(9.9)	ND	ND	ND	ND	ND	(19.2)
o-Xylenes	ug/Kg	5	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes: ND indicates the analyte was not detected. See the laboratory analytical report for individual quantification limits.
A value in parenthesis indicates the analyte was detectable but below the limit of quantification. The value is an estimate only.

Table 1
October 2, 2002
Soil Analytical Results
Campbell Soup
Napoleon, Ohio

Parameter:	Units	Practical Quantification Limit (PQL)	MW-1 (4-5')	MW-2 (4-5')	MW-3 (4-5')
Acrolein	ug/Kg	50	ND	ND	ND
Acrylnitrile	ug/Kg	50	ND	ND	ND
Acetone	ug/Kg	50	ND	ND	ND
Benzene	ug/Kg	5	ND	ND	ND
Bromobenzene	ug/Kg	5	ND	ND	ND
Bromochloromethane	ug/Kg	5	ND	ND	ND
Bromodichloromethane	ug/Kg	5	ND	ND	ND
Bromoform	ug/Kg	5	ND	ND	ND
Bromomethane	ug/Kg	5	ND	ND	ND
2-Butanone	ug/Kg	50	ND	ND	ND
sec-Buylbenzene	ug/Kg	5	ND	ND	ND
n-Butylbenzene	ug/Kg	5	ND	ND	ND
tert-Butylbenzene	ug/Kg	5	ND	ND	ND
Carbon disulfide	ug/Kg	5	ND	ND	ND
Carbon tetrachloride	ug/Kg	5	ND	ND	ND
Chlorobenzene	ug/Kg	5	ND	ND	ND
Chlorodibromomethane	ug/Kg	5	ND	ND	ND
Chloroethane	ug/Kg	10	ND	ND	ND
2-Chloroethyl Vinyl Ether	ug/Kg	10	ND	ND	ND
Chloroform	ug/Kg	5	ND	ND	ND
Chloromethane	ug/Kg	5	ND	ND	ND
2-Chlorotoluene	ug/Kg	5	ND	ND	ND
1,2-Dibromo-3-chloropropane	ug/Kg	5	ND	ND	ND
1,2-Dibromomethane	ug/Kg	5	ND	ND	ND
Dibromomethane	ug/Kg	5	ND	ND	ND
1,2-Dichlorobenzene	ug/Kg	5	ND	ND	ND
1,3-Dichlorobenzene	ug/Kg	5	ND	ND	ND
1,4-Dichlorobenzene	ug/Kg	5	ND	ND	ND
1,4-Drchloro-2-butene	ug/Kg	10	ND	ND	ND
Dichlorodifluoromethane	ug/Kg	5	ND	ND	ND
1,1-Dichloroethane	ug/Kg	5	ND	ND	ND
1,2-Dichloroethane	ug/Kg	5	ND	ND	ND
1,1-Dichloroethene	ug/Kg	5	ND	ND	ND
cis-1,2-Dichloroethene	ug/Kg	5	ND	ND	ND
trans-1,2-Dichloroethene	ug/Kg	5	ND	ND	ND
1,1-Dichloropropene	ug/Kg	5	16.2)	ND	(15.5)
1,2-Dichloropropane	ug/Kg	5	ND	ND	ND
1,3-Dichloropropane	ug/Kg	5	ND	ND	ND
2,2-Dichloropropane	ug/Kg	5	ND	ND	ND
cis-1,3-Dichloropropene	ug/Kg	5	ND	ND	ND
trans-1,3-Dichloropropene	ug/Kg	5	ND	ND	ND
Ethyl Acetate	ug/Kg	10	ND	ND	ND
Ethyl Benzene	ug/Kg	5	ND	ND	ND
Ethyl Ether	ug/Kg	10	ND	ND	ND
Ethyl methacrylate	ug/Kg	5	ND	ND	ND
Hexachlorobutadiene	ug/Kg	5	ND	ND	ND
Hexachloroethane	ug/Kg	5	ND	ND	ND
2-Hexanone	ug/Kg	10	ND	ND	ND
Isopropylbenzene	ug/Kg	5	ND	ND	ND
p-Isopropyltoluene	ug/Kg	5	ND	ND	ND
Methylene Chloride	ug/Kg	5	ND	ND	ND
Methyl iodide	ug/Kg	5	ND	ND	ND
2-Methyl Naphthalene	ug/Kg	5	ND	ND	ND
4-Methyl-2-pentanone	ug/Kg	50	ND	ND	ND
MTBE	ug/Kg	5	ND	ND	ND
Naphthalene	ug/Kg	5	ND	ND	ND
n-Propylbenzene	ug/Kg	5	ND	ND	ND
Styrene	ug/Kg	5	ND	ND	ND
1,1,1,2-Tetrachloroethane	ug/Kg	5	ND	ND	ND
1,1,2,2-Tetrachloroethane	ug/Kg	5	ND	ND	ND
Tetrachloroethene	ug/Kg	5	ND	ND	ND
Tetrahydrofuran	ug/Kg	10	ND	ND	ND
Toluene	ug/Kg	5	62.5	ND	ND
1,2,3-Trichlorobenzene	ug/Kg	5	ND	ND	ND
1,2,4-Trichlorobenzene	ug/Kg	5	ND	ND	ND
1,1,1-Trichloroethane	ug/Kg	5	ND	ND	ND
1,1,2-Trichloroethane	ug/Kg	5	ND	ND	ND
Trichloroethene	ug/Kg	5	ND	ND	ND
Trichlorofluoromethane	ug/Kg	5	ND	ND	ND
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/Kg	5	ND	ND	ND
1,2,3-Trichloropropane	ug/Kg	5	ND	ND	ND
1,3,4-Trimethylbenzene	ug/Kg	5	ND	ND	ND
1,3,5-Trimethylbenzene	ug/Kg	5	ND	ND	ND
Vinyl Acetate	ug/Kg	10	ND	ND	ND
Vinyl chloride	ug/Kg	5	ND	ND	ND
m & p Xylenes	ug/Kg	5	ND	ND	ND
o-Xylenes	ug/Kg	5	ND	ND	ND

Notes: ND indicates the analyte was
A value in parenthesis indicat

N

LEGEND

PB-01-35 — PROBE BORING 2001

PB-02-57 — PROBE BORING 2002

MW-1 — MONITORING WELL



GeoTrans, Inc. A TETRA TECH COMPANY

CHECKED: | DATE:

50 25 0 50 100

SCALE: 1"=50'

SHALLOW GROUNDWATER INVESTIGATION
CAMPBELL SOUP SUPPLY COMPANY
NAPOLEON, OHIO

PROBE BORING AND MONITORING WELL LOCATIONS

FIGURE 1

..\CAMPBELL SOUP\CADD\FIGURE1SITESURVEY.DWG 09/24/02 MSK 1

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lab no. 02T04546
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: MW-3 (4-5') - Grab - Sampled on 10/02/02 @ 9:00

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 190
Acrylonitrile	50	< 190
Acetone	50	< 190
Benzene	5	< 19
Bromobenzene	5	< 19
Bromochloromethane	5	< 19
Bromodichloromethane	5	< 19
Bromoform	5	< 19
Bromomethane	5	< 19
2-Butanone (MEK)	50	< 190
sec-Butylbenzene	5	< 19
n-Butylbenzene	5	< 19
tert-Butylbenzene	5	< 19
Carbon disulfide	5	< 19
Carbon tetrachloride	5	< 19
Chlorobenzene	5	< 19
Chlorodibromomethane	5	< 19
Chloroethane	10	< 38
2-Chloroethyl Vinyl Ether	10	< 38
Chloroform	5	< 19
Chloromethane	5	< 19
2-Chlorotoluene	5	< 19
1,2-Dibromo-3-chloropropane	5	< 19
1,2-Dibromoethane (EDB)	5	< 19
Dibromomethane	5	< 19
1,2-Dichlorobenzene	5	< 19
1,3-Dichlorobenzene	5	< 19
1,4-Dichlorobenzene	5	< 19
1,4-Dichloro-2-butene	10	< 38
Dichlorodifluoromethane	5	< 19

date completed:	tech:	approved by:
10/09/02	JM	J. F. Blair

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p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: MW-3 (4-5') - Grab - Sampled on 10/02/02 @ 9:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 19
1,2-Dichloroethane	5	< 19
1,1-Dichloroethene	5	< 19
cis-1,2-Dichloroethene	5	< 19
trans-1,2-Dichloroethene	5	< 19
1,1-Dichloropropene	5	< 19 (15.5)
1,2-Dichloropropane	5	< 19
1,3-Dichloropropane	5	< 19
2,2-Dichloropropane	5	< 19
cis-1,3-Dichloropropene	5	< 19
trans-1,3-Dichloropropene	5	< 19
Ethyl Acetate	10	< 38
Ethyl Benzene	5	< 19
Ethyl Ether	10	< 38
Ethyl methacrylate	5	< 19
Hexachlorobutadiene	5	< 19
Hexachloroethane	5	< 19
2-Hexanone	10	< 38
Isopropylbenzene	5	< 19
p-Isopropyltoluene	5	< 19
Methylene Chloride	5	< 19
Methyl iodide	5	< 19
* 2-Methyl Naphthalene	5	< 19
4-Methyl-2-pentanone (MIBK)	50	< 190
MTBE	5	< 19
Naphthalene	5	< 19
n-Propylbenzene	5	< 19
Styrene	5	< 19
1,1,1,2-Tetrachloroethane	5	< 19
1,1,2,2-Tetrachloroethane	5	< 19
Tetrachloroethene	5	< 19

date completed:	tech:	approved by:
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lab no. 02T04546
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: MW-3 (4-5') - Grab - Sampled on 10/02/02 @ 9:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 38
Toluene	5	< 19
1,2,3-Trichlorobenzene	5	< 19
1,2,4-Trichlorobenzene	5	< 19
1,1,1-Trichloroethane	5	< 19
1,1,2-Trichloroethane	5	< 19
Trichloroethene	5	< 19
Trichlorofluoromethane	5	< 19
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 19
1,2,3-Trichloropropane	5	< 19
1,3,4-Trimethylbenzene	5	< 19
1,3,5-Trimethylbenzene	5	< 19
Vinyl acetate	10	< 38
Vinyl chloride	5	< 19
m & p-Xylenes	5	< 19
o-Xylenes	5	< 19

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	80.9	70-121
Toluene-d8	78.7 **	81-117
4-Bromofluorobenzene	79.3	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

3) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantificaton. The value is an estimate only.

**4) Low recovery due to matrix effect.

date completed:	tech:	approved by:
10/09/02	JM	J. F. Blair

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lab no. 02T04547
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-53 (4-5') - Grab - Sampled on 10/02/02 @ 9:20

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 175
Acrylonitrile	50	< 175
Acetone	50	< 175
Benzene	5	< 17.5
Bromobenzene	5	< 17.5
Bromochloromethane	5	< 17.5
Bromodichloromethane	5	< 17.5
Bromoform	5	< 17.5
Bromomethane	5	< 17.5
2-Butanone (MEK)	50	< 175
sec-Butylbenzene	5	< 17.5
n-Butylbenzene	5	< 17.5
tert-Butylbenzene	5	< 17.5
Carbon disulfide	5	< 17.5
Carbon tetrachloride	5	< 17.5
Chlorobenzene	5	< 17.5
Chlorodibromomethane	5	< 17.5
Chloroethane	10	< 35
2-Chloroethyl Vinyl Ether	10	< 35
Chloroform	5	< 17.5
Chloromethane	5	< 17.5
2-Chlorotoluene	5	< 17.5
1,2-Dibromo-3-chloropropane	5	< 17.5
1,2-Dibromoethane (EDB)	5	< 17.5
Dibromomethane	5	< 17.5
1,2-Dichlorobenzene	5	< 17.5
1,3-Dichlorobenzene	5	< 17.5
1,4-Dichlorobenzene	5	< 17.5
1,4-Dichloro-2-butene	10	< 35
Dichlorodifluoromethane	5	< 17.5

date completed:	tech:	approved by:
10/08/02	JM	J. F. Blair

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lab no. 02T04547
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-53 (4-5') - Grab - Sampled on 10/02/02 @ 9:20

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 17.5
1,2-Dichloroethane	5	< 17.5
1,1-Dichloroethene	5	< 17.5
cis-1,2-Dichloroethene	5	< 17.5
trans-1,2-Dichloroethene	5	< 17.5
1,1-Dichloropropene	5	< 17.5
1,2-Dichloropropane	5	< 17.5
1,3-Dichloropropane	5	< 17.5
2,2-Dichloropropane	5	< 17.5
cis-1,3-Dichloropropene	5	< 17.5
trans-1,3-Dichloropropene	5	< 17.5
Ethyl Acetate	10	< 35
Ethyl Benzene	5	< 17.5
Ethyl Ether	10	< 35
Ethyl methacrylate	5	< 17.5
Hexachlorobutadiene	5	< 17.5
Hexachloroethane	5	< 17.5
2-Hexanone	10	< 35
Isopropylbenzene	5	< 17.5
p-Isopropyltoluene	5	< 17.5
Methylene Chloride	5	< 17.5
Methyl iodide	5	< 17.5
* 2-Methyl Naphthalene	5	< 17.5
4-Methyl-2-pentanone (MIBK)	50	< 175
MTBE	5	< 17.5
Naphthalene	5	< 17.5
n-Propylbenzene	5	< 17.5
Styrene	5	< 17.5
1,1,1,2-Tetrachloroethane	5	< 17.5
1,1,2,2-Tetrachloroethane	5	< 17.5
Tetrachloroethene	5	< 17.5

date completed:	tech:	approved by:
10/08/02	JM	J. F. Blair

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lab no. 02T04547
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-53 (4-5') - Grab - Sampled on 10/02/02 @ 9:20

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 35
Toluene	5	< 17.5
1,2,3-Trichlorobenzene	5	< 17.5
1,2,4-Trichlorobenzene	5	< 17.5
1,1,1-Trichloroethane	5	< 17.5
1,1,2-Trichloroethane	5	< 17.5
Trichloroethene	5	< 17.5
Trichlorofluoromethane	5	< 17.5
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 17.5
1,2,3-Trichloropropane	5	< 17.5
1,3,4-Trimethylbenzene	5	< 17.5
1,3,5-Trimethylbenzene	5	< 17.5
Vinyl acetate	10	< 35
Vinyl chloride	5	< 17.5
m & p-Xylenes	5	< 17.5
o-Xylenes	5	< 17.5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	63.8 **	70-121
Toluene-d8	66.2 **	81-117
4-Bromofluorobenzene	77.4	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

*2) No peak in retention window.

**3) Low recovery due to matrix effect.

date completed:	tech:	approved by:
10/08/02	JM	

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lab no. 02T04548
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: MW-2 (4-5') - Grab - Sampled on 10/02/02 @ 9:45

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 235
Acrylonitrile	50	< 235
Acetone	50	< 235
Benzene	5	< 23.5
Bromobenzene	5	< 23.5
Bromochloromethane	5	< 23.5
Bromodichloromethane	5	< 23.5
Bromoform	5	< 23.5
Bromomethane	5	< 23.5
2-Butanone (MEK)	50	< 235
sec-Butylbenzene	5	< 23.5
n-Butylbenzene	5	< 23.5
tert-Butylbenzene	5	< 23.5
Carbon disulfide	5	< 23.5
Carbon tetrachloride	5	< 23.5
Chlorobenzene	5	< 23.5
Chlorodibromomethane	5	< 23.5
Chloroethane	10	< 47
2-Chloroethyl Vinyl Ether	10	< 47
Chloroform	5	< 23.5
Chloromethane	5	< 23.5
2-Chlorotoluene	5	< 23.5
1,2-Dibromo-3-chloropropane	5	< 23.5
1,2-Dibromoethane (EDB)	5	< 23.5
Dibromomethane	5	< 23.5
1,2-Dichlorobenzene	5	< 23.5
1,3-Dichlorobenzene	5	< 23.5
1,4-Dichlorobenzene	5	< 23.5
1,4-Dichloro-2-butene	10	< 47
Dichlorodifluoromethane	5	< 23.5

date completed:	tech:	approved by:
10/08/02	JM	J. F. Klein

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lab no. 02T04548
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: MW-2 (4-5') - Grab - Sampled on 10/02/02 @ 9:45

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 23.5
1,2-Dichloroethane	5	< 23.5
1,1-Dichloroethene	5	< 23.5
cis-1,2-Dichloroethene	5	< 23.5
trans-1,2-Dichloroethene	5	< 23.5
1,1-Dichloropropene	5	< 23.5
1,2-Dichloropropane	5	< 23.5
1,3-Dichloropropane	5	< 23.5
2,2-Dichloropropane	5	< 23.5
cis-1,3-Dichloropropene	5	< 23.5
trans-1,3-Dichloropropene	5	< 23.5
Ethyl Acetate	10	< 47
Ethyl Benzene	5	< 23.5
Ethyl Ether	10	< 47
Ethyl methacrylate	5	< 23.5
Hexachlorobutadiene	5	< 23.5
Hexachloroethane	5	< 23.5
2-Hexanone	10	< 47
Isopropylbenzene	5	< 23.5
p-Isopropyltoluene	5	< 23.5
Methylene Chloride	5	< 23.5
Methyl iodide	5	< 23.5
* 2-Methyl Naphthalene	5	< 23.5
4-Methyl-2-pentanone (MIBK)	50	< 235
MTBE	5	< 23.5
Naphthalene	5	< 23.5
n-Propylbenzene	5	< 23.5
Styrene	5	< 23.5
1,1,1,2-Tetrachloroethane	5	< 23.5
1,1,2,2-Tetrachloroethane	5	< 23.5
Tetrachloroethene	5	< 23.5

date completed:	tech:	approved by:
10/08/02	JM	D. F. Blair

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lab no. 02T04548
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: MW-2 (4-5') - Grab - Sampled on 10/02/02 @ 9:45

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 47
Toluene	5	< 23.5
1,2,3-Trichlorobenzene	5	< 23.5
1,2,4-Trichlorobenzene	5	< 23.5
1,1,1-Trichloroethane	5	< 23.5
1,1,2-Trichloroethane	5	< 23.5
Trichloroethene	5	< 23.5
Trichlorofluoromethane	5	< 23.5
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 23.5
1,2,3-Trichloropropane	5	< 23.5
1,3,4-Trimethylbenzene	5	< 23.5
1,3,5-Trimethylbenzene	5	< 23.5
Vinyl acetate	10	< 47
Vinyl chloride	5	< 23.5
m & p-Xylenes	5	< 23.5
o-Xylenes	5	< 23.5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	79.3	70-121
Toluene-d8	77.1 **	81-117
4-Bromofluorobenzene	81.9	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

**3) Low recovery due to matrix effect.

date completed:	tech:	approved by:
10/08/02	JM	J. F. Blair

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lab no. 02T04549
p.o. no. 1660

rev: 0

SAMPLE DESCRIPTION:
Sample ID: PB-02-52 (4-5') - Grab - Sampled on 10/02/02 @ 10:00

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 155
Acrylonitrile	50	< 155
Acetone	50	< 155
Benzene	5	< 15.5
Bromobenzene	5	< 15.5
Bromochloromethane	5	< 15.5
Bromodichloromethane	5	< 15.5
Bromoform	5	< 15.5
Bromomethane	5	< 15.5
2-Butanone (MEK)	50	< 155
sec-Butylbenzene	5	< 15.5
n-Butylbenzene	5	< 15.5
tert-Butylbenzene	5	< 15.5
Carbon disulfide	5	< 15.5
Carbon tetrachloride	5	< 15.5
Chlorobenzene	5	< 15.5
Chlorodibromomethane	5	< 15.5
Chloroethane	10	< 31
2-Chloroethyl Vinyl Ether	10	< 31
Chloroform	5	< 15.5
Chloromethane	5	< 15.5
2-Chlorotoluene	5	< 15.5
1,2-Dibromo-3-chloropropane	5	< 15.5
1,2-Dibromoethane (EDB)	5	< 15.5
Dibromomethane	5	< 15.5
1,2-Dichlorobenzene	5	< 15.5
1,3-Dichlorobenzene	5	< 15.5
1,4-Dichlorobenzene	5	< 15.5
1,4-Dichloro-2-butene	10	< 31
Dichlorodifluoromethane	5	< 15.5

date completed:	tech:	approved by:
10/09/02	JM	D. F. Klein

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lab no. 02T04549
p.o. no. 1660

rev: 0

SAMPLE DESCRIPTION:
Sample ID: PB-02-52 (4-5') - Grab - Sampled on 10/02/02 @ 10:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 15.5
1,2-Dichloroethane	5	< 15.5
1,1-Dichloroethene	5	< 15.5
cis-1,2-Dichloroethene	5	< 15.5
trans-1,2-Dichloroethene	5	< 15.5
1,1-Dichloropropene	5	< 15.5 (13.0)
1,2-Dichloropropane	5	< 15.5
1,3-Dichloropropane	5	< 15.5
2,2-Dichloropropane	5	< 15.5
cis-1,3-Dichloropropene	5	< 15.5
trans-1,3-Dichloropropene	5	< 15.5
Ethyl Acetate	10	< 31
Ethyl Benzene	5	< 15.5
Ethyl Ether	10	< 31
Ethyl methacrylate	5	< 15.5
Hexachlorobutadiene	5	< 15.5
Hexachloroethane	5	< 15.5
2-Hexanone	10	< 31
Isopropylbenzene	5	< 15.5
p-Isopropyltoluene	5	< 15.5
Methylene Chloride	5	< 15.5
Methyl iodide	5	< 15.5
* 2-Methyl Naphthalene	5	< 15.5
4-Methyl-2-pentanone (MIBK)	50	< 155
MTBE	5	< 15.5
Naphthalene	5	< 15.5
n-Propylbenzene	5	< 15.5
Styrene	5	< 15.5
1,1,1,2-Tetrachloroethane	5	< 15.5
1,1,2,2-Tetrachloroethane	5	< 15.5
Tetrachloroethene	5	< 15.5

date completed:	tech:	approved by:
10/09/02	JM	D. F. Blair

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lab no. 02T04549
p.o. no. 1660

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-52 (4-5') - Grab - Sampled on 10/02/02 @ 10:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 31
Toluene	5	26.6
1,2,3-Trichlorobenzene	5	< 15.5
1,2,4-Trichlorobenzene	5	< 15.5
1,1,1-Trichloroethane	5	< 15.5
1,1,2-Trichloroethane	5	< 15.5
Trichloroethene	5	< 15.5
Trichlorofluoromethane	5	< 15.5
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 15.5
1,2,3-Trichloropropane	5	< 15.5
1,3,4-Trimethylbenzene	5	< 15.5
1,3,5-Trimethylbenzene	5	< 15.5
Vinyl acetate	10	< 31
Vinyl chloride	5	< 15.5
m & p-Xylenes	5	< 15.5 (8.4)
o-Xylenes	5	< 15.5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	85.1	70-121
Toluene-d8	79.7 **	81-117
4-Bromofluorobenzene	80.3	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

3) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantificaton. The value is an estimate only.

**4) Low recovery due to matrix effect.

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lab no. 02T04550
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: MW-1 (4-5') - Grab - Sampled on 10/02/02 @ 10:20

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 195
Acrylonitrile	50	< 195
Acetone	50	< 195
Benzene	5	< 19.5
Bromobenzene	5	< 19.5
Bromochloromethane	5	< 19.5
Bromodichloromethane	5	< 19.5
Bromoform	5	< 19.5
Bromomethane	5	< 19.5
2-Butanone (MEK)	50	< 195
sec-Butylbenzene	5	< 19.5
n-Butylbenzene	5	< 19.5
tert-Butylbenzene	5	< 19.5
Carbon disulfide	5	< 19.5
Carbon tetrachloride	5	< 19.5
Chlorobenzene	5	< 19.5
Chlorodibromomethane	5	< 19.5
Chloroethane	10	< 39
2-Chloroethyl Vinyl Ether	10	< 39
Chloroform	5	< 19.5
Chloromethane	5	< 19.5
2-Chlorotoluene	5	< 19.5
1,2-Dibromo-3-chloropropane	5	< 19.5
1,2-Dibromoethane (EDB)	5	< 19.5
Dibromomethane	5	< 19.5
1,2-Dichlorobenzene	5	< 19.5
1,3-Dichlorobenzene	5	< 19.5
1,4-Dichlorobenzene	5	< 19.5
1,4-Dichloro-2-butene	10	< 39
Dichlorodifluoromethane	5	< 19.5

date completed:	tech:	approved by:
10/09/02	JM	D. Fr. Klein

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lab no. 02T04550
p.o. no. 1660

rev: 0

SAMPLE DESCRIPTION: Sample ID: MW-1 (4-5') - Grab - Sampled on 10/02/02 @ 10:20

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 19.5
1,2-Dichloroethane	5	< 19.5
1,1-Dichloroethene	5	< 19.5
cis-1,2-Dichloroethene	5	< 19.5
trans-1,2-Dichloroethene	5	< 19.5
1,1-Dichloropropene	5	< 19.5 (16.2)
1,2-Dichloropropane	5	< 19.5
1,3-Dichloropropane	5	< 19.5
2,2-Dichloropropane	5	< 19.5
cis-1,3-Dichloropropene	5	< 19.5
trans-1,3-Dichloropropene	5	< 19.5
Ethyl Acetate	10	< 39
Ethyl Benzene	5	< 19.5
Ethyl Ether	10	< 39
Ethyl methacrylate	5	< 19.5
Hexachlorobutadiene	5	< 19.5
Hexachloroethane	5	< 19.5
2-Hexanone	10	< 39
Isopropylbenzene	5	< 19.5
p-Isopropyltoluene	5	< 19.5
Methylene Chloride	5	< 19.5
Methyl iodide	5	< 19.5
* 2-Methyl Naphthalene	5	< 19.5
4-Methyl-2-pentanone (MIBK)	50	< 195
MTBE	5	< 19.5
Naphthalene	5	< 19.5
n-Propylbenzene	5	< 19.5
Styrene	5	< 19.5
1,1,1,2-Tetrachloroethane	5	< 19.5
1,1,2,2-Tetrachloroethane	5	< 19.5
Tetrachloroethene	5	< 19.5

date completed: 10/09/02 | tech: JM | approved by: J. F. Klein

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lab no. 02T04550
p.o. no. 1660

rev: 0

SAMPLE DESCRIPTION: Sample ID: MW-1 (4-5') - Grab - Sampled on 10/02/02 @ 10:20

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 39
Toluene	5	62.5
1,2,3-Trichlorobenzene	5	< 19.5
1,2,4-Trichlorobenzene	5	< 19.5
1,1,1-Trichloroethane	5	< 19.5
1,1,2-Trichloroethane	5	< 19.5
Trichloroethene	5	< 19.5
Trichlorofluoromethane	5	< 19.5
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 19.5
1,2,3-Trichloropropane	5	< 19.5
1,3,4-Trimethylbenzene	5	< 19.5
1,3,5-Trimethylbenzene	5	< 19.5
Vinyl acetate	10	< 39
Vinyl chloride	5	< 19.5
m & p-Xylenes	5	< 19.5
o-Xylenes	5	< 19.5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	81.5	70-121
Toluene-d8	79.7 **	81-117
4-Bromofluorobenzene	84.2	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

3) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantificaton. The value is an estimate only.

**4) Low recovery due to matrix effect.

date completed:	tech:	approved by:
10/09/02	JM	

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lab no. 02T04551
p.o. no. 1660

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-58 (4-5') - Grab - Sampled on 10/02/02 @ 10:45

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 220
Acrylonitrile	50	< 220
Acetone	50	< 220
Benzene	5	< 22
Bromobenzene	5	< 22
Bromochloromethane	5	< 22
Bromodichloromethane	5	< 22
Bromoform	5	< 22
Bromomethane	5	< 22
2-Butanone (MEK)	50	< 220
sec-Butylbenzene	5	< 22
n-Butylbenzene	5	< 22
tert-Butylbenzene	5	< 22
Carbon disulfide	5	< 22
Carbon tetrachloride	5	< 22
Chlorobenzene	5	< 22
Chlorodibromomethane	5	< 22
Chloroethane	10	< 44
2-Chloroethyl Vinyl Ether	10	< 44
Chloroform	5	< 22
Chloromethane	5	< 22
2-Chlorotoluene	5	< 22
1,2-Dibromo-3-chloropropane	5	< 22
1,2-Dibromoethane (EDB)	5	< 22
Dibromomethane	5	< 22
1,2-Dichlorobenzene	5	< 22
1,3-Dichlorobenzene	5	< 22
1,4-Dichlorobenzene	5	< 22
1,4-Dichloro-2-butene	10	< 44
Dichlorodifluoromethane	5	< 22

date completed:	tech:	approved by:
10/09/02	JM	D. F. Blair

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lab no. 02T04551
p.o. no. 1660

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-58 (4-5') - Grab - Sampled on 10/02/02 @ 10:45

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 22
1,2-Dichloroethane	5	< 22
1,1-Dichloroethene	5	< 22
cis-1,2-Dichloroethene	5	< 22
trans-1,2-Dichloroethene	5	< 22
1,1-Dichloropropene	5	< 22 (17.5)
1,2-Dichloropropane	5	< 22
1,3-Dichloropropane	5	< 22
2,2-Dichloropropane	5	< 22
cis-1,3-Dichloropropene	5	< 22
trans-1,3-Dichloropropene	5	< 22
Ethyl Acetate	10	< 44
Ethyl Benzene	5	< 22
Ethyl Ether	10	< 44
Ethyl methacrylate	5	< 22
Hexachlorobutadiene	5	< 22
Hexachloroethane	5	< 22
2-Hexanone	10	< 44
Isopropylbenzene	5	< 22
p-Isopropyltoluene	5	< 22
Methylene Chloride	5	< 22
Methyl iodide	5	< 22
* 2-Methyl Naphthalene	5	< 22
4-Methyl-2-pentanone (MIBK)	50	< 220
MTBE	5	< 22
Naphthalene	5	< 22
n-Propylbenzene	5	< 22
Styrene	5	< 22
1,1,1,2-Tetrachloroethane	5	< 22
1,1,2,2-Tetrachloroethane	5	< 22
Tetrachloroethene	5	< 22

date completed:	tech:	approved by:
10/09/02	JM	J. F. Klein

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lab no. 02T04551
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-58 (4-5') - Grab - Sampled on 10/02/02 @ 10:45

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 44
Toluene	5	82.6
1,2,3-Trichlorobenzene	5	< 22
1,2,4-Trichlorobenzene	5	< 22
1,1,1-Trichloroethane	5	< 22
1,1,2-Trichloroethane	5	< 22
Trichloroethene	5	< 22
Trichlorofluoromethane	5	< 22
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 22
1,2,3-Trichloropropane	5	< 22
1,3,4-Trimethylbenzene	5	< 22
1,3,5-Trimethylbenzene	5	< 22
Vinyl acetate	10	< 44
Vinyl chloride	5	< 22
m & p-Xylenes	5	< 22 (19.2)
o-Xylenes	5	< 22

SURROGATES: Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	79.6	70-121
Toluene-d8	78.4 **	81-117
4-Bromofluorobenzene	80.1	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

3) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantificaton. The value is an estimate only.

**4) Low recovery due to matrix effect.

date completed:	tech:	approved by:
10/09/02	JM	D. F. Klein

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lab no. 02T04552
p.o. no. 1660

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-57 (4-5') - Grab - Sampled on 10/02/02 @ 10:55

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 180
Acrylonitrile	50	< 180
Acetone	50	< 180
Benzene	5	< 18
Bromobenzene	5	< 18
Bromochloromethane	5	< 18
Bromodichloromethane	5	< 18
Bromoform	5	< 18
Bromomethane	5	< 18
2-Butanone (MEK)	50	< 180
sec-Butylbenzene	5	< 18
n-Butylbenzene	5	< 18
tert-Butylbenzene	5	< 18
Carbon disulfide	5	< 18
Carbon tetrachloride	5	< 18
Chlorobenzene	5	< 18
Chlorodibromomethane	5	< 18
Chloroethane	10	< 36
2-Chloroethyl Vinyl Ether	10	< 36
Chloroform	5	< 18
Chloromethane	5	< 18
2-Chlorotoluene	5	< 18
1,2-Dibromo-3-chloropropane	5	< 18
1,2-Dibromoethane (EDB)	5	< 18
Dibromomethane	5	< 18
1,2-Dichlorobenzene	5	< 18
1,3-Dichlorobenzene	5	< 18
1,4-Dichlorobenzene	5	< 18
1,4-Dichloro-2-butene	10	< 36
Dichlorodifluoromethane	5	< 18

date completed:	tech:	approved by:
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lab no. 02T04552
p.o. no. 1660

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-57 (4-5') - Grab - Sampled on 10/02/02 @ 10:55

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 18
1,2-Dichloroethane	5	< 18
1,1-Dichloroethene	5	< 18
cis-1,2-Dichloroethene	5	< 18
trans-1,2-Dichloroethene	5	< 18
1,1-Dichloropropene	5	< 18 (14.8)
1,2-Dichloropropane	5	< 18
1,3-Dichloropropane	5	< 18
2,2-Dichloropropane	5	< 18
cis-1,3-Dichloropropene	5	< 18
trans-1,3-Dichloropropene	5	< 18
Ethyl Acetate	10	< 36
Ethyl Benzene	5	< 18
Ethyl Ether	10	< 36
Ethyl methacrylate	5	< 18
Hexachlorobutadiene	5	< 18
Hexachloroethane	5	< 18
2-Hexanone	10	< 36
Isopropylbenzene	5	< 18
p-Isopropyltoluene	5	< 18
Methylene Chloride	5	< 18
Methyl iodide	5	< 18
* 2-Methyl Naphthalene	5	< 18
4-Methyl-2-pentanone (MIBK)	50	< 180
MTBE	5	< 18
Naphthalene	5	< 18
n-Propylbenzene	5	< 18
Styrene	5	< 18
1,1,1,2-Tetrachloroethane	5	< 18
1,1,2,2-Tetrachloroethane	5	< 18
Tetrachloroethene	5	< 18

date completed: 10/09/02 | tech: JM | approved by: D. F. Klein

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lab no. 02T04552
p.o. no. 1660

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-57 (4-5') - Grab - Sampled on 10/02/02 @ 10:55

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 36
Toluene	5	41.4
1,2,3-Trichlorobenzene	5	< 18
1,2,4-Trichlorobenzene	5	< 18
1,1,1-Trichloroethane	5	< 18
1,1,2-Trichloroethane	5	< 18
Trichloroethene	5	< 18
Trichlorofluoromethane	5	< 18
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 18
1,2,3-Trichloropropane	5	< 18
1,3,4-Trimethylbenzene	5	< 18
1,3,5-Trimethylbenzene	5	< 18
Vinyl acetate	10	< 36
Vinyl chloride	5	< 18
m & p-Xylenes	5	< 18
o-Xylenes	5	< 18

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	84.0	70-121
Toluene-d8	80.9 **	81-117
4-Bromofluorobenzene	85.1	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

**3) Low recovery due to matrix effect.

date completed:	tech:	approved by:
10/09/02	JM	

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lab no. 02T04553
p.o. no. 1661

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-56 (4-5') - Grab - Sampled on 10/02/02 @ 11:00

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 220
Acrylonitrile	50	< 220
Acetone	50	< 220
Benzene	5	< 22
Bromobenzene	5	< 22
Bromochloromethane	5	< 22
Bromodichloromethane	5	< 22
Bromoform	5	< 22
Bromomethane	5	< 22
2-Butanone (MEK)	50	< 220
sec-Butylbenzene	5	< 22
n-Butylbenzene	5	< 22
tert-Butylbenzene	5	< 22
Carbon disulfide	5	< 22 (17.6)
Carbon tetrachloride	5	< 22
Chlorobenzene	5	< 22
Chlorodibromomethane	5	< 22
Chloroethane	10	< 44
2-Chloroethyl Vinyl Ether	10	< 44
Chloroform	5	< 22
Chloromethane	5	< 22
2-Chlorotoluene	5	< 22
1,2-Dibromo-3-chloropropane	5	< 22
1,2-Dibromoethane (EDB)	5	< 22
Dibromomethane	5	< 22
1,2-Dichlorobenzene	5	< 22
1,3-Dichlorobenzene	5	< 22
1,4-Dichlorobenzene	5	< 22
1,4-Dichloro-2-butene	10	< 44
Dichlorodifluoromethane	5	< 22

date completed:	tech:	approved by:
10/09/02	JM	J. F. Kelly

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lab no. 02T04553
p.o. no. 1661

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-56 (4-5') - Grab - Sampled on 10/02/02 @ 11:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 22
1,2-Dichloroethane	5	< 22
1,1-Dichloroethene	5	< 22
cis-1,2-Dichloroethene	5	< 22
trans-1,2-Dichloroethene	5	< 22
1,1-Dichloropropene	5	< 22 (18)
1,2-Dichloropropane	5	< 22
1,3-Dichloropropane	5	< 22
2,2-Dichloropropane	5	< 22
cis-1,3-Dichloropropene	5	< 22
trans-1,3-Dichloropropene	5	< 22
Ethyl Acetate	10	< 44
Ethyl Benzene	5	< 22
Ethyl Ether	10	< 44
Ethyl methacrylate	5	< 22
Hexachlorobutadiene	5	< 22
Hexachloroethane	5	< 22
2-Hexanone	10	< 44
Isopropylbenzene	5	< 22
p-Isopropyltoluene	5	< 22
Methylene Chloride	5	< 22
Methyl iodide	5	< 22
* 2-Methyl Naphthalene	5	< 22
4-Methyl-2-pentanone (MIBK)	50	< 220
MTBE	5	< 22
Naphthalene	5	< 22
n-Propylbenzene	5	< 22
Styrene	5	< 22
1,1,1,2-Tetrachloroethane	5	< 22
1,1,2,2-Tetrachloroethane	5	< 22
Tetrachloroethene	5	< 22

date completed:	tech:	approved by:
10/09/02	JM	J. F. Blair

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lab no. 02T04553
p.o. no. 1661

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-56 (4-5') - Grab - Sampled on 10/02/02 @ 11:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 44
Toluene	5	< 22
1,2,3-Trichlorobenzene	5	< 22
1,2,4-Trichlorobenzene	5	< 22
1,1,1-Trichloroethane	5	< 22
1,1,2-Trichloroethane	5	< 22
Trichloroethene	5	< 22
Trichlorofluoromethane	5	< 22
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 22
1,2,3-Trichloropropane	5	< 22
1,3,4-Trimethylbenzene	5	< 22
1,3,5-Trimethylbenzene	5	< 22
Vinyl acetate	10	< 44
Vinyl chloride	5	< 22
m & p-Xylenes	5	< 22
o-Xylenes	5	< 22

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	84.0	70-121
Toluene-d8	80.5 **	81-117
4-Bromofluorobenzene	85.0	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

3) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantificaton. The value is an estimate only.

**4) Low recovery due to matrix effect.

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lab no. 02T04554
p.o. no. 1661

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-56 (19.5-20') - Grab - Sampled on 10/02/02 @ 11:10

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 165
Acrylonitrile	50	< 165
Acetone	50	< 165
Benzene	5	< 16.5
Bromobenzene	5	< 16.5
Bromochloromethane	5	< 16.5
Bromodichloromethane	5	< 16.5
Bromoform	5	< 16.5
Bromomethane	5	< 16.5
2-Butanone (MEK)	50	< 165
sec-Butylbenzene	5	< 16.5
n-Butylbenzene	5	< 16.5
tert-Butylbenzene	5	< 16.5
Carbon disulfide	5	< 16.5
Carbon tetrachloride	5	< 16.5
Chlorobenzene	5	< 16.5
Chlorodibromomethane	5	< 16.5
Chloroethane	10	< 33
2-Chloroethyl Vinyl Ether	10	< 33
Chloroform	5	< 16.5
Chloromethane	5	< 16.5
2-Chlorotoluene	5	< 16.5
1,2-Dibromo-3-chloropropane	5	< 16.5
1,2-Dibromoethane (EDB)	5	< 16.5
Dibromomethane	5	< 16.5
1,2-Dichlorobenzene	5	< 16.5
1,3-Dichlorobenzene	5	< 16.5
1,4-Dichlorobenzene	5	< 16.5
1,4-Dichloro-2-butene	10	< 33
Dichlorodifluoromethane	5	< 16.5

date completed:	tech:	approved by:
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lab no. 02T04554
p.o. no. 1661

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-56 (19.5-20') - Grab - Sampled on 10/02/02 @ 11:10

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 16.5
1,2-Dichloroethane	5	< 16.5
1,1-Dichloroethene	5	< 16.5
cis-1,2-Dichloroethene	5	< 16.5
trans-1,2-Dichloroethene	5	< 16.5
1,1-Dichloropropene	5	< 16.5
1,2-Dichloropropane	5	< 16.5
1,3-Dichloropropane	5	< 16.5
2,2-Dichloropropane	5	< 16.5
cis-1,3-Dichloropropene	5	< 16.5
trans-1,3-Dichloropropene	5	< 16.5
Ethyl Acetate	10	< 33
Ethyl Benzene	5	< 16.5
Ethyl Ether	10	< 33
Ethyl methacrylate	5	< 16.5
Hexachlorobutadiene	5	< 16.5
Hexachloroethane	5	< 16.5
2-Hexanone	10	< 33
Isopropylbenzene	5	< 16.5
p-Isopropyltoluene	5	< 16.5
Methylene Chloride	5	< 16.5
Methyl iodide	5	< 16.5
* 2-Methyl Naphthalene	5	< 16.5
4-Methyl-2-pentanone (MIBK)	50	< 165
MTBE	5	< 16.5
Naphthalene	5	< 16.5
n-Propylbenzene	5	< 16.5
Styrene	5	< 16.5
1,1,1,2-Tetrachloroethane	5	< 16.5
1,1,2,2-Tetrachloroethane	5	< 16.5
Tetrachloroethene	5	< 16.5

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lab no. 02T04554
p.o. no. 1661

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-56 (19.5-20') - Grab - Sampled on 10/02/02 @ 11:10

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 33
Toluene	5	< 16.5
1,2,3-Trichlorobenzene	5	< 16.5
1,2,4-Trichlorobenzene	5	< 16.5
1,1,1-Trichloroethane	5	< 16.5
1,1,2-Trichloroethane	5	< 16.5
Trichloroethene	5	< 16.5
Trichlorofluoromethane	5	< 16.5
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 16.5
1,2,3-Trichloropropane	5	< 16.5
1,3,4-Trimethylbenzene	5	< 16.5
1,3,5-Trimethylbenzene	5	< 16.5
Vinyl acetate	10	< 33
Vinyl chloride	5	< 16.5
m & p-Xylenes	5	< 16.5
o-Xylenes	5	< 16.5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	97.8	70-121
Toluene-d8	94.0	81-117
4-Bromofluorobenzene	86.2	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

date completed:	tech:	approved by:
10/10/02	JM	J. F. Blair

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lab no. 02T04555
p.o. no. 1661

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-54 (4-5') - Grab - Sampled on 10/02/02 @ 11:40

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 195
Acrylonitrile	50	< 195
Acetone	50	< 195
Benzene	5	< 19.5
Bromobenzene	5	< 19.5
Bromochloromethane	5	< 19.5
Bromodichloromethane	5	< 19.5
Bromoform	5	< 19.5
Bromomethane	5	< 19.5
2-Butanone (MEK)	50	< 195
sec-Butylbenzene	5	< 19.5
n-Butylbenzene	5	< 19.5
tert-Butylbenzene	5	< 19.5
Carbon disulfide	5	< 19.5
Carbon tetrachloride	5	< 19.5
Chlorobenzene	5	< 19.5
Chlorodibromomethane	5	< 19.5
Chloroethane	10	< 39
2-Chloroethyl Vinyl Ether	10	< 39
Chloroform	5	< 19.5
Chloromethane	5	< 19.5
2-Chlorotoluene	5	< 19.5
1,2-Dibromo-3-chloropropane	5	< 19.5
1,2-Dibromoethane (EDB)	5	< 19.5
Dibromomethane	5	< 19.5
1,2-Dichlorobenzene	5	< 19.5
1,3-Dichlorobenzene	5	< 19.5
1,4-Dichlorobenzene	5	< 19.5
1,4-Dichloro-2-butene	10	< 39
Dichlorodifluoromethane	5	< 19.5

date completed:	tech:	approved by:
10/09/02	JM	J. F. Blair

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lab no. 02T04555
p.o. no. 1661

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-54 (4-5') - Grab - Sampled on 10/02/02 @ 11:40

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 19.5
1,2-Dichloroethane	5	< 19.5
1,1-Dichloroethene	5	< 19.5
cis-1,2-Dichloroethene	5	< 19.5
trans-1,2-Dichloroethene	5	< 19.5
1,1-Dichloropropene	5	< 19.5 (16.2)
1,2-Dichloropropane	5	< 19.5
1,3-Dichloropropane	5	< 19.5
2,2-Dichloropropane	5	< 19.5
cis-1,3-Dichloropropene	5	< 19.5
trans-1,3-Dichloropropene	5	< 19.5
Ethyl Acetate	10	< 39
Ethyl Benzene	5	< 19.5
Ethyl Ether	10	< 39
Ethyl methacrylate	5	< 19.5
Hexachlorobutadiene	5	< 19.5
Hexachloroethane	5	< 19.5
2-Hexanone	10	< 39
Isopropylbenzene	5	< 19.5
p-Isopropyltoluene	5	< 19.5
Methylene Chloride	5	< 19.5
Methyl iodide	5	< 19.5
* 2-Methyl Naphthalene	5	< 19.5
4-Methyl-2-pentanone (MIBK)	50	< 195
MTBE	5	< 19.5
Naphthalene	5	< 19.5
n-Propylbenzene	5	< 19.5
Styrene	5	< 19.5
1,1,1,2-Tetrachloroethane	5	< 19.5
1,1,2,2-Tetrachloroethane	5	< 19.5
Tetrachloroethene	5	< 19.5

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lab no. 02T04555
p.o. no. 1661

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-54 (4-5') - Grab - Sampled on 10/02/02 @ 11:40

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 39
Toluene	5	78.9
1,2,3-Trichlorobenzene	5	< 19.5
1,2,4-Trichlorobenzene	5	< 19.5
1,1,1-Trichloroethane	5	< 19.5
1,1,2-Trichloroethane	5	< 19.5
Trichloroethene	5	< 19.5
Trichlorofluoromethane	5	< 19.5
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 19.5
1,2,3-Trichloropropane	5	< 19.5
1,3,4-Trimethylbenzene	5	< 19.5
1,3,5-Trimethylbenzene	5	< 19.5
Vinyl acetate	10	< 39
Vinyl chloride	5	< 19.5
m & p-Xylenes	5	< 19.5 (9.9)
o-Xylenes	5	< 19.5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	84.5	70-121
Toluene-d8	79.3 **	81-117
4-Bromofluorobenzene	76.4	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

3) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantificaton. The value is an estimate only.

**4) Low recovery due to matrix effect.

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lab no. 02T04556
p.o. no. 1661

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-54 (19.5-20') - Grab - Sampled on 10/02/02 @ 12:00

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 190
Acrylonitrile	50	< 190
Acetone	50	< 190
Benzene	5	< 19
Bromobenzene	5	< 19
Bromochloromethane	5	< 19
Bromodichloromethane	5	< 19
Bromoform	5	< 19
Bromomethane	5	< 19
2-Butanone (MEK)	50	< 190
sec-Butylbenzene	5	< 19
n-Butylbenzene	5	< 19
tert-Butylbenzene	5	< 19
Carbon disulfide	5	< 19
Carbon tetrachloride	5	< 19
Chlorobenzene	5	< 19
Chlorodibromomethane	5	< 19
Chloroethane	10	< 38
2-Chloroethyl Vinyl Ether	10	< 38
Chloroform	5	< 19
Chloromethane	5	< 19
2-Chlorotoluene	5	< 19
1,2-Dibromo-3-chloropropane	5	< 19
1,2-Dibromoethane (EDB)	5	< 19
Dibromomethane	5	< 19
1,2-Dichlorobenzene	5	< 19
1,3-Dichlorobenzene	5	< 19
1,4-Dichlorobenzene	5	< 19
1,4-Dichloro-2-butene	10	< 38
Dichlorodifluoromethane	5	< 19

date completed:	tech:	approved by:
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lab no. 02T04556
p.o. no. 1661

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-54 (19.5-20') - Grab - Sampled on 10/02/02 @ 12:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 19
1,2-Dichloroethane	5	< 19
1,1-Dichloroethene	5	< 19
cis-1,2-Dichloroethene	5	< 19
trans-1,2-Dichloroethene	5	< 19
1,1-Dichloropropene	5	< 19
1,2-Dichloropropane	5	< 19
1,3-Dichloropropane	5	< 19
2,2-Dichloropropane	5	< 19
cis-1,3-Dichloropropene	5	< 19
trans-1,3-Dichloropropene	5	< 19
Ethyl Acetate	10	< 38
Ethyl Benzene	5	< 19
Ethyl Ether	10	< 38
Ethyl methacrylate	5	< 19
Hexachlorobutadiene	5	< 19
Hexachloroethane	5	< 19
2-Hexanone	10	< 38
Isopropylbenzene	5	< 19
p-Isopropyltoluene	5	< 19
Methylene Chloride	5	< 19
Methyl iodide	5	< 19
* 2-Methyl Naphthalene	5	< 19
4-Methyl-2-pentanone (MIBK)	50	< 190
MTBE	5	< 19
Naphthalene	5	< 19
n-Propylbenzene	5	< 19
Styrene	5	< 19
1,1,1,2-Tetrachloroethane	5	< 19
1,1,2,2-Tetrachloroethane	5	< 19
Tetrachloroethene	5	< 19

date completed:	tech:	approved by:
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lab no. 02T04556
p.o. no. 1661

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-54 (19.5-20') - Grab - Sampled on 10/02/02 @ 12:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 38
Toluene	5	< 19
1,2,3-Trichlorobenzene	5	< 19
1,2,4-Trichlorobenzene	5	< 19
1,1,1-Trichloroethane	5	< 19
1,1,2-Trichloroethane	5	< 19
Trichloroethene	5	< 19
Trichlorofluoromethane	5	< 19
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 19
1,2,3-Trichloropropane	5	< 19
1,3,4-Trimethylbenzene	5	< 19
1,3,5-Trimethylbenzene	5	< 19
Vinyl acetate	10	< 38
Vinyl chloride	5	< 19
m & p-Xylenes	5	< 19
o-Xylenes	5	< 19

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	95.1	70-121
Toluene-d8	95.2	81-117
4-Bromofluorobenzene	86.2	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

date completed:	tech:	approved by:
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lab no. 02T04557
p.o. no. 1661

rev: 0

SAMPLE
DESCRIPTION: Sample ID: PB-02-55 (4-5') - Grab - Sampled on 10/02/02 @ 12:15

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 215
Acrylonitrile	50	< 215
Acetone	50	< 215
Benzene	5	< 21.5
Bromobenzene	5	< 21.5
Bromochloromethane	5	< 21.5
Bromodichloromethane	5	< 21.5
Bromoform	5	< 21.5
Bromomethane	5	< 21.5
2-Butanone (MEK)	50	< 215
sec-Butylbenzene	5	< 21.5
n-Butylbenzene	5	< 21.5
tert-Butylbenzene	5	< 21.5
Carbon disulfide	5	< 21.5
Carbon tetrachloride	5	< 21.5
Chlorobenzene	5	< 21.5
Chlorodibromomethane	5	< 21.5
Chloroethane	10	< 43
2-Chloroethyl Vinyl Ether	10	< 43
Chloroform	5	< 21.5
Chloromethane	5	< 21.5
2-Chlorotoluene	5	< 21.5
1,2-Dibromo-3-chloropropane	5	< 21.5
1,2-Dibromoethane (EDB)	5	< 21.5
Dibromomethane	5	< 21.5
1,2-Dichlorobenzene	5	< 21.5
1,3-Dichlorobenzene	5	< 21.5
1,4-Dichlorobenzene	5	< 21.5
1,4-Dichloro-2-butene	10	< 43
Dichlorodifluoromethane	5	< 21.5

date completed:	tech:	approved by:
10/09/02	JM	J. F. Blain

...reserved pending our written approval, as a mutual protection

GeoTrans Inc.
710 Avis Drive

Ann Arbor, MI 48108
ATTN: Craig Savage

bec laboratories, inc.
705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 02T04557
p.o. no. 1661

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-55 (4-5') - Grab - Sampled on 10/02/02 @ 12:15

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethane	5	< 21.5
1,2-Dichloroethane	5	< 21.5
1,1-Dichloroethene	5	< 21.5
cis-1,2-Dichloroethene	5	< 21.5
trans-1,2-Dichloroethene	5	< 21.5
1,1-Dichloropropene	5	< 21.5 (17.5)
1,2-Dichloropropane	5	< 21.5
1,3-Dichloropropane	5	< 21.5
2,2-Dichloropropane	5	< 21.5
cis-1,3-Dichloropropene	5	< 21.5
trans-1,3-Dichloropropene	5	< 21.5
Ethyl Acetate	10	< 43
Ethyl Benzene	5	< 21.5
Ethyl Ether	10	< 43
Ethyl methacrylate	5	< 21.5
Hexachlorobutadiene	5	< 21.5
Hexachloroethane	5	< 21.5
2-Hexanone	10	< 43
Isopropylbenzene	5	< 21.5
p-Isopropyltoluene	5	< 21.5
Methylene Chloride	5	< 21.5
Methyl iodide	5	< 21.5
* 2-Methyl Naphthalene	5	< 21.5
4-Methyl-2-pentanone (MIBK)	50	< 43
MTBE	5	< 21.5
Naphthalene	5	< 21.5
n-Propylbenzene	5	< 21.5
Styrene	5	< 21.5
1,1,1,2-Tetrachloroethane	5	< 21.5
1,1,2,2-Tetrachloroethane	5	< 21.5
Tetrachloroethene	5	< 21.5

date completed: 10/09/02 | tech: JM | approved by: J. F. Blair

... confidential communications. Authorization for duplication in whole or in part is reserved pending our written approval, as a mutual protection.

GeoTrans Inc.
710 Avis Drive

Ann Arbor, MI 48108
ATTN: Craig Savage

bec laboratories, inc.
705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 02T04557
p.o. no. 1661

rev: 0

SAMPLE DESCRIPTION: Sample ID: PB-02-55 (4-5') - Grab - Sampled on 10/02/02 @ 12:15

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Tetrahydrofuran	10	< 43
Toluene	5	< 21.5
1,2,3-Trichlorobenzene	5	< 21.5
1,2,4-Trichlorobenzene	5	< 21.5
1,1,1-Trichloroethane	5	< 21.5
1,1,2-Trichloroethane	5	< 21.5
Trichloroethene	5	< 21.5
Trichlorofluoromethane	5	< 21.5
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 21.5
1,2,3-Trichloropropane	5	< 21.5
1,3,4-Trimethylbenzene	5	< 21.5
1,3,5-Trimethylbenzene	5	< 21.5
Vinyl acetate	10	< 43
Vinyl chloride	5	< 21.5
m & p-Xylenes	5	< 21.5
o-Xylenes	5	< 21.5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	79.1	70-121
Toluene-d8	80.2 **	81-117
4-Bromofluorobenzene	82.5	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

* 2) No peak in retention window.

3) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantificaton. The value is an estimate only.

**4) Low recovery due to matrix effect.

date completed:	tech:	approved by:
10/09/02	JM	J. F. Blaine

b.e.c. laboratories
TWINSBURG OHIO — TOLEDO OHIO

☐ **RUSH**-ADDITIONAL CHARGE
RESULTS BY 10-16-02
MUST CONFIRM WITH LABORATORY

Analysis Per Quote No.

REPORT TO: CRAIG SAVAGE	PHONE: (734) 213-5042
COMPANY: GEOTRANS, INC	FAX: (734) 213-5008
ADDRESS: 710 AVIS DR, ANN ARBOR	STATE: MI ZIP: 48108
SITE LOCATION: NAPOLEON, OHIO	SAMPLER (PRINT): M. RACZ

MATRIX: WATER - W, SOIL - S, SLUDGE - SL, DRUMS - D, OTHER - O

SAMPLE IDENTIFICATION	DATE TIME	COMPOSITE	GRAB	# CONTAINERS	SHIPPED VIA	CHARACTERISTICS: TCLP: METALS ☐ VOA ☐ SVOA ☐ PEST/HERB ☐	FLASH POINT: OPEN CUP ☐ CLOSED CUP ☐	PAINT FILTER	pH	CYANIDE: TOTAL ☐ REACTIVE ☐	SULFIDE: TOTAL ☐ REACTIVE ☐	SOLIDS: TOTAL ☐ DISS ☐ SUSP ☐ ASH ☐	TOTALS: METALS: RCRA (8) ☐ MICHIGAN (10) ☐	VOLATILES: 624 ☐ 8240 ☐ 8260B	SEMIVOLATILES: 625 ☐ 8270 ☐	PESTICIDES: 608 ☐ 8080 ☐	PCB'S: 608 ☐ 8080 ☐	HERBICIDES: 8150 ☐	PRIORITY POLLUTANTS: METALS ☐ VOA ☐ SVOA ☐ PEST/PCB ☐	UST: BTEX: 602 ☐ 8020 ☐ PLUS MTBE ☐ PLUS TBA ☐	TPH: GRO ☐ DRO ☐ 418.1 ☐	PAH: 8100 ☐ 8270 ☐	LEAD: TCLP ☐ TOTAL ☐	OTHER
MW-3 (4-5')	10/2/02 9:00		X	3										X						02	TO	4546		
PB-02-53 (4-5')	10/2/02 9:20		X	3										X						02	TO	4547		
MW-2 (4-5')	10/2/02 9:45		X	3										X						02	TO	4548		
PB-02-52 (4-5')	10/2/02 10:00		X	3										X						02	TO	4549		
MW-1 (4-5')	10/2/02 10:20		X	3										X						02	TO	4550		
PB-02-58 (4-5')	10/2/02 10:45		X	3										X						02	TO	4551		
PB-02-57 (4-5')	10/2/02 10:55		X	3										X						02	TO	4552		

COMMENTS AND SPECIAL HANDLING INSTRUCTIONS
PLEASE PRESERVE WITH SODIUM BISULFATE (METHOD 8260B)

RECEIVED BY LABORATORY: 17.5°C — DATE — TIME

RECEIVED BY SAMPLER:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: M Racz	DATE 10/2/02	TIME 14:00	RECEIVED BY: A. Tomlinson	DATE 10-2-02	TIME 1:55
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME

SAMPLE MAY BE RETURNED TO CLIENT AT BEC'S DISCRETION, UNLESS ARRANGEMENTS HAVE BEEN MADE PRIOR TO SAMPLE SUBMISSION.

b.e.c. laboratories
TWINSBURG OHIO TOLEDO OHIO

☐ **RUSH**-ADDITIONAL CHARGE
RESULTS BY 10-16-02
MUST CONFIRM WITH LABORATORY

Analysis Per Quote No. _____

REPORT TO	PHONE
CRAIG SAVAGE	(734) 213-5042
COMPANY	FAX
GEOTRANS	(734) 213-5048
ADDRESS	STATE / ZIP
710 ANIS DR, ANN ARBOR	MI 48108
SITE LOCATION	SAMPLER (PRINT)
NAPOLEON, OHIO	M. RAEZ

MATRIX: WATER - W SOIL - S SLUDGE - SL DRUMS - D OTHER - O

SAMPLE IDENTIFICATION	DATE / TIME	COMPOSITE	GRAB	# CONTAINERS	SHIPPED VIA	CHARACTERISTICS: TCLP: METALS ☐ VOA ☐ SVOA ☐ PEST/HERB ☐	FLASH POINT: OPEN CUP ☐ CLOSED CUP ☐	PAINT FILTER	pH	CYANIDE: TOTAL ☐ REACTIVE ☐	SULFIDE: TOTAL ☐ REACTIVE ☐	SOLIDS: TOTAL ☐ DISS ☐ SUSP ☐ ASH ☐	TOTALS: METALS: RCRA (8) ☐ MICHIGAN (10) ☐	VOLATILES: 624 ☐ 8240 ☐ 8260 ☐	SEMIVOLATILES: 625 ☐ 8270 ☐	PESTICIDES: 608 ☐ 8080 ☐	PCB'S: 608 ☐ 8080 ☐	HERBICIDES: 8150 ☐	PRIORITY POLLUTANTS: METALS ☐ VOA ☐ SVOA ☐ PEST/PCB ☐	UST: BTEX: 602 ☐ 8020 ☐ PLUS MTBE ☐ PLUS TBA ☐	TPH: GRO ☐ DRO ☐ 418.1 ☐	PAH: 8100 ☐ 8270 ☐	LEAD: TCLP ☐ TOTAL ☐	OTHER
PB-02-56 (4-5')	10/2/02 11:00		X	3									X							02704			55.3	
PB-02-56 (19.5-20')	10/2/02 11:10		X	3									X							02704			55.4	
PB-02-54 (4-5')	10/2/02 11:40		X	3									X							02704			55.5	
PB-02-54 (19.5-20')	10/2/02 12:00		X	3									X							02704			55.6	
PB-02-55 (4-5')	10/2/02 12:15		X	3									X							02704			55.7	

COMMENTS AND SPECIAL HANDLING INSTRUCTIONS
PLEASE PRESERVE WITH SODIUM BISULFATE (METHOD 8260B)

RECEIVED BY LABORATORY 12.5°C

	DATE	TIME		DATE	TIME
RECEIVED BY SAMPLER:			RECEIVED BY:		
RELINQUISHED BY:	10-2-02	14:05	RECEIVED BY:		
RELINQUISHED BY:			RECEIVED BY:		

SAMPLE MAY BE RETURNED TO CLIENT AT BEC'S DISCRETION, UNLESS ARRANGEMENTS HAVE BEEN MADE PRIOR TO SAMPLE SUBMISSION.

Henry County
Campbell's Soup
General

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

O.E.P.A.
S.E.D.O
2002 OCT 16 AM
RECEIVED
OCT 25 2002
OHIO E.P.A.
N.W.D.O.

October 4, 2002

Re: ***Campbell Soup Company***
Campbell Soup Supply Company
OHD005419171
Financial Assurance

Osman M. Aly,
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103

Dear Mr. Aly:

On September 30, 2002, Ohio EPA conducted a review of the financial assurance and liability coverage documentation on file for the Campbell Soup Company. I evaluated the Napoleon Ohio facility for compliance with closure/post-closure cost estimate, closure/post-closure care and liability coverage requirements as set forth in Ohio Administrative Code (OAC) rules 3745-66-42 through 3745-66-47 and the August 2001 Amended Director's Final Findings and Orders (Orders).

On October 18, 2000, Orders were issued for the Campbell Soup Company. These Orders were amended August 22, 2001. The Orders, Section V.1.b, requires that Campbell Soup establish financial assurance for closure and liability coverage.

Financial assurance documentation was submitted July 23 and August 2, 2002. To demonstrate financial assurance for closure/post care requirements Campbell Soup submitted Letter of Credit (LOC) No. P-226892 and standby trust agreement issued by JP Morgan Chase Bank. To demonstrate financial assurance for liability requirements Campbell Soup submitted LOC No. P-226893 and a standby trust agreement issued by JP Morgan Chase Bank.

GENERAL CONCERNS:

The LOC and the Standby Trust Agreement received July 23, and August 2, 2002 do not have the exact wording as required.

The LOC and Standby Trust Agreements must be worded exactly as specified in the OAC rules 3745-55-51. The closure/post-closure LOC must be worded identical to

OAC rule 3745-55-51(D) and have a Standby Trust Agreement worded with the exact wording of OAC rule 3745-55-51 (A). The liability LOC must be worded identical to OAC rule 3745-55-51 (K) and have a Standby Trust Agreement worded with exact wording of OAC rule 3745-55-51(M).

These financial assurance mechanisms must be revised to include the exact wording. Please have the JP Morgan Chase Bank representative contact me if there are questions about the wording of the LOC and Standby Trust Agreement. Violations are not being cited at this time but your current financial assurance submittals are deficient and need to be corrected.

The correct wording must be submitted within 15 days of receipt of this letter.

If you have any questions, do not hesitate to contact me at (614)644-2951.

Sincerely,

Tina Jennings

Tina Jennings
Compliance Assurance Section
Division of Hazardous Waste Management

G:\USERS\TJENNING\Tj03\campbell.wpd

cc: John Schierberl, Supervisor, CAS, DHWM
Michael Terpinski, NWDO, DHWM
Colleen Weaver, NWDO, DHWM
Todd Anderson, Legal
Tammy McConnell, RIS, DHWM

Henry County
Campbell's Soup General

GeoTrans, Inc.
A TETRA TECH COMPANY

710 Avis Drive
Ann Arbor, MI 48108

www.geotransinc.com

734-213-2204 FAX 734-213-5008

September 27, 2002

RECEIVED
SEP 30 2002
OHIO E.P.A.
N.W.D.O.

Mr. James Moseley
Ohio EPA - NWDO
347 North Dunbrigde Drive
Bowling Green, OH 43402

RE: Campbell Soup Company, Napoleon Site
August 2002 Soil Samples

Dear Mr. Moseley,

On August 26 and 27, 2002, in accordance with the approved modified Closure Plan, GeoTrans geologists collected soil samples at 15 locations at the Campbell Soup Company Napoleon, Ohio, site using Encore sampling tools. Three replicate samples for each location were submitted to BEC Laboratories, Inc. (BEC) in Toledo, Ohio on August 27, 2002.

We contacted BEC on September 16, 2002 to check on the status of our samples. We did not hear from BEC until September 19, 2002. On September 19, 2002, Mr. John Blair of BEC indicated that there were several problems with our samples. He explained that the samples were extracted within the required 48-hour time frame, but the extracts were not run until September 7, or ten days into the 14-day holding time. The QA surrogate samples failed their required QA tests to demonstrate acceptable recovery. Equipment failure prevented the samples from being re-run and the sample extracts were set aside well past their acceptable holding times. Conversations with BEC chemists and our own internal Ph.D. analytical chemists confirm that the samples are now unusable.

GeoTrans plans to re-sample the soil from the same general vicinity and depths as completed on August 26 and 27, 2002, in accordance with the modified Closure Plan, with one exception. Since groundwater samples were collected from MW-1, MW-2 and MW-3 from 15 to 20 feet below surface grade (bsg), soil samples will not be collected from this interval during the re-sampling. Therefore, a total of 12 samples will be submitted for laboratory analysis instead of the 15 samples collected previously, 10 from 4-5 feet bsg at locations presented in Figure 1 of the Shallow Groundwater Report, dated September 25, 2002, and 2 from 19.5-20 feet bsg at PB-02-54 and PB-02-56. We plan to complete this soil re-sampling on Wednesday October 2, 2002.

Also, per your e-mail request dated September 27, 2002, we have attached the QA/QC report from the laboratory analysis of the groundwater samples collected on September 9, 2002.

If you have any questions regarding these matters please do not hesitate to give me a call at 734.213.5042.

Sincerely,

Craig A. Savage
Associate Hydrogeologist
Project Manager

Cc: Dr. Osman Aly, Campbell Soup

GC/MS

VOLATILE METHOD 8260

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 09/13/2002 Standard ID: #969 Inst./Detec: VOL2-GC/MS

Laboratory ID#: BA05309 Matrix: WATER Analyst: JH

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			
	Spike 1	Spike 2	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	Method Blank ug/L
Dibromofluoromethane	49.1	59.6	19.3	50ug/L	109	80 - 120	100%
D8-Toluene	49.3	50.0	1.4	50ug/L	99	80 - 120	101%
4-Bromofluorobenzene	58.0	59.0	1.7	50ug/L	117	80 - 120	100%
COMPOUNDS							
1,1-Dichloroethene	10.0	11.5	14.0	10ug/L	108%	61 - 145	<1
Trichloroethene	11.5	10.7	7.2	10ug/L	111%	76 - 127	<1
Benzene	12.0	11.2	6.9	10ug/L	116%	71 - 170	<1
Toluene	9.8	10.1	3.0	10ug/L	100%	76 - 125	<1
Chlorobenzene	12.3	12.3	0.0	10ug/L	123%	75 - 130	<1

* Matrix spike precision +/-20 Relative Percent Difference.

(ug/L is equivalent to ppb)

Comments: _____

GC/MS
SEMI-VOLATILE METHOD 8270
REPRESENTATIVE EXTRACTION BATCH QUALITY CONTROL SUMMARY

Analysis Date: 09/10/2002 Extraction Date: 09/10/2002

Standard ID: #904/#905 Analyst: RG

Matrix: Water

SURROGATES	Method Standard % Recovery	Standard Concentration	Water Matrix Range	Method Blank µg/L
2-Fluorophenol	54	100ug/L	21-110	56
D6-Phenol	40	100ug/L	10-110	42
D5-Nitrobenzene	86	100ug/L	34-135	81
2-Fluorobiphenyl	88	100ug/L	43-119	82
2,4,6-Tribromophenol	94	100ug/L	10-123	92
D14-Terphenyl	145	100ug/L	33-141	137
COMPOUNDS				
Phenol	43	100ug/L	12-110	<5
2-Chlorophenol	82	100ug/L	27-123	<5
1,4-Dichlorobenzene	74	100ug/L	33-97	<5
N-nitrosodiprpylamine	89	100ug/L	41-140	<5
1,2,4-Trichloroenzene	81	100ug/L	39-105	<5
4-Chloro-3-Methyl Phenol	98	100ug/L	23-133	<5
Acenaphthene	97	100ug/L	10-118	<5
2,4 Dinitrotoluene	93	100ug/L	10-129	<5
4 - Nitrophenol	46	100ug/L	15-139	<5
Pentachlorophenol	66	100ug/L	9-103	<5
Pyrene	139	100ug/L	26-141	<5

Comments:

GC/MS

SEMI-VOLATILE METHOD 8270

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 09/10/2002 Standard ID: #904/#905 Inst./Detec: HP5972/GC-MS

Laboratory ID#: MSTD Matrix: WATER Analyst: RG

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			
	Spike 1	Spike 2	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	Method Blank ug/L
2-Fluorophenol	54.0	54.0	0.0	100ug/L	54	21-110	56
D5-Phenol	40.0	39.0	2.5	100ug/L	40	10-110	42
D5-Nitrobenzene	86.0	87.0	1.2	100ug/L	87	34-135	81
2-Fluorobiphenyl	88.0	91.0	3.4	100ug/L	90	43-119	82
2,4,6-Tribromophenol	94.0	98.0	4.2	100ug/L	96	10-123	92
D14-Terphenyl	145.0	147.0	1.4	100ug/L	146	33-141	137
COMPOUNDS							
Phenol	43.0	43.0	0.0	100ug/L	43	12-110	<5
2-Chlorophenol	82.0	82.0	0.0	100ug/L	82	27-123	<5
1,4-Dichlorobenzene	74.0	75.0	1.3	100ug/L	75	36-97	<5
N-nitrosodipropylamine	89.0	89.0	0.0	100ug/L	89	41-140	<5
1,2,4-Trichlorobenzene	81.0	82.0	1.2	100ug/L	82	39-105	<5
4-Chloro-3-Methyl Phenol	98.0	98.0	0.0	100ug/L	96	23-123	<5
Acenaphthene	97.0	99.0	2.0	100ug/L	98	10-118	<5
2,4-Dinitrotoluene	93.0	97.0	4.2	100ug/L	95	10-129	<5
4-Nitrophenol	46.0	47.0	2.2	100ug/L	47	15-139	<5
Pentachlorophenol	66.0	74.0	11.4	100ug/L	70	9-103	<5
Pyrene	139.0	148.0	6.3	100ug/L	144	26-140	<5

* Matrix Spike Precision +/-20 Relative Percent Difference.

Comments:

09/27/2002 13:01 8102298650 BRIGHTONANAY PAGE

Henry County
Campbell's Soup Generator

GeoTrans, Inc.
A TETRA TECH COMPANY

LETTER OF TRANSMITTAL

710 Avis Drive, Ann Arbor, MI 48108 • (734) 213-2204 • (734) 213-5008 (FAX)

Date: September 25, 2002

RECEIVED
SEP 26 2002
OHIO E.P.A.
N.W.D.O.

To: Mr. James Moseley
Ohio EPA - NWDO
347 North Dunbrigde Drive
Bowling Green, OH 43402

Transmitted By:

☐ First Class Mail ☑ Federal Express ☐ Courier

☐ Registered Mail ☐ UPS ☐ Other_____

Job #: P896.104

Re: Campbell Soup RCRA Closure Plan, Napoleon Facility

We are enclosing: Shallow Groundwater Report

Remarks:

On behalf of the Campbell Soup Supply Company, GeoTrans is submitting two (2) copies of the Shallow Groundwater Report, summarizing the shallow groundwater investigation that occurred on August 26 and 27, 2002.

Please call me at (734) 213 – 4068 with any questions.

copy: Pamela Allen, OEPA
Dr. Osman Aly, Campbell Soup
Michael Maringer, Campbell Soup

By: Tesha Yielding
Tesha Yielding

Henry County
Campbells Soup
General

GeoTrans, Inc.
A TETRA TECH COMPANY

FAX TRANSMISSION COVER SHEET

710 Avis Drive
Ann Arbor, MI 48108
(734) 213-2204
Fax: (734) 213-5008

To: James Moseley **Date:** **8/30/02**

Company or Division: OEPA – NWDO **Number of Pages:** (Including Cover Sheet)

Fax Number: (419) 352 – 8468 **Phone Number:** (419) 373 – 3015

From: Tesha Yielding

Remarks:

The approved RCRA Closure Plan schedule for the Campbell Soup facility in Napoleon, Ohio, requires submittal of the waste characterization analytical results by August 31, 2002. The laboratory report and chain-of-custody documentation for waste characterization samples PB-01, PB-01-32, and PB-01-34 were submitted to the OEPA on August 21, 2002. The final waste characterization sample, PB-01-28, was collected on August 26, 2002. Attached is a preliminary laboratory report for the final waste characterization sample. The final laboratory report will be submitted to you at a later date.

Copy: Dr. Aly, Campbell Soup (856) 968 – 2809

IF YOU DO NOT RECEIVE THE NUMBER OF PAGES LISTED ABOVE, PLEASE CALL.

This facsimile contains Privileged and Confidential information intended only for the use of the Addressee(s) named above. If you are not the intended recipient of this facsimile, or employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination or copying of this facsimile is strictly prohibited. If you received this facsimile in error, please notify us by telephone and return the original facsimile to us at the above address via the U.S. Postal service. Thank You.

TETRA TECH MPS

LABORATORY REPORT

CLIENT: GeoTrans Inc. - Campbell Soup
SAMPLE MATRIX: TCLP/ZHE- Soil
ATTN: Craig Savage
REPORT DATE: 08/30/2002 **COC # 00961**
ANALYSIS DATE: 08/28/2002

CLIENT ID:				PB-02-28 (3-6 feet) TCLP				
SAMPLE DATE:				08/27/02				
LAB ID:				020827004				
PARAMETER	MDL	UNITS				RCRA Regulatory Level (mg/L)	METHOD	ANALYST
Methyl Ethyl Ketone (MEK)	0.05	mg/L		nd		200	SW 846 - Method 8021	RWD
Benzene	0.01	mg/L		nd		0.50	SW 846 - Method 8021	RWD
Carbon Tetrachloride	0.01	mg/L		nd		0.50	SW 846 - Method 8021	RWD
Chlorobenzene	0.01	mg/L		nd		100	SW 846 - Method 8021	RWD
Chloroform	0.01	mg/L		nd		6.0	SW846 - Method 8021	RWD
1,4-Dichlorobenzene	0.01	mg/L		nd		7.5	SW846- Meth. 8021	RWD
1,2-Dichloroethane	0.01	mg/L		nd		0.50	SW 846 - Method 8021	RWD
1,1-Dichloroethylene	0.01	mg/L		nd		0.70	SW 846 - Method 8021	RWD
Tetrachloroethylene	0.01	mg/L		nd		0.70	SW846 - Method 8021	RWD
Trichloroethylene	0.01	mg/L		nd		0.50	SW846- Meth. 8021	RWD
Vinyl Chloride	0.05	mg/L		nd		0.20	SW846- Meth. 8021	RWD
Surrogate Standard Recovery		%		94				

APPROVED BY _____
Romulo F. Aquino, Laboratory Manager

nd = Not detectable at or above the MDL
MDL = Method detection limit

TETRA TECH MPS

LABORATORY REPORT

CLIENT: GeoTrans Inc. - Campbell Soup
SAMPLE MATRIX: TCLP Soil
ATTN: Craig Savage
REPORT DATE: 08/30/2002 **COC # 00961**

CLIENT ID:				PB-02-28 (3-6 feet) TCLP				
SAMPLE DATE:				08/27/02				
LAB ID:				020827004				
PARAMETER	MDL	UNITS			Date Analyzed	RCRA Regulatory Level (mg/L)	METHOD	ANALYST
o- Cresol	20	mg/L		nd	08/30/02	200	SW 846 - Method 8270C	PL/SPC
m- Cresol	20	mg/L		nd	08/30/02	200	SW 846 - Method 8270C	PL/SPC
p-Cresol	20	mg/L		nd	08/30/02	200	SW 846 - Method 8270C	PL/SPC
1,4-Dichlorobenzene	0.75	mg/L		nd	08/30/02	7.5	SW 846 - Method 8270C	PL/SPC
2,4-Dinitrotoluene	0.1	mg/L		nd	08/30/02	0.13	SW 846 - Method 8270C	PL/SPC
Hexachlorobenzene	0.1	mg/L		nd	08/30/02	0.13	SW 846 - Method 8270C	PL/SPC
Hexachlorobutadiene	0.1	mg/L		nd	08/30/02	0.50	SW 846 - Method 8270C	PL/SPC
Hexachloroethane	0.3	mg/L		nd	08/30/02	3.0	SW 846 - Method 8270C	PL/SPC
Nitrobenzene	0.2	mg/L		nd	08/30/02	2.0	SW 846 - Method 8270C	PL/SPC
Pentachlorophenol	10	mg/L		nd	08/30/02	100	SW 846 - Method 8270C	PL/SPC
Pyridine	0.5	mg/L		nd	08/30/02	5.0	SW 846 - Method 8270C	PL/SPC
2,4,5-Trichlorophenol	40	mg/L		nd	08/30/02	400	SW 846 - Method 8270C	PL/SPC
2,4,6-Trichlorophenol	0.2	mg/L		nd	08/30/02	2.0	SW 846 - Method 8270C	PL/SPC

APPROVED BY _____
Romulo F. Aquino, Laboratory Manager

nd = Not detectable at or above the MDL
MDL = Method detection limit

TETRA TECH MPS

LABORATORY REPORT

CLIENT: GeoTrans Inc. - Campbell Soup
SAMPLE MATRIX: TCLP - Soil
ATTN: Craig Savage
REPORT DATE: 08/30/2002 **COC # 00961**

CLIENT ID:				PB-02-28 (3-6 feet) TCLP				
SAMPLE DATE:				08/27/02				
LAB ID:				020827004				
PARAMETER	MDL	UNITS			Date Analyzed	RCRA Regulatory Level (mg/L)	METHOD	ANALYST
TCLP Metals							SW 846 Various	
Arsenic	0.10	mg/L		nd	08/30/02	5.0	EPA 6020	PL/DTM
Barium	0.10	mg/L		1.8	08/30/02	100	EPA 6020	PL/DTM
Cadmium	0.10	mg/L		nd	08/30/02	1.0	EPA 6020	PL/DTM
Chromium	0.50	mg/L		nd	08/30/02	5.0	EPA 6020	PL/DTM
Lead	0.50	mg/L		nd	08/30/02	5.0	EPA 6020	PL/DTM
Mercury	0.05	mg/L		nd	08/30/02	0.2	EPA 7470A	PL/DTM
Selenium	0.50	mg/L		nd	08/30/02	1.0	EPA 6020	PL/DTM
Silver	0.50	mg/L		nd	08/30/02	5.0	EPA 6020	PL/DTM

APPROVED BY: _____
Romulo F. Aquino, Laboratory Manager

nd = Not detectable at or above the MDL
MDL = Method detection limit

TETRA TECH MPS

LABORATORY REPORT

CLIENT: GeoTrans Inc. - Campbell Soup
SAMPLE MATRIX: Soil
ATTN: Craig Savage
REPORT DATE: 08/30/2002 **COC # 00961**
ANALYSIS DATE: 08/28/2002

CLIENT ID:				PB-02-28 (3-6 feet) TCLP				
SAMPLE DATE:				08/27/02				
LAB ID:				020827004				
PARAMETER	MDL	UNITS			Date Analyzed	RCRA Regulatory Level	METHOD	ANALYST
Corrosivity as pH	---	s.u.		7.50	08/27/02	pH < 2.0 or > 12.5	SW-846, 9045B	RWD
Ignitability	---	^{0}C		>60^{0}C	08/29/02	Flashpoint at <60^{0}C	SW-846 1010	RWD
Reactivity								
Cyanide	0.50	mg/Kg		nd	08/29/02	250 mg/Kg	SW 846-Chapter 7, EPA 335.4	PL/DTM
Sulfide	5.0	mg/Kg		nd	08/29/02	500 mg/Kg	SW 846-Chap. 7, SM 4500 S2-D	PL/DTM

APPROVED BY: _____
Romulo F. Aquino, Laboratory Manager

nd = Not detectable at or above the MDL
MDL = Method detection limit

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 00961

CLIENT: GEOTRANS

PHONE NO.:

ADDRESS:

SAMPLE:

PROJECT NO.:

PROJECT NAME: CAMPBELL SOUP

CLIENT CONTACT: CRAIG SAVAGE

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TCLP	REMARKS
1		8-27-02	16:00	X		PB-02-28 (3-6')	2	X	see Tesha for details on analysis
2									
3									020827004
4									
5									
6									
7									
8									
9									
10									

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1		[signature]	[signature]	8-27-02	16:15
2					
3					
4					

REMARKS: Subbed SVOC Metals Reactivity } Paragon Lab

[signature]

SAMPLER'S SIGNATURE:

Henry County
Campbell's Soup General

GeoTrans, Inc.
A TETRA TECH COMPANY

LETTER OF TRANSMITTAL

710 Avis Drive, Ann Arbor, MI 48108 □ (734)213-2204 □ (734)213-5008 (FAX)

RECEIVED
SEP 03 2002
OHIO E.P.A
N.W.D.O.

TO: Mr. James Moseley
Ohio EPA - NWDO
347 North Dunbrigde Drive
Bowling Green, OH 43402

DATE: 8/29/2002
RE: Campbell Soup, Napoleon, OH
PROJ. NO. P896

We are sending you the following:

No. of Copies	Description
1	Health and Safety Plan

These are Transmitted as checked below:

- ☐ For approval
- ☑ For your use
- ☐ As requested
- ☐ For review and comment
- ☐ Approved as submitted
- ☐ Approved as noted
- ☐ Returned for corrections
- ☐ Other

Per Modification #5 to the RCRA Site Closure Plan enclosed is copy of the site health and safety plan for the soil rememdiation planned at the Napoleon facility. At this time we are obtaining quotations from contractors for the remediation work. In accordance with the Closure Plan we will formally notify you five days prior to initiating any field activities.

Tesha Yielding

Signed: Tesha Yielding

cc: Dr. Aly, Campbell Soup

Transmitted by:
- ☑ First Class Mail
- ☐ Federal Express
- ☐ Courier
- ☐ Registered Mail
- ☐ UPS
- ☐ Other

Henry County / Campbell's Soup General

RECEIVED

AUG 26 2002

OHIO E.P.A. N.W.D.O

GeoTrans, Inc.
A TETRA TECH COMPANY

LETTER OF TRANSMITTAL

710 Avis Drive, Ann Arbor, MI 48108 □ (734)213-2204 □ (734)213-5008 (FAX)

TO: Mr. James Moseley
Ohio EPA - NWDO
347 North Dunbrigde Drive
Bowling Green, OH 43402

DATE: 8/21/2002
RE: Campbell Soup, Napoleon, OH
PROJ. NO. P896.104

We are sending you the following:

No. of Copies	Description
1	Laboratory Report - Hazardous Characterization
1	Chain of Custody

These are Transmitted as checked below:

- ☐ For approval
- ☑ For your use
- ☐ As requested
- ☐ For review and comment
- ☐ Approved as submitted
- ☐ Approved as noted
- ☐ Returned for corrections
- ☐ Other

Per Section 8 (Schedule) of the approved RCRA Closure Plan we are submitting the analytical results from the Waste Characterization that was completed in accordance with Section 14.4 of the Closure Plan. Samples were collected from PB-01-32, PB-01-34 and PB-01 on May 29, 2002, using a hand auger. Due to hand auger refusal we were unable to collect the waste characterization sample from PB-01-28. The analytical results from PB-01-32, PB-01-34 and PB-01 are attached, showing the soils at the site are non-hazardous. We will collect the final Waste Characterization Sample on 8/26/02 using a GeoProbe. We will submit the analytical results of the final waste characterization sample at a later date.

Tesha Yielding

Signed: Tesha Yielding

cc: Dr. Aly, Campbell Soup

Transmitted by:

- ☑ First Class Mail
- ☐ Federal Express
- ☐ Courier
- ☐ Registered Mail
- ☐ UPS
- ☐

TETRA TECH MPS

LABORATORY REPORT

CLIENT: GeoTrans Inc. - Campbell Soup

SAMPLE MATRIX: TCLP/ZHE- Soil

ATTN: Craig Savage

REPORT DATE: 06/14/2002 **COC # 00201**

ANALYSIS DATE: 06/05-06/2002

CLIENT ID:			PB-01-34 TCLP	PB-01-32 TCLP	PB-01 TCLP			
SAMPLE DATE:			5/29/02	5/29/02	5/29/02			
LAB ID:			020530008	020530009	020530010			
PARAMETER	MDL	UNITS				RCRA Regulatory Level (mg/L)	METHOD	ANALYST
Methyl Ethyl Ketone (MEK)	0.05	mg/L	nd	nd	nd	200	SW 846 - Method 8021	RWD
Benzene	0.01	mg/L	nd	nd	nd	0.50	SW 846 - Method 8021	RWD
Carbon Tetrachloride	0.01	mg/L	nd	nd	nd	0.50	SW 846 - Method 8021	RWD
Chlorobenzene	0.01	mg/L	nd	nd	nd	100	SW 846 - Method 8021	RWD
Chloroform	0.01	mg/L	nd	nd	nd	6.0	SW846 - Method 8021	RWD
1,4-Dichlorobenzene	0.01	mg/L	nd	nd	nd	7.5	SW846- Meth. 8021	RWD
1,2-Dichloroethane	0.01	mg/L	nd	nd	nd	0.50	SW 846 - Method 8021	RWD
1,1-Dichloroethylene	0.01	mg/L	nd	nd	nd	0.70	SW 846 - Method 8021	RWD
Tetrachloroethylene	0.01	mg/L	nd	nd	nd	0.70	SW846 - Method 8021	RWD
Trichloroethylene	0.01	mg/L	nd	nd	nd	0.50	SW846- Meth. 8021	RWD
Vinyl Chloride	0.01	mg/L	nd	nd	nd	0.20	SW846- Meth. 8021	RWD
Surrogate Standard Recovery		%	87	114	100			

**Toluene, ethylbenzene and xylenes were detected in sample PB-01-32 -Lab # 020530009

APPROVED BY _____
Romulo F. Aquino, Laboratory Manager

nd = Not detectable at or above the MDL
MDL = Method detection limit

TETRA TECH MPS

LABORATORY REPORT

CLIENT: GeoTrans Inc. - Campbell Soup

SAMPLE MATRIX: TCLP Soil

ATTN: Craig Savage

REPORT DATE: 06/14/2002 **COC # 00201**

ANALYSIS DATE: 06/13/02

CLIENT ID:			PB-01-34 TCLP	PB-01-32 TCLP	PB-01 TCLP			
SAMPLE DATE:			5/29/02	5/29/02	5/29/02			
LAB ID:			020530008	020530009	020530010			
PARAMETER	MDL	UNITS				RCRA Regulatory Level (mg/L)	METHOD	ANALYST
o- Cresol	0.1	mg/L	nd	nd	nd	200	SW 846 - Method 8270	TAL
m- Cresol	0.1	mg/L	nd	nd	nd	200	SW 846 - Method 8270	TAL
p-Cresol	0.1	mg/L	nd	nd	nd	200	SW 846 - Method 8270	TAL
1,4-Dichlorobenzene	0.1	mg/L	nd	nd	nd	7.5	SW 846 - Method 8270	TAL
2,4-Dinitrotoluene	0.1	mg/L	nd	nd	nd	0.13	SW 846 - Method 8270	TAL
Hexachlorobenzene	0.1	mg/L	nd	nd	nd	0.13	SW 846 - Method 8270	TAL
Hexachlorobutadiene	0.1	mg/L	nd	nd	nd	0.50	SW 846 - Method 8270	TAL
Hexachloroethane	0.1	mg/L	nd	nd	nd	3.0	SW 846 - Method 8270	TAL
Nitrobenzene	0.1	mg/L	nd	nd	nd	2.0	SW 846 - Method 8270	TAL
Pentachlorophenol	0.1	mg/L	nd	nd	nd	100	SW 846 - Method 8270	TAL
Pyridine	0.1	mg/L	nd	nd	nd	5.0	SW 846 - Method 8270	TAL
2,4,5-Trichlorophenol	0.1	mg/L	nd	nd	nd	400	SW 846 - Method 8270	TAL
2,4,6-Trichlorophenol	0.1	mg/L	nd	nd	nd	2.0	SW 846 - Method 8270	TAL

APPROVED BY _____
Romulo F. Aquino, Laboratory Manager

nd = Not detectable at or above the MDL
MDL = Method detection limit

TETRA TECH MPS

LABORATORY REPORT

CLIENT: GeoTrans Inc. - Campbell Soup
SAMPLE MATRIX: TCLP - Soil
ATTN: Craig Savage
REPORT DATE: 06/28/02 **COC # 00201**

CLIENT ID:			PB-01-34 TCLP	PB-01-32 TCLP	PB-01 TCLP			
SAMPLE DATE:			5/29/02	5/29/02	5/29/02			
LAB ID:			020530008	020530009	020530010			
PARAMETER	MDL	UNITS				RCRA Regulatory Level	METHOD	ANALYST
TCLP Metals								
Arsenic	0.001	mg/L	0.039	0.013	0.002	5.0	SW-846-Method 7061	BM
Barium	0.10	mg/L	0.94	0.64	0.72	100	SW-846-Method 7080	BM
Cadmium	0.01	mg/L	0.014	nd	nd	1.0	SW-846-Method 7131	BM
Chromium	0.01	mg/L	0.037	nd	nd	5.0	SW-846-Method 7191	BM
Lead	0.01	mg/L	2.2	0.07	0.011	5.0	SW-846-Method 7421	BM
Mercury	0.01	mg/L	nd	nd	nd	0.2	SW-846-Method 7471	BM
Selenium	0.01	mg/L	nd	nd	nd	1.0	SW-846-Method 7470	BM
Silver	0.01	mg/L	nd	nd	nd	5.0	SW-846-Method 7761	BM

APPROVED BY _____
Romulo F. Aquino, Laboratory Manager

nd = Not detectable at or above the MDL
MDL = Method detection limit

TETRA TECH MPS

LABORATORY REPORT

CLIENT: GeoTrans Inc. - Campbell Soup
SAMPLE MATRIX: Soil
ATTN: Craig Savage
REPORT DATE: 06/14/2002 **COC # 00201**
ANALYSIS DATE: 06/11/2002

CLIENT ID:			PB-01-34 TCLP	PB-01-32 TCLP	PB-01 TCLP			
SAMPLE DATE:			5/29/02	5/29/02	5/29/02			
LAB ID:			020530008	020530009	020530010			
PARAMETER	MDL	UNITS				RCRA Regulatory Level	METHOD	ANALYST
Corrosivity as pH	---	s.u.	8.4	8.5	8.8	pH < 2.0 or > 12.5	SW-846, 9045B	RWD
Ignitability	---	^{0}C	>60^{0}C	>60^{0}C	>60^{0}C	Flashpoint at <60^{0}C	SW-846 1010	RWD
Reactivity								
Cyanide	0.50	mg/Kg	nd	nd	nd	250	SW 846-Chapter 7, 9012	TAL
Sulfide	5.0	mg/Kg	nd	7.6	nd	500	SW 846-Chapter 7, 376.2	TAL

APPROVED BY _____
Romulo F. Aquino, Laboratory Manager

nd = Not detectable at or above the MDL
MDL = Method detection limit

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 00201

CLIENT: Campbell Soup-
PHONE NO.:
ADDRESS:
SAMPLE:
PROJECT NO.: GeoTrans
PROJECT NAME:
CLIENT CONTACT: Craig Savage

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): TCLP - VOCs; TCLP - SVOCs; Corrosivity; Ignitability; Reactivity (Sulfide/Cyanide); RCRA - metals

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TCLP - VOCs	TCLP - SVOCs	Corrosivity	Ignitability	Reactivity (Sulfide/Cyanide)	RCRA - metals			REMARKS
1	PB-01-34 TCLP	5/29/02	1 pm	X		Soil	2	X	X	X	X	X	X			~~02050~~ 020530008
2	PB-01-32 TCLP	5/29/02	3:40 p	X		Soil	2	X	X	X	X	X	X			530009
3	PB-01 TCLP	5/29/02	4:30 p	X		Soil	2	X	X	X	X	X	X			530010
4																
5																
6																
7																
8																
9																
10																

→ added 6/10/02 Craig Savage

→ added 6/12/02 Craig Savage

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-3	Tesha Yielding	[signature]	5/30/02	
2					
3					
4					

REMARKS: Hold TCLP extract for possible future analysis

SAMPLER'S SIGNATURE: Tesha Yielding

Henry County
Campbell > Soup Genera

GeoTrans, Inc.
A TETRA TECH COMPANY

LETTER OF TRANSMITTAL

710 Avis Drive, Ann Arbor, MI 48108 □ (734)213-2204 □ (734)213-5008 (FAX)

RECEIVED
AUG 19 2002
OHIO E.P.A.
N.W.D.O.

TO: Mr. James Moseley
Ohio EPA - NWDO
347 North Dunbrigde Drive
Bowling Green, OH 43402

DATE: 8/14/2002
RE: Campbell Soup, Napoleon, OH
PROJ. NO. P896

We are sending you the following:

No. of Copies	Description
1	Health and Safety Plan

These are Transmitted as checked below:

- ☐ For approval
- ☑ For your use
- ☐ As requested
- ☐ For review and comment
- ☐ Approved as submitted
- ☐ Approved as noted
- ☐ Returned for corrections
- ☐ Other

Per Modification #5 to the RCRA Site Closure Plan enclosed is copy of the site health and safety plan for the additional site characterization activities. We have tentatively scheduled drilling for the week of August 26th. In accordance with the Closure Plan we will formally notify you five days prior to initiating any field activities. We will submit a second health and safety plan for the remediation field work at a later date. Please call me at (734) 213 - 4068 with any questions.

Tesha Yielding

Signed: Tesha Yielding

cc: Dr. Aly, Campbell Soup (no attachment)

Transmitted by:

- ☑ First Class Mail
- ☐ Federal Express
- ☐ Courier
- ☐ Registered Mail
- ☐ UPS
- ☐ Other

Henry County
Campbell's Soup General

FORM HSP-3

GeoTrans, Inc.

LIMITED SCALE SITE

HEALTH AND SAFETY PLAN

RECEIVED
AUG 19 2002
OHIO E.P.A.
N.W.D.O.

1.0 GENERAL INFORMATION

Site/Location: Campbell Soup Company, Napoleon, Ohio Project #: P896

Plan Prepared by: Michelle Racz Date: 8/13/02

Hazard Assessment Prepared by: * Michelle Racz Date: 8/13/02

* I certify that I have assessed the type, risk level and severity of hazards for this project and have selected appropriate personal protective equipment for site personnel.

Plan Reviewed by: Joe Essichick Date: 8/13/02

Activity(s): Advancement of eleven geoprobe borings outside former holding pit area. Ten borings will be advanced to a maximum depth of twenty feet below surface grade (bsg). Three of these borings will be completed as permanent 2" monitoring wells. Soil and groundwater samples will be collected. One boring will be advanced to approximately 6 feet bsg and soils collected for waste characterization.

Dates of work: August 20-30, 2002

GeoTrans personnel:	Signature
Michael Kovacich	
Kate Van Fleet	
Michelle Racz	

Description of Site: (include map if possible)

The Napoleon Plant is situated along the south floodplain of the Maumee River in Napoleon, Ohio. The general site topography is flat, however the former folding pits were constructed on an elevated mound of fill dirt, approximately 15 – 20 feet higher than natural grade. Unpaved road access to the holding pit area site is from the southeast. The mound is relatively flat on the surface and drops off abruptly to the east, north and west. The former holding pits were removed, regraded, and covered with approximately 4 feet of new fill in 1983.

Types of hazardous material:

Soils and groundwater may be impacted with volatile and/or semi-volatile organic compound contamination. See attached Table for Potential Chemical Hazards at the site.

Major safety/health hazards/risks: (contamination, equipment, fire etc.)

Hazards include:

- Injury from trip and fall
- Injury from moving equipment and machinery
- Loud noise

- Encountering buried utilities-electrocution
- Heat stress
- Insect bites
- Poison Ivy

See attached Table for task hazard analysis and controls

---

* Safety coordinator/emergency coordinator-Site Safety co-ordinator is Mike Kovacich

** Designated First-Aid provider-All GeoTrans employees on-site are training in providing First Aid

2.0 SAFETY PLAN

Protective Equipment/Instruments (specify type, as necessary)

Hard hat:	X	Boots:	X	Glasses (type):	X
Suits:		Respirator:	X	First aid kit:	X
PID:	X	CGI:		Hearing Protectors:	X

Safety Equipment Levels/Upgrades: Level D

Monitoring Requirements: Monitoring of ambient air with PID. If site conditions or results of the air monitoring performed during on-site activities warrant a higher level of protection, all field personnel will withdraw from the site , immediately contact the site safety coordinator and wait for further instructions. Attached table lists site-specific air monitoring requirements and action levels.

Decontamination/Work Zone Requirements: Remove PPE and decontaminate sampling equipment using soap and water rinse before leaving work area.

3.0 EMERGENCY PLANNING

Emergency Phone Numbers

Hospital/Emergency Clinic: Henry County Hospital Address: 11600 State Route 424, Napoleon, Ohio. Phone number : (419) 592-4015 (general and emergency)

Note: Map of route to hospital must be attached.

Fire Department: 911

Police: 911

GeoTrans Contact (PM or H&S officer): Joe Esseichick (734) 213-4057 or Craig Savage (734) 213-5042

Contractors: GeoServ, Inc.

4.0 ATTACHMENTS

____ Site Maps	X Heat Stress
____ Site Standard Safety Operating Procedures	____ Cold Stress
X Route to Hospital	X Drill Rig Safety Procedures
X Chemical Hazard Information	____ UST Removal Safety Checklists
____ Site Safety Plan Acknowledgment Form	____ Trenching Procedures
X Level C & D Modified Decon Procedures	X Tailgate Safety Mtgs

POTENTIAL CHEMICAL HAZARDS
FORMER HOLDING PIT SITE

Chemical and Description	Exposure Limits and IDLH Level	Exposure Routes	Toxic Characteristics
Acetone - liquid, identified in soil	OSHA PEL - 1000 ppm IDLH - 2500 ppm	Inhalation Ingestion Skin and eye contact	Irritation to eyes, nose, throat; headache, dizziness, CNS depression; dermatitus and eye irritation
2-Butanone (MEK) - liquid, identified in soil	OSHA PEL - 299 ppm IDLH - 1700 ppm	Inhalation Ingestion Skin and eye contact	Irritation to eyes and nose; headache, dizziness, vomiting; skin irritation
1,4-Dichlorobenzene - crystaline solid, identified in soil	OSHA PEL - 75 ppm IDLH - 150 ppm (CA)	Inhalation Dermal absorption Ingestion Skin contact	Irritation to eyes and nose; liver and kidney damage;skin blisters
Ethylbenzene - liquid, identified in soil	OSHA PEL - 100 ppm IDLH - 800 ppm	Inhalation Ingestion Skin and eye contact	Irritation to eyes, skin & mucus membranes; headache; dermatitus; norcosis; coma
Hexone (MIBK) - liquid, identified in soil	OSHA PEL - 100 ppm IDLH - 500 ppm	Inhalation Ingestion Skin/eye contact	Iriitation to eyes, skin , mucus membrane; headache, narcosis, coma; dermatitus; liver and kidney damage in animals
Naphthalene - solid, identified in soil	OSHA PEL - 10 ppm IDLH - 250 ppm	Inhalation Dermal absorption Ingestion Sin and eye contact	Irritation to eyes; headache, confusion, excitement, malaise, nausea, vomiting, abdominal pain; irritation of the bladder; profuse sweating; jaundice; hematuria, hemoglobiurea, renal shutdown; dermatitus; optical neuritus, corneal damage

Toluene - liquid, identified in soil	OSHA PEL - 200 ppm IDLH - 500 ppm	Inhalation Dermal absorption Ingestion Skin and eye contact	Irritation to eyes, nose; fatigue, weakness, confusion, euphoria, dizziness, headache; dilated pupils, lacrimation; nervousness, muscle fatigue, insomnia; paresthesia; dermatitus; liver and kidney damage
Xylenes - liquid, identified in soil	OSHA PEL - 100 ppm IDLH - 900 ppm	Inhalation Skin absorption Ingestion Skin & eye contact	Irritation to eyes, skin nose, throat; dizziness, excitement, drowsiness, incoherence, staggering gait; corneal vacuolization; anorexia, nausea, vomiting, abdominal pain; dermatitus
Other alcohols, ethers, ketones, and formaldehyde have not been detected but are potentially present in the source material	Various exposure limits	Various exposure routes	Various acute and chronic symptoms

Notes:

IDLH	Immediately dangerous to life or health
OSHA	Occupational Health and Safety Administration
PEL	Permissible exposure limit
ppm	Part per million

SITE-SPECIFIC AIR MONITORING REQUIREMENTS AND ACTION LEVELS

Contaminant or Hazard	Activity	Monitoring Device	Frequency	Action Level	Action
Organic Vapors	Soil sampling Excavation	PID	Every 30 to 60 minutes	Background to 5 ppm	Use Level D or Modified Level D PPE
			Every 30 minutes	5 to 100 ppm	Use Level C PPE (unless specific chemicals are identified and evaluated using detector tube)
			NA	> 100 ppm	Stop work and evacuate area; implement vapor suppression controls. Notify SSC

Notes:

NA	Not applicable
PID	Photoionization detector
PPE	Personal protective equipment
ppm	Part per million
SSC	Site safety coordinator

TASK HAZARD ANALYSIS
FORMER HOLDING PIT SITE

Task or Activity	Potential Hazard	Controls	Initial Level of Protection	Upgraded Level of Protection
Soil Borings/soil sample collection	Potential hazards include chemical and physical hazards.	Use of ear plugs, surveys for buried and overhead utilities, limiting access to work area, protective clothing and footware, ambient air monitoring.	Modified_ Level_D	Level C or evacuation depending on concentration (See Table 8.1)

Y! Domains:
All yours for $35



Lose 20 lbs by July 16th!

Welcome, Guest User

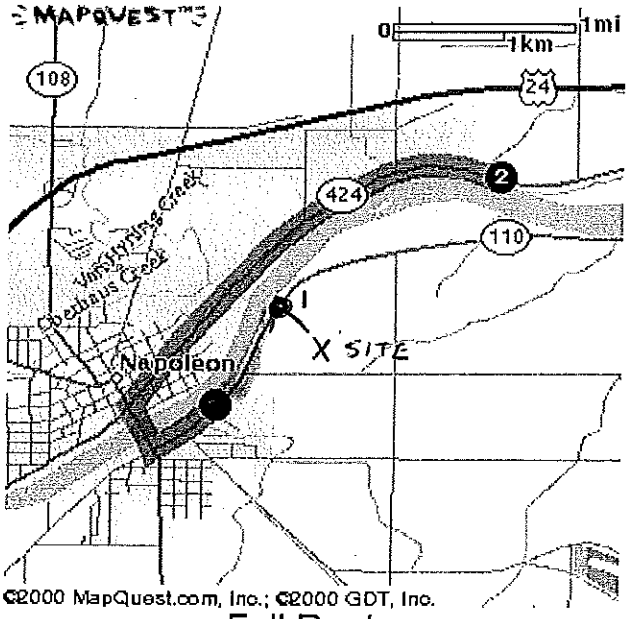
Yahoo! Yellow Pages

Starting from: E. Maumee Avenue, Napoleon, OH 43545

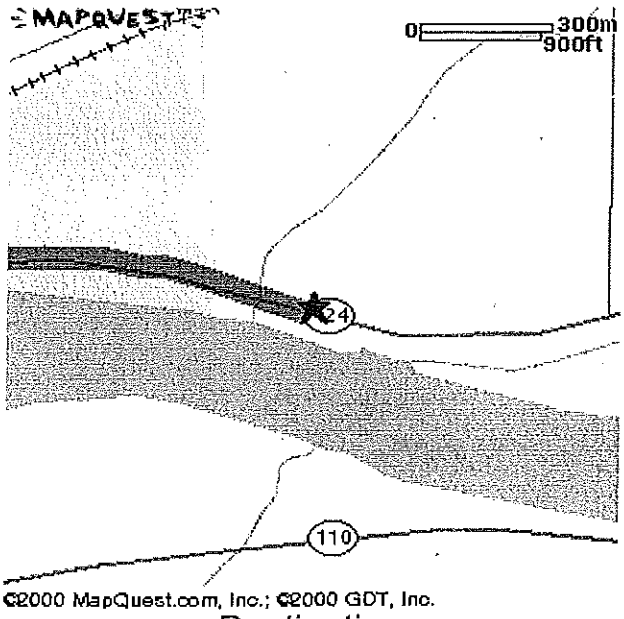
Arriving at: ★Henry County Hospital
11600 State Route 424, Napoleon, OH 43545
(419) 592-4015

Distance: 3.4 miles **Approximate Travel Time:** 6 mins

Email Directions
Get Reverse Directions
Text Only Driving Direction



Full Route



Destination

	Directions	Miles
1.	Start out going Southwest on **OH-110** by turning left.	~~0.4~~ 1.0
2.	Turn RIGHT onto **OH-110/OH-108**.	0.3
3.	Turn RIGHT onto **OH-424**.	2.6

When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used a an aid in planning.

GeoTrans, Inc.

Form HST-2
Daily Tailgate Safety Meeting Form

Date: _____ Time: _____ Job Number: _____
Client: _____ Site Location: _____
Scope of Work: _____

Safety Topics Presented

Planned Field Activities for the Day: _____

Protective Clothing / Equipment: _____

Chemical Hazards: _____

Physical Hazards: _____

Special Equipment: _____

Decontamination Procedures: _____

Other: _____

Emergency Procedures: _____

Hospital: _____ Phone: _____ Ambulance Phone: _____
Hospital Address and Route: _____
Employee Questions / Comments: _____

Attendees

Name (Printed)	Signature

Meeting Conducted By:

Name (Printed) / Signature — Name (Printed) / Signature

Site Safety Coordinator — Project Manager

GeoTrans, Inc.

Form HST-2
Daily Tailgate Safety Meeting Form

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Emergency Procedures: _____

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Attendees

Name (Printed)	Signature

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Name (Printed) / Signature — Name (Printed) / Signature

Site Safety Coordinator — Project Manager

GeoTrans, Inc.

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Hospital Address and Route: _____
Employee Questions / Comments: _____

Attendees

Name (Printed)	Signature

Meeting Conducted By:

Name (Printed) / Signature — Name (Printed) / Signature

Site Safety Coordinator — Project Manager

GeoTrans, Inc.

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Physical Hazards: _____

Special Equipment: _____

Decontamination Procedures: _____

Other: _____

Emergency Procedures: _____

Hospital: _____ Phone: _____ Ambulance Phone: _____
Hospital Address and Route: _____
Employee Questions / Comments: _____

Attendees

Name (Printed)	Signature

Meeting Conducted By:

Name (Printed) / Signature — Name (Printed) / Signature

Site Safety Coordinator — Project Manager

TETRA TECH, INC.
HEALTH AND SAFETY MANUAL
VOLUME III

SAFE WORK PRACTICES (SWP)

SAFE DRILLING PRACTICES

SWP NO.: 6-3

ISSUE DATE: JULY 1998

REVISION NO.: 1

Disclaimer: This safe work practice (SWP) is the property of Tetra Tech, Inc. (Tetra Tech), and its subsidiaries. Any reuse of the SWP without Tetra Tech's permission is at the sole risk of the user. The user will hold harmless Tetra Tech for any damages that result from unauthorized reuse of this SWP. Authorized users are responsible for obtaining proper training and qualification from their employer before performing operations described in this SWP.

SAFE DRILLING PRACTICES

This document establishes safe work practices (SWP) to follow during drilling operations. These SWPs are based on suggested safety procedures provided in the National Drilling Association's "Drilling Safety Guide." Procedures to follow before, during, and after drilling are listed below.

Before beginning any drill operation, each employee must be aware of the following:

- Wear a hard hat, safety glasses or goggles, steel-toed work boots, a shirt and full-length pants when working with or near the drill rig. Shirts must be tucked in at the belt.
- Do not wear loose or frayed clothing, loose long hair, or loose jewelry while working with rotating equipment.
- Do not eat, drink, or smoke near the drill rig.
- Identify all underground utility and buried structure locations before drilling.
- Ensure that the drill rig and any other machinery used is inspected daily by competent, qualified individuals. The site safety coordinator (SSC) will ensure compliance with this precaution.
- Drill rig operators will be instructed to report any abnormalities, such as equipment failure, oozing liquids, and unusual odors, to their supervisors or the SSC.
- Establish hand-signal communications for use when verbal communication is difficult. One person per work team will be designated to give hand signals to equipment operators.

While the drill rig is operating, employees should be aware of the following:

- Wear appropriate respiratory and personal protective equipment (PPE) when conditions warrant their use.
- Avoid direct contact with known or suspected contaminated surfaces.
- Move tools, materials, cords, hoses, and debris to prevent tripping hazards and contact with moving drill rig parts.
- Adequately secure tools, materials, and equipment subject to displacement or falling.
- Store flammable materials away from ignition sources and in approved containers.

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- Maintain adequate clearance of the drill rig and mast from overhead transmission lines. The minimum clearance is 25 feet unless special permission is granted by the utility company. Call the local utility company for proper clearance.
- Only qualified and licensed personnel should operate drill rigs.
- Workers should not assume that the drill rig operator is keeping track of their exact location. Workers should never walk directly behind or beside heavy equipment without the operator's knowledge.
- Workers should maintain visual contact with drill rig operators at all times.
- When an operator must maneuver equipment in tight quarters, the presence of a second person is required to ensure adequate clearance. If much backing is required, two ground guides will be used: one in the direction the equipment is moving, and the other in the operator's normal field of vision to relay signals.
- Auger sections and other equipment are extremely heavy. All lifting precautions should be taken before moving heavy equipment. Appropriate equipment, such as chains, hoists, straps, and other equipment, should be used to safely transport heavy equipment too heavy to safely lift.
- Proper personal lifting techniques will be used. Workers should lift using their legs, not their backs.
- Workers will not use equipment they are not familiar with. This precaution applies to heavy as well as light equipment.
- All personnel not essential to work activities will be kept out of the work area.
- Workers will be aware of their footing at all times.
- Workers will remain alert at all times.

After drilling operations are completed, employees should do the following:

- Shut down machinery before repairing or lubricating parts (except parts that must be in motion for lubrication).
- Shut down mechanical equipment prior to and during fueling operations. When refueling or transferring fuel, containers and equipment must be bonded to prevent the buildup of static electricity.
- Keep drill rigs in the exclusion zone until work has been completed. Such equipment should then be decontaminated within the designated decontamination area.

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TABLE 2

SUGGESTED GUIDELINES WHEN WEARING PPE

Ambient Temperature	Maximum PPE Wearing Time per Excursion
Above 90 °F	15 minutes
85 to 90 °F	30 minutes
80 to 85 °F	60 minutes
70 to 80 °F	90 minutes
60 to 70 °F	120 minutes
50 to 60 °F	180 minutes

Source: National Institute for Occupational Safety and Health (NIOSH). 1985. Memorandum Regarding Recommended Personal Protective Equipment Wearing Times at Different Temperatures. From Austin Henschel. To Sheldon Rabinovitz. June 20.

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To monitor the level of an employee's heat stress, the following should be measured:

- Heart Rate: Count the radial (wrist) pulse during a 30-second period as early as possible in the rest period; if heart rate exceeds 110 beats per minute at the beginning of the rest period, shorten the next work cycle by one-third and keep the rest period the same.

  If the heart rate still exceeds 110 beats per minute at the next period, shorten the following work cycle by one-third.

- Oral Temperature: Use a clinical thermometer (3 minutes under the tongue) to measure the oral temperature at the end of the work period. If oral temperature exceeds 99.6 °F (37.6 °C), shorten the next work cycle by one-third without changing the rest period. If oral temperature still exceeds 99.6 °F at the beginning of the next rest period, shorten the following work cycle by one-third. Do not permit a worker to wear impermeable PPE when his or her oral temperature exceeds 100.6 °F (38.1 °C).

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Henry County
Campbell's Soup
General

Campbell SOUP Company

Osman M. Aly, Ph.D.
Consultant

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Telephone: 856-968-4423
FAX # 856-968-2808/2809

August 1, 2002

Via Airborne Express

RECEIVED
AUG 02 2002
OHIO E.P.A.
N.W.D.O.

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
ATTN: DHWM Manager/Mr. James Moseley
347 North Dunbridge Road
Bowling Green, OH 43402

And

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste management
ATTN: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

RE: Amendments to Director's Final Finding and Orders, October 18, 2000
Campbell Soup Supply Company, L.L.C.
Campbell Soup Company
Financial Assurance for Facility Closure – Additional Documents

Gentlemen:

This is a follow-up to our letter dated July 18, 2002, which contained a Standby Trust Agreement for Closure and for Post Closure Care of the Facility. Enclosed please find the remainder of financial assurance documents consisting of:

1. Irrevocable Standby Letter of Credit No. P-226893 for closure or post closure care.

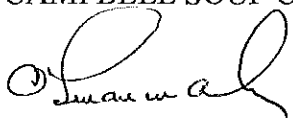
2. Standby Trust Agreement for Bodily Injury and Property Damage.

3. Irrevocable Standby Letter of Credit No. P-226892 for the Bodily Injury and Property Damage.

Please give me a call at (856) 968-4423 if you need any additional information.

Sincerely,

CAMPBELL SOUP COMPANY



Osman M. Aly, Ph.D.
Consultant

OMA/lgm
Attachment*

cc: F. Greenfield*
M. Maringer
M. Migliaccio*
R. Shober
C. del Sol

JPMorganChase Bank
Global Trade Services

JPMorgan

ISSUE DATE: JULY 18, 2002
L/ NO.: P-226893

Advising Bank
********** DIRECT **********

APPLICANT:
CAMPBELL SOUP CO
CAMPBELL PLACE
CAMDEN, N. J. 08103

Beneficiary
MAIL TO
OHIO ENVIRONMENTAL PROTECTION
AGENCY
(SEE BELOW FOR FULL ADDRESS)

AMOUNT: USD 2,000,000.00
(TWO MILLION AND 00/100
UNITED STATES DOLLARS)

BENEFICIARY'S FULL ADDRESS:
OHIO ENVIRONMENTAL PROTECTION AGENCY
NORTWEST DISTRICT OFFICE
DIVISION OF HAZARDOUS WASTE MANAGEMENT
347 NORTH DUNBRIDGE ROAD
BOWLING GREEN, OH 43402

IRREVOCABLE STANDBY LETTER OF CREDIT

CHRISTOPHER JONES, DIRECTOR
OHIO ENVIRONMENTAL PROTECTION AGENCY

DEAR SIR OR MADAM:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. P-226893 IN THE FAVOR OF JPMORGAN CHASE BANK, AS TRUSTEE PURSUANT TO THAT CERTAIN STANDBY TRUST AGREEMENT ENTERED INTO AS OF JULY 15, 2002, BY AND BETWEEN JPMORGAN CHASE BANK AND CAMPBELL SOUP COMPANY, AT THE REQUEST AND FOR THE ACCOUNT OF CAMPBELL SOUP COMPANY FOR THIRD-PARTY LIABILITY AWARDS OR SETTLEMENTS UP TO ONE MILLION U.S. DOLLARS (USD1,000,000) PER OCCURRENCE AND THE ANNUAL AGGREGATE AMOUNT OF TWO MILLION U.S. DOLLARS (USD2,000,000), FOR SUDDEN ACCIDENTAL OCCURRENCES AVAILABLE UPON PRESENTATION OF A SIGHT DRAFT, BEARING REFERENCE TO THIS LETTER OF CREDIT NO. P-226893.

THIS LETTER OF CREDIT IS EFFECTIVE AS OF JULY 15, 2002 AND WILL EXPIRE ON JULY 15, 2003, BUT SUCH EXPIRATION DATE WILL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF AT LEAST ONE YEAR ON JULY 15, 2003 AND ON EACH SUCCESSIVE EXPIRATION DATE, UNLESS, AT LEAST ONE HUNDRED TWENTY DAYS BEFORE THE CURRENT EXPIRATION DATE, WE NOTIFY YOU, THE DIRECTOR AND CAMPBELL SOUP COMPANY BY CERTIFIED MAIL OR COURIER THAT WE HAVE DECIDED NOT TO EXTEND THIS LETTER OF CREDIT BEYOND THE CURRENT EXPIRATION DATE.

WHENEVER THIS LETTER OF CREDIT IS DRAWN ON, UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT, WE WILL DULY HONOR SUCH DRAFT UPON PRESENTATION TO US.

WE CERTIFY THAT THE WORDING OF THIS LETTER OF CREDIT IS IDENTICAL TO THE WORDING SPECIFIED IN PARAGRAPH (K) OF RULE 3745-55-51 OF THE ADMINISTRATIVE CODE AS SUCH REGULATIONS WERE CONSTITUTED ON THE DATE

-CONTINUED-

Authorized Signature

JPMorganChase Bank
Global Trade Services

JPMorgan

ISSUE DATE: JULY 18, 2002
L/ NO.: P-226893

Advising Bank
********** DIRECT **********

APPLICANT:
CAMPBELL SOUP CO
CAMPBELL PLACE
CAMDEN, N. J. 08103

Beneficiary
OHIO ENVIRONMENTAL PROTECTION AGENCY
(SEE BELOW FOR FULL ADDRESS)

MAIL TO →

AMOUNT: USD 2,000,000.00
(TWO MILLION AND 00/100
UNITED STATES DOLLARS)

SHOWN IMMEDIATELY BELOW.

THIS CREDIT IS SUBJECT TO THE UNIFORM COMMERCIAL CODE.

ALL CORRESPONDENCE AND ANY DRAWINGS PRESENTED IN CONNECTION WITH THIS LETTER OF CREDIT MUST ONLY BE PRESENTED TO US AT THE JPMORGAN CHASE BANK, C/O JPMORGAN TREASURY SERVICES, 10420 HIGHLAND MANOR DRIVE, 4TH FLOOR, TAMPA, FLORIDA 33610, ATTENTION: STANDBY LETTER OF CREDIT DEPARTMENT. CUSTOMER INQUIRY NUMBER IS (866) 632-5101 AND CHOOSE OPTION 3.

P-226893- -001-L1-01-

Authorized Signature

Standby Trust Agreement

Standby Trust Agreement (the "Agreement") entered into as of July 15, 2002 by and between Campbell Soup Company, a New Jersey corporation (the "Grantor"), and JPMorgan Chase Bank, a national bank (the "Trustee").

Whereas, the Ohio Environmental Protection Agency (the "Ohio EPA") has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This Agreement pertains to the facilities identified on attached schedule A.

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund (hereafter the "Fund") for the benefit of any and all third parties injured or damaged by sudden accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amount of up to $1 million per occurrence and up to $2 million annual aggregate for sudden accidental occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which Campbell Soup Company is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that Campbell Soup Company would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of Campbell Soup Company under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of Campbell Soup Company arising from, and in the course of, employment by Campbell Soup Company; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of or arising from, and in the course of employment by Campbell Soup Company. This exclusion applies:

(a) Whether Campbell Soup Company may be liable as an employer or in any other capacity; and

(b) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by Campbell Soup Company;

(2) Premises that are sold, given away or abandoned by Campbell Soup Company if the property damage arises out of any part of those premises;

(3) Property loaned to Campbell Soup Company;

(4) Personal property in the care, custody or control of Campbell Soup Company;

(5) That particular part of real property on which Campbell Soup Company or any contractors or subcontractors working directly or indirectly on behalf of Campbell Soup Company are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered primary coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, in trust, as hereinafter provided. The Trustee shall not

be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by Ohio EPA.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a sudden accidental occurrence arising from operating [Grantor's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $[____].

[Signature]_____

Grantor_____

[Signatures]_____

Claimant(s)_____

(b) A valid court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of paragraph (K) of rule 3745-55-51 of the Administrative Code and Section 4 of this Agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government;

(b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or a state government; and

(c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States government, or any agency or

instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor. Such compensation shall initially be $3,000 per annum or any part thereof without proration for partial years.

Section 12. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor Trustee and this successor accepts the appointment. The successor Trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor Trustee's acceptance of the appointment, the Trustee shall assign, transfer and pay over to the successor Trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor Trustee or for instructions. The successor Trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the director, and the present Trustee by certified mail ten days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee. All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting

without inquiry in accordance with the Grantor's orders, requests and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests and instructions from the Grantor and/or the director except as provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the director, or by the Trustee and the director if the Grantor ceases to exist.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the director or by the Trustee and the director if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor. The director will agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense. Anything in this Agreement to the contrary notwithstanding, in no event shall the Trustee be liable for special, indirect or consequential loss or damage of any kind whatsoever (including but not limited to lost profits), even if the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Ohio.

Section 18. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In witness whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written.

GRANTOR:

Name: William J. O'Shea
Title: Vice President -- Treasurer

Attest
Title: Assistant Corporate Secretary

[Seal]

TRUSTEE:

Name:
Title: AURA V. CALDAS
ASSISTANT VICE PRESIDENT

ROLA TSENG
ASSISTANT VICE PRESIDENT

Attest
Title: Corporate Secretary

[Seal]

State of New Jersey
County of Camden

On this July 15, 2002, before me personally came William J O'Shea to me known, who, being by me duly sworn, did depose and say that she/he resides at Campbell Place, Camden, NJ, that she/he is Vice President – Treasurer of Campbell Soup Company, the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed under the authority of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like authority.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Carole J Conner
Notary Public

CAROLE J. CONNER
NOTARY PUBLIC OF NEW JERSEY
Commission Expires 10/31/2005

Schedule A

EPA identification number: OHD005419171

Name of facility: Campbell Soup Supply Company

Address of the facility: 12-773 State Route 110, Napoleon, Ohio 43545

Ohio permit number: OHD 0054191711

Amount of liability coverage: One Million U.S. dollars ($1,000,000) per occurrence and the annual aggregate amount of Two Million U.S. dollars ($2,000,000).

Schedule B

Irrevocable Standby Letter of Credit No. P-226893 established by JPMoran Chase Bank in the favor of JPMorgan Chase Bank, as trustee pursuant to that certain Standby Trust Agreement entered into as of July 15, 2002, by and between JPMorgan Chase Bank and Campbell Soup Company.

Exhibit A
Designated Persons

Douglas R. Conant – President and Chief Executive Officer
Robert A. Schiffner – Senior Vice President and Chief Financial Officer
William J. O'Shea – Vice President – Treasurer
Timothy Skidmore – Assistant Treasurer

JPMorganChase Bank
Global Trade Services

JPMorgan

ISSUE DATE: JULY 18, 2002
L/ NO.: P-226892

Advising Bank
********** DIRECT **********

APPLICANT:
CAMPBELL SOUP CO
CAMPBELL PLACE
CAMDEN, N. J. 08103

Beneficiary
MAIL TO
OHIO ENVIRONMENTAL PROTECTION
AGENCY, NORTWEST DISTRICT OFFICE,
DIV OF HAZARDOUS WASTE MNGMT, 347
(SEE BELOW FOR FULL ADDRESS)

AMOUNT: USD 586,523.00
(FIVE HUNDRED EIGHTY SIX
THOUSAND FIVE HUNDRED TWENTY
THREE AND 00/100 UNITED
STATES DOLLARS)

BENEFICIARY'S FULL ADDRESS:
OHIO ENVIRONMENTAL PROTECTION AGENCY
NORTWEST DISTRICT OFFICE
DIVISION OF HAZARDOUS WASTE MANAGEMENT
347 NORTH DUNBRIDGE ROAD
BOWLING GREEN, OH 43402

"IRREVOCABLE STANDBY LETTER OF CREDIT"

CHRISTOPHER JONES, DIRECTOR
OHIO ENVIRONMENTAL PROTECTION AGENCY

DEAR SIR OR MADAM:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. P-226892 IN YOUR FAVOR, AT THE REQUEST AND FOR THE ACCOUNT OF CAMPBELL SOUP COMPANY UP TO THE AGGREGATE AMOUNT OF FIVE HUNDRED EIGHTY SIX THOUSAND FIVE HUNDRED TWENTY THREE AND 00/100 U. S. DOLLARS (USD586,523.00) AVAILABLE UPON PRESENTATION OF:

(1) YOUR SIGHT DRAFT, BEARING REFERENCE TO THIS LETTER OF CREDIT NO. P-226892, AND

(2) YOUR SIGNED STATEMENT READING AS FOLLOWS: "I CERTIFY THAT THE AMOUNT OF THE DRAFT IS PAYABLE PURSUANT TO REGULATIONS ISSUED UNDER THE AUTHORITY OF CHAPTER 3734, OF THE OHIO REVISED CODE AS AMENDED".

THIS LETTER OF CREDIT IS EFFECTIVE AS OF JULY 15, 2002 AND WILL EXPIRE ON JULY 15, 2003, BUT SUCH EXPIRATION DATE WILL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF ONE YEAR ON JULY 15,2003 AND ON EACH SUCCESSIVE EXPIRATION DATE, UNLESS, AT LEAST ONE HUNDRED TWENTY DAYS PRIOR TO THE CURRENT EXPIRATION DATE, WE NOTIFY BOTH YOU AND THE CAMPBELL SOUP COMPANY BY CERTIFIED MAIL OR COURIER THAT WE HAVE DECIDED NOT TO EXTEND THIS LETTER OF CREDIT BEYOND THE CURRENT EXPIRATION DATE. IN THE EVENT THAT YOU ARE SO NOTIFIED, ANY UNUSED PORTION OF THE CREDIT WILL BE AVAILABLE UPON PRESENTATION OF YOUR SIGHT DRAFT FOR ONE HUNDRED TWENTY DAYS AFTER THE FIRST DAY OF RECEIPT BY BOTH YOU AND CAMPBELL SOUP COMPANY AS EVIDENCED BY THE RETURN RECEIPTS.

WHENEVER THIS LETTER OF CREDIT IS DRAWN UNDER AND IN COMPLIANCE WITH

-CONTINUED-

Authorized Signature

JPMorganChase Bank
Global Trade Services

JPMorgan

ISSUE DATE: JULY 18, 2002
L/ NO.: P-226892

Advising Bank
********** DIRECT **********

APPLICANT:
CAMPBELL SOUP CO
CAMPBELL PLACE
CAMDEN, N. J. 08103

Beneficiary
MAIL TO
OHIO ENVIRONMENTAL PROTECTION
AGENCY, NORTWEST DISTRICT OFFICE,
DIV OF HAZARDOUS WASTE MNGMT, 347
(SEE BELOW FOR FULL ADDRESS)

AMOUNT: USD 586,523.00
(FIVE HUNDRED EIGHTY SIX
THOUSAND FIVE HUNDRED TWENTY
THREE AND 00/100 UNITED
STATES DOLLARS)

THE TERMS OF THIS CREDIT, WE WILL DULY HONOR SUCH DRAFT UPON PRESENTATION TO US, AND WE WILL DEPOSIT THE AMOUNT OF THE DRAFT DIRECTLY INTO THE STANDBY TRUST FUND OF CAMPBELL SOUP COMPANY IN ACCORDANCE WITH YOUR INSTRUCTIONS.

WE CERTIFY THAT THE WORDING OF THIS LETTER OF CREDIT IS IDENTICAL TO THE WORDING SPECIFIED IN PARAGRAPH (D) OF RULE 3745-55-51 OF THE ADMINISTRATIVE CODE AS SUCH REGULATIONS WERE CONSTITUTED ON THE DATE SHOWN IMMEDIATELY BELOW.

THIS CREDIT IS SUBJECT TO THE UNIFORM COMMERCIAL CODE.

ALL CORRESPONDENCE AND ANY DRAWINGS PRESENTED IN CONNECTION WITH THIS LETTER OF CREDIT MUST ONLY BE PRESENTED TO US AT THE JPMORGAN CHASE BANK, C/O JPMORGAN TREASURY SERVICES, 10420 HIGHLAND MANOR DRIVE, 4TH FLOOR, TAMPA, FLORIDA 33610, ATTENTION: STANDBY LETTER OF CREDIT DEPARTMENT. CUSTOMER INQUIRY NUMBER IS (866) 632-5101 AND CHOOSE OPTION 3.

P-226892- -001-L1-01-

02-01

- 2

Authorized Signature

OhioEPA
State of Ohio Environmental Protection Agency

Henry County
Campbell's Soup
General

RECEIVED
AUG 05 2002
OHIO E.P.A.
N.W.D.O.

STREET ADDRESS:
Lazarus Government Center
122 South Front St.
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
Lazarus Government Center
P. O. Box 1049
Columbus, OH 43216-1049

AUG 01 2002

Certified Mail

OHIO E.P.A.
AUG - 1 2002
ENTERED DIRECTOR'S JOURNAL

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: **Revised Closure Plan Approval**
Campbell Soup Company
USEPA/OEPA ID# OHD005419171

Dear Dr. Aly:

On October 31, 2001, GeoTrans Inc., on behalf of Campbell Soup Company (Campbell) submitted to Ohio EPA a closure plan entitled RCRA Site Closure Plan, Former Holding Pit Unit for a sludge pit unit formerly operated on the property. The facility is located at 1273 State Route 110, Napoleon, Ohio 43545. Revisions to the closure plan were received May 28, 2002, and July 15, 2002. The closure plan was submitted pursuant to the revised Director's Final Findings and Orders issued August 22, 2001, and Ohio Administrative Code (OAC) 3745-66-12 in order to demonstrate that Campbell's proposal for closure complies with the requirements of rules OAC 3745-66-11 and 3745-66-12.

The owner and the public were given the opportunity to submit written comments regarding the closure plan in accordance with the hazardous waste rule requirements. The public comment period extended from November 21, 2001, through December 20, 2001. No public comments were received by Ohio EPA.

Based upon review of Campbell's submittal and subsequent revisions, I conclude that the amended closure plan for the hazardous waste facility at 1273 State Route 110, Napoleon, Ohio 43545, as modified herein, meets the performance standard contained in OAC rule 3745-66-11 and complies with the pertinent parts of OAC rule 3745-66-12.

The amended closure plan originally submitted to Ohio EPA on October 31, 2001, and revised on May 28, 2002, and July 15, 2002, by Campbell is hereby approved with the following modifications:

I certify that this is a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

Printed on Recycled Paper

Approval with Modifications to Revised Closure Plan
Campbell Soup Company

Ohio EPA has determined that several site characterization activities must be performed by the facility to meet the general closure standards for hazardous waste facilities and the specific standards for the closure of surface impoundments. These activities must be completed as part of the closure period. Site investigation results will determine whether additional closure activities are needed or whether closure certification can be completed. The nature and extent of post-closure monitoring will also be directed by the results from sampling activities outlined in Section 14.4.

General Modifications to the May 28, 2002, Revised Closure Plan

1 No excavation activities as outlined in this plan shall be undertaken until any and all authorizations necessary to perform the actions contained herein are obtained from Ohio EPA. This includes any permits necessary pursuant to compliance with OAC rules 3745-31-02 and 3745-35-02. Copies of such authorization(s) shall be received by the Division of Hazardous Waste, NWDO prior to beginning any excavation.

2 Campbell shall follow standard industry protocols while investigating the potential for impact to shallow ground water including those activities outlined in Section 14.1. Data that demonstrates appropriate well construction, boring, development, and sampling logs as well as all other pertinent monitoring well information and ground water analytical results shall be generated and compiled during this investigation for submission to Ohio EPA. Standards for such activities can be found in the Ohio EPA guidance document entitle *Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring* dated February 1995.

3 If analysis of water samples obtained from the ground water investigation show the shallow ground water has been impacted, within 30 days of receipt of the analytical results, Campbell shall submit an amended closure plan which includes a revised schedule for closure and details the measures to be undertaken to delineate and remediate the areas of contamination.

4 If Campbell is not able to demonstrate clean closure of the contaminated area at the time of submission of the certification report, Campbell shall either excavate and dispose of all contaminated material off-site or submit an amended closure plan which details the measures necessary to close as a surface impoundment in accordance with OAC rule 3745-67-28. Should the latter alternative be chosen, Campbell shall submit a closure/post-closure care plan pursuant to OAC rules 3745-66-10 through 3745-66-20 and 3745-68-10.

Specific Modifications to the May 28, 2002, Revised Closure Plan

5 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state that Campbell will complete and submit a site health and safety plan to Ohio EPA, NWDO within 30 days of receipt of a notice of approval by Ohio EPA of the closure plan.

6 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state all information generated during the shallow ground water investigation shall be submitted to Ohio EPA, NWDO within 30 days of the installation of the last monitoring well.

7 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state Campbell will receive the results of closure verification sampling within 180 days of receipt of a notice of approval by Ohio EPA of the closure plan.

8 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state Campbell will conduct the engineer inspection and certification of site closure within 180 days of receipt of a notice of approval by Ohio EPA of the closure plan.

9 Section 11, Decontamination Efforts. For sampling and analysis involving waste delineation and confirmation, Campbell shall collect field blanks at a frequency of 10% of the total number of samples sent to the laboratory at a minimum of one field blank per day. Field blanks shall consist of analyte-free water poured over decontaminated sample collection equipment. They shall be analyzed for each analysis requested for the soil samples being sent to the laboratory for that particular day of sample collection.

10 Section 14.4, Waste Characterization Sampling Plan. The revised closure plan is hereby modified to state material analyzed for the presence of hazardous waste characteristics as required by OAC rule 3745-52-11 shall utilize the Toxicity Characteristic Leaching Procedure (TCLP) extraction method. These samples shall be analyzed for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals using standard SW-846 methods.

11 Section 14.4, Waste Characterization Sampling Plan. The revised closure plan is hereby modified to state copies of manifests and receipts will be sent to Ohio EPA, NWDO for any waste disposed off-site. Campbell shall provide Ohio EPA with an estimate of volume for all wastes treated on-site and disposed off-site as a result of closure activities.

12 Section 17.0, Certification. The revised closure plan is hereby modified to state Campbell shall include a topographic map depicting the ground surface elevations of the mound and natural grade with a scale no greater than 1 inch equals 30 feet and a contour interval no greater than 5 feet. It shall also include detailed descriptions and locations of the topographic features in the vicinity of the mound and at Campbell's plant which may affect conditions at the mound (i.e., buildings, rivers, ditches, etc...).

13 Section 17.0, Certification. The revised closure plan is hereby modified to state that Campbell shall include a separate appendix in the closure certification report which contains all the data generated during the ground water investigation. This may be incorporated by reference if this information has already been submitted in its entirety to Ohio EPA, NWDO in distinct form. Lab data generated as part of this investigation may be placed elsewhere within the report.

14 Table 3 in the revised closure plan which contains the maximum concentrations for the constituents of concern is hereby replaced by the table in Attachment A.

End of Modifications

Compliance with the approved closure plan, especially including the modifications specified herein, is expected. Ohio EPA will monitor such compliance. Ohio EPA expressly reserves the right to take action, pursuant to chapters 3734. and 6111. of the Ohio Revised Code, and other applicable law, to enforce such compliance and to seek appropriate remedies in the event of noncompliance with the provisions and modifications of this approved closure plan. Please be advised that approval of this closure plan does not release Campbell from any responsibilities regarding corrective action for all releases of hazardous waste or constituents from any waste management unit, regardless of the time at which waste was placed in the unit.

You are hereby notified that this action of the Director of Environmental Protection is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the commission within 30 days after notice of the director's action. Notice of the filing of the appeal shall be filed with the director within three days after the appeal is filed with the commission. An appeal may be filed with the commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

When closure is completed, OAC rule 3745-66-15 requires the owner or operator of a facility to submit to the director of Ohio EPA, certification by the owner or operator and an independent, registered professional engineer, that the facility has been closed in accordance with the approved closure plan.

The certification by the owner or operator shall include the statement found in OAC rule 3745-50-42(D). These certifications should be submitted to:

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
Attn: Pamela Allen, Information Technologies and Technical Support Section
P.O. Box 1049, Columbus, Ohio 43216-1049

Ohio EPA, Division of Hazardous Waste Management, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and, as a result, eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Colleen Weaver at (419) 373-3059.

Sincerely,

Christopher Jones
Director

cc: Pamela Allen, DHWM Central File, Ohio EPA
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA
Harriet Croke, USEPA - Region V
James Moseley, NWDO, Ohio EPA
Craig Savage, GeoTrans, Inc.
ec Michael Terpinski, NWDO, Ohio EPA
Colleen Weaver, NWDO, Ohio EPA
James Moseley NWDO, Ohio EPA

CJ/llr

Attachment A

Chemical of Concern Identified at the Site	Direct Contact Soil Standard, Multiple Chemical Adjusted (µg/kg)	Direct Contact Soil Standard, Multiple Chemical Adjusted (mg/kg)	Basis	Non-Cancer GCN	Cancer GCN	SAT	MCA NC	MCA CA
Chloromethane (methyl chloride)	813	0.81	nc	3.66E+01	na	1.09E+03	8.13E-01	na
Bromomethane	84	0.08	nc	3.77E+00	na	3.07E+03	8.38E-02	na
Methylene chloride	5,313	5.31	ca	1.63E+03	8.50E+01	2.28E+03	3.62E+01	5.31E+00
Chloroform	151	0.15	ca	4.16E+01	2.41E+00	2.53E+03	9.24E-01	1.51E-01
Benzene	152	0.15	nc	6.85E+00	6.87E+00	9.58E+02	1.52E-01	4.29E-01
Trichloroethene	498	0.50	nc	2.24E+01	2.70E+01	9.24E+02	4.98E-01	1.69E+00
Toluene	12,756	12.76	nc	5.74E+02	na	8.80E+02	1.28E+01	na
Ethylbenzene	30,444	30.44	nc	1.37E+03	na	2.25E+02	3.04E+01	na
Total xylenes	32,667	32.67	nc	1.47E+03	na	3.16E+02	3.27E+01	na
Styrene	88,667	88.67	nc	3.99E+03	na	6.83E+02	8.87E+01	na
Isopropylbenzene (cumene)	35,333	35.33	nc	1.59E+03	na	8.55E+02	3.53E+01	na
1,2,3-Trichloropropane	40	0.04	ca	3.27E+02	6.33E-01	9.88E+02	7.27E+00	3.96E-02
n-Propylbenzene	12,111	12.11	nc	5.45E+02	na	7.20E+01	1.21E+01	na
1,3,5-Trimethylbenzene	431	0.43	nc	1.94E+01	na	1.99E+02	4.31E-01	na
tert-Butylbenzene	12,111	12.11	nc	5.45E+02	na	3.88E+02	1.21E+01	na
1,2,4-Trimethylbenzene	496	0.50	nc	2.23E+01	na	2.55E+02	4.96E-01	na
sec-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
p-Isopropyltoluene	12,733	12.73	nc	5.73E+02	na	5.73E+02	1.27E+01	na
n-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
1,2,4-Trichlorobenzene	2,333	2.33	nc	1.05E+02	na	3.02E+03	2.33E+00	na
Naphthalene	1,213	1.21	nc	5.46E+01	na	2.43E+02	1.21E+00	na
2-Methylnaphthalene	1,213	1.21	nc	5.46E+01	na	1.13E+04	1.21E+00	na
Methyl 4-2-Propanone (MIBK)	16,178	16.18	nc	7.28E+02	na	1.72E+04	1.62E+01	na
Butanone 2- (MEK)	146,667	146.67	nc	6.60E+03	na	3.41E+04	1.47E+02	na
Acenaphthene	48,667	48.67	nc	2.19E+03	na	1.08E+02	4.87E+01	na
Fluorene	33,778	33.78	nc	1.52E+03	na	9.03E+01	3.38E+01	na
Phenanthrene	158,000	158.00	sat	1.21E+04	na	1.58E+02	2.69E+02	na
Anthracene	5,670	5.67	sat	1.21E+04	na	5.67E+00	2.69E+02	na
Fluoranthene	36,667	36.67	nc	1.65E+03	na	na	3.67E+01	na
Pyrene	33,333	33.33	nc	1.50E+03	na	9.96E+01	3.33E+01	na
Benzo (a) Anthracene	289	0.29	ca	na	4.63E+00	na	na	2.89E-01
Chrysene	7,180	7.18	sat	na	4.57E+02	7.18E+00	na	2.86E+00
Benzo (b) Fluoranthene	288	0.29	ca	na	4.60E+00	na	na	2.88E-01
Benzo (k) Fluoranthene	2,906	2.91	ca	na	4.65E+01	na	na	2.91E+00
Benzo (a) Pyrene	29	0.03	ca	na	4.65E-01	na	na	2.91E-02
Indeno (1,2,3-cd) Pyrene	291	0.29	ca	na	4.65E+00	na	na	2.91E-01
Benzo (g,h,i) Perylene	150	0.15	sat	1.50E+03	na	1.50E-01	3.33E+01	na
Trichlorofluoromethane	7,956	7.96	nc	3.58E+02	na	3.91E+04	7.96E+00	na
1,1-Dichloroethene	33	0.03	ca	1.97E+01	5.21E-01	1.55E+03	4.38E-01	3.26E-02
trans-1,2-Dichloroethene	1,382	1.38	nc	6.22E+01	na	3.05E+03	1.38E+00	na
1,1-Dichloropropene	qualitative	qualitative		na	na		na	na
1,2-Dichloroethane	238	0.24	nc	1.07E+01	2.82E+01	1.81E+03	2.38E-01	1.76E+00
Chlorobenzene	1,116	1.12	nc	5.02E+01	na	6.95E+02	1.12E+00	na
Bromobenzene	836	0.84	nc	3.76E+01	na	7.53E+02	8.36E-01	na
1,1,2,2-Tetrachloroethane	223	0.22	ca	na	3.56E+00	1.71E+03	na	2.23E-01
2-Chlorotoluene	24,222	24.22	nc	1.09E+03	na	1.42E+03	2.42E+01	na
4-Chlorotoluene	qualitative	qualitative		na	na	3.44E+02	na	na
1,3-Dichlorobenzene	9,089	9.09	nc	4.09E+02	na	2.40E+02	9.09E+00	na
1,4-Dichlorobenzene	1,900	1.90	ca	3.37E+03	3.04E+01	na	7.49E+01	1.90E+00
1,2-Dichlorobenzene	19,178	19.18	nc	8.63E+02	na	3.73E+02	1.92E+01	na
1,2-Dibromo-3-chloropropane	69	0.07	nc	3.11E+00	na	2.07E+03	6.91E-02	na
Hexachlorobutadiene	242	0.24	nc	1.09E+01	5.68E+01	1.18E+05	2.42E-01	3.55E+00
1,2,3-Trichlorobenzene	182	0.18	nc	8.18E+00	na	1.24E+03	1.82E-01	na
Acetone	32,000	32.00	nc	1.44E+03	na	1.04E+05	3.20E+01	na

Henry County
Campbell's Soup
General

Campbell SOUP Company

Osman M. Aly, Ph.D.
Consultant

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Telephone: 856-968-4423
FAX # 856-968-2808/2809

July 18, 2002

Via Airborne Express

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
ATTN: DHWM Manager/Mr. James Moseley
347 North Dunbridge Road
Bowling Green, OH 43402

RECEIVED
JUL 22 2002
OHIO E.P.A
N.W.D.O.

And

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste management
ATTN: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

RE: Amendments to Director's Final Finding and Orders, October 18, 2000
Campbell Soup Supply Company, L.L.C.
Campbell Soup Company
Financial Assurance for Facility Closure

Gentlemen:

Enclosed please find a Standby Trust Agreement and a Standby Letter of Credit No. P-226893 established by J. P. Morgan Chase Bank to demonstrate the establishment of financial assurance and liability coverage for closure of the former Pit areas in accordance with OAC rules 3745-55-42/3745-66-42 through 3745-55-47/3745-66-47.

The financial assurance was established in compliance with Section v.b. of the Orders.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

OMA/lgm
Attachment*

cc: F. Greenfield*
M. Maringer
R. Shober
C. del Sol
T. Skidmore

Standby Trust Agreement

Standby Trust Agreement (the "Agreement") entered into as of July 15, 2002 by and between Campbell Soup Company, a New Jersey corporation (the "Grantor"), and JPMorgan Chase Bank, a national bank (the "Trustee").

Whereas, the Ohio Environmental Protection Agency (the "Ohio EPA") has established certain rules applicable to the Grantor, requiring that the owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility,

Whereas, the Grantor has elected to provide the Ohio EPA with an irrevocable Standby Letter of Credit (the "LOC") to provide for such financial assurance for the facilities identified herein,

Whereas, the LOC provides that any funds paid pursuant to it shall be deposited into a trust to further provide such financial assurance.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee is willing to act as trustee,

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

(c) The term "Director" means the Director of the Ohio EPA, or his designee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A.

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund (the "Fund") for the benefit of the Ohio EPA. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of any funds payable pursuant to, and in accordance with, the LOC, which is acceptable to the Trustee. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund will be held by the Trustee, in trust, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility

for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Ohio EPA.

Section 4. Payment for Closure and Post-Closure Care. In the event of a deposit of funds into the trust from the LOC or otherwise, the Trustee will make such payments from the Fund as the Director will direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facilities covered by this Agreement. The Trustee will reimburse the Grantor or other persons as specified by the Director from the Fund for closure and post-closure expenditures in such amounts as the Director will direct, in writing. In addition, the Trustee will refund to the Grantor such amounts as the Director specifies in writing. Upon refund, such funds will no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund will consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee will invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling and managing the Fund, the Trustee will discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 USC # 80a-2(a), will not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. # 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee will be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee will at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund will be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee will be paid from the Fund.
Section 10. Annual Valuation. In the event of a deposit of funds into the trust from the LOC or otherwise, the Trustee will annually, at least thirty days prior to the anniversary date of such deposit furnish to the Grantor and to the Director a statement confirming the value of the Trust. Any securities in the Fund will be valued at market value as of no

more than sixty days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within ninety days after the statement has been furnished to the Grantor and the Director will constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee will be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee will be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor. Such compensation shall initially be $3,000 per annum or any part thereof without proration for partial years.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor Trustee and this successor accepts the appointment. The successor Trustee will have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor Trustee's acceptance of the appointment, the Trustee will assign, transfer and pay over to the successor Trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor Trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director, and the present Trustee by certified mail ten days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section will be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests and instructions by the Grantor to the Trustee will be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee will be fully protected in acting without inquiry in accordance with the Grantor's orders, requests and instructions. All orders, requests, and instructions by the Director of the Ohio EPA or his designee to the Trustee will be in writing, signed by the Director of the Ohio EPA or his designee, and the Trustee will act and will be fully protected in acting in accordance with such orders, requests and instructions. The Trustee will have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee will have no duty to act in the absence of such orders, requests and instructions from the Grantor and/or the Director except as provided for herein.

Section 15. Notice of Nonpayment. In the event of a deposit of funds into the trust from the LOC or otherwise, the Trustee will notify the Grantor and the Director, by certified

mail within ten days following the expiration of the thirty-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed the Trustee is not required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust will be irrevocable and will continue until terminated at the written agreement of the Grantor, the Trustee, and the Director or by the Trustee and the Director if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, will be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee will not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Director issued in accordance with this Agreement. The Trustee will be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense. Anything in this Agreement to the contrary notwithstanding, in no event shall the Trustee be liable for special, indirect or consequential loss or damage of any kind whatsoever (including but not limited to lost profits), even if the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action.

Section 19. Choice of Law. This Agreement will be administered, construed and enforced according to the laws of the state of Ohio.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement will not affect the interpretation or the legal efficacy of this Agreement.

In witness whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written.

GRANTOR:

Name: William J. O'Shea
Title: Vice President -- Treasurer

Attest
Title: Assistant Corporate Secretary

[Seal]

TRUSTEE:

Name:
Title:

AURA V. CALDAS
ASSISTANT VICE PRESIDENT

ROLA TSENG
ASSISTANT VICE PRESIDENT

Attest
Title: Corporate Secretary

[Seal]

State of New Jersey
County of Camden

On this July 15, 2002, before me personally came William J. O'Shea to me known, who, being by me duly sworn, did depose and say that she/he resides at 1 Campbell Place, Camden, NJ, that she/he is Vice President -- Treasurer of Campbell Soup Company, the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed under the authority of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like authority.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Carole J. Conner
Notary Public

CAROLE J. CONNER
NOTARY PUBLIC OF NEW JERSEY
Commission Expires 10/31/2005

Schedule A

EPA identification number:	OHD005419171
Name of facility	Campbell Soup Supply Company
Address of the facility:	12-773 State Route 110, Napoleon, Ohio 43545
Ohio permit number:	OHD 0054191711
Amount of funds for closure:	$586,523.

Exhibit A

Designated Persons

Douglas R. Conant – President and Chief Executive Officer
Robert A. Schiffner – Senior Vice President and Chief Financial Officer
William J. O'Shea – Vice President – Treasurer
Timothy Skidmore – Assistant Treasurer

Henry County
Campbell's Soup
General

GeoTrans, Inc.
A TETRA TECH COMPANY

LETTER OF TRANSMITTAL

710 Avis Drive, Ann Arbor, MI 48108 □ (734)213-2204 □ (734)213-5008 (FAX)

RECEIVED
JUL 15 2002
OHIO E.P.A.
N.W.D.O.

TO: Mr. James Moseley
Ohio EPA - NWDO
347 North Dunbrigde Drive
Bowling Green, OH 43402

DATE: 7/12/2002
RE: Campbell Soup RCRA Site
PROJ. NO. P896

We are sending you the following:

No. of Copies	Description
2	RCRA Closure Plan Figure 3C
2	RCRA Closure Plan Figure 6

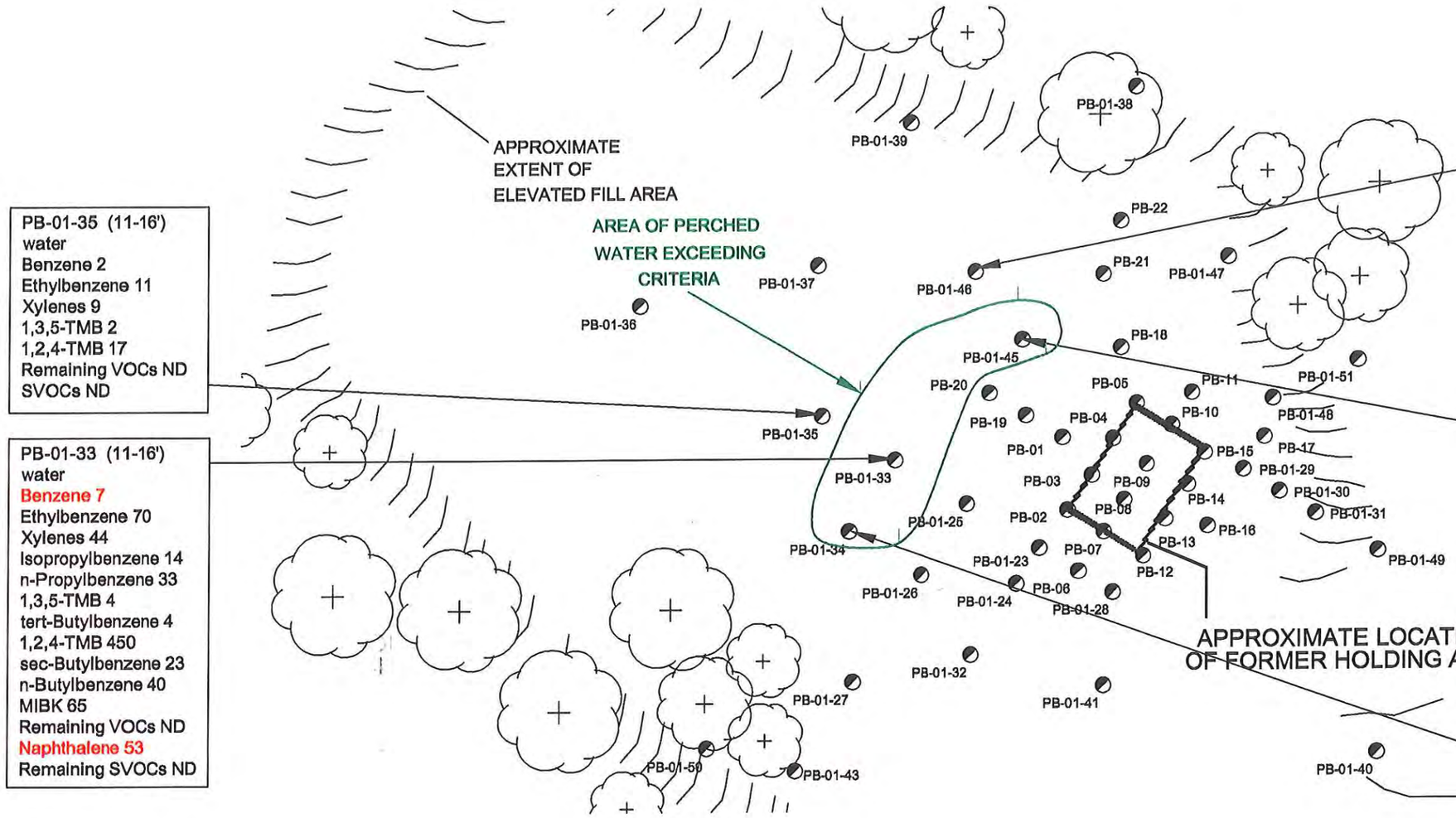
These are Transmitted as checked below:

- ☐ For approval
- ☑ For your use
- ☐ As requested
- ☐ For review and comment
- ☐ Approved as submitted
- ☐ Approved as noted
- ☐ Returned for corrections
- ☐ Other

Upon review of the RCRA Site Closure Plan, Former Holding Pit, Campbell Soup Company, Napoleon Ohio dated May 24, 2002 we noticed minor errors on Figures 3C and Figure 6. Therefore we are re-issuing both figures with this transmittal. Figure 3C has been revised to remove the square symbols labeled 'SD' surrounding the mound. This symbols do not represent anything, and were in an ambiguous layer in AutoCAD. The numbering scheme for the proposed soil borings has been revised in Figure 6 to eliminate the duplication of PB-01-51. The proposed borings are now labeled PB-01-52 through PB-01-58.

Signed: Craig Savage, C.P.G.

cc: Pamela Allen, OEPA
Dr. Aly, Campbell Soup
Dan Morgan, GeoTrans



NOTES:

1. DATA ARE PRESENTED IN µG/L.
2. PRESENTED DATA IS FROM MAY 2001 SAMPLING EVENT.
3. RED TEXT INDICATES CONCENTRATIONS ARE ABOVE OHIO EPA RESIDENTIAL DIRECT CONTACT CRITERIA, ADJUSTED FOR MULTIPLE CHEMICALS.

LEGEND:

VOCs = VOLATILE ORGANIC COMPOUNDS
SVOCS = SEMIVOLATILE ORGANIC COMPOUNDS
TMB = TRIMETHYLBENZENE
MIBK = METHYL 4,-2-PROPANONE
MEK = BUTANONE 2

RECEIVED
JUL 15 2002
OHIO E.P.A.
N.W.D.O.

GeoTrans, Inc.
A TETRA TECH COMPANY

30' 15' 0 30' 60'

SCALE: 1" = 30'

CHECKED: CAS

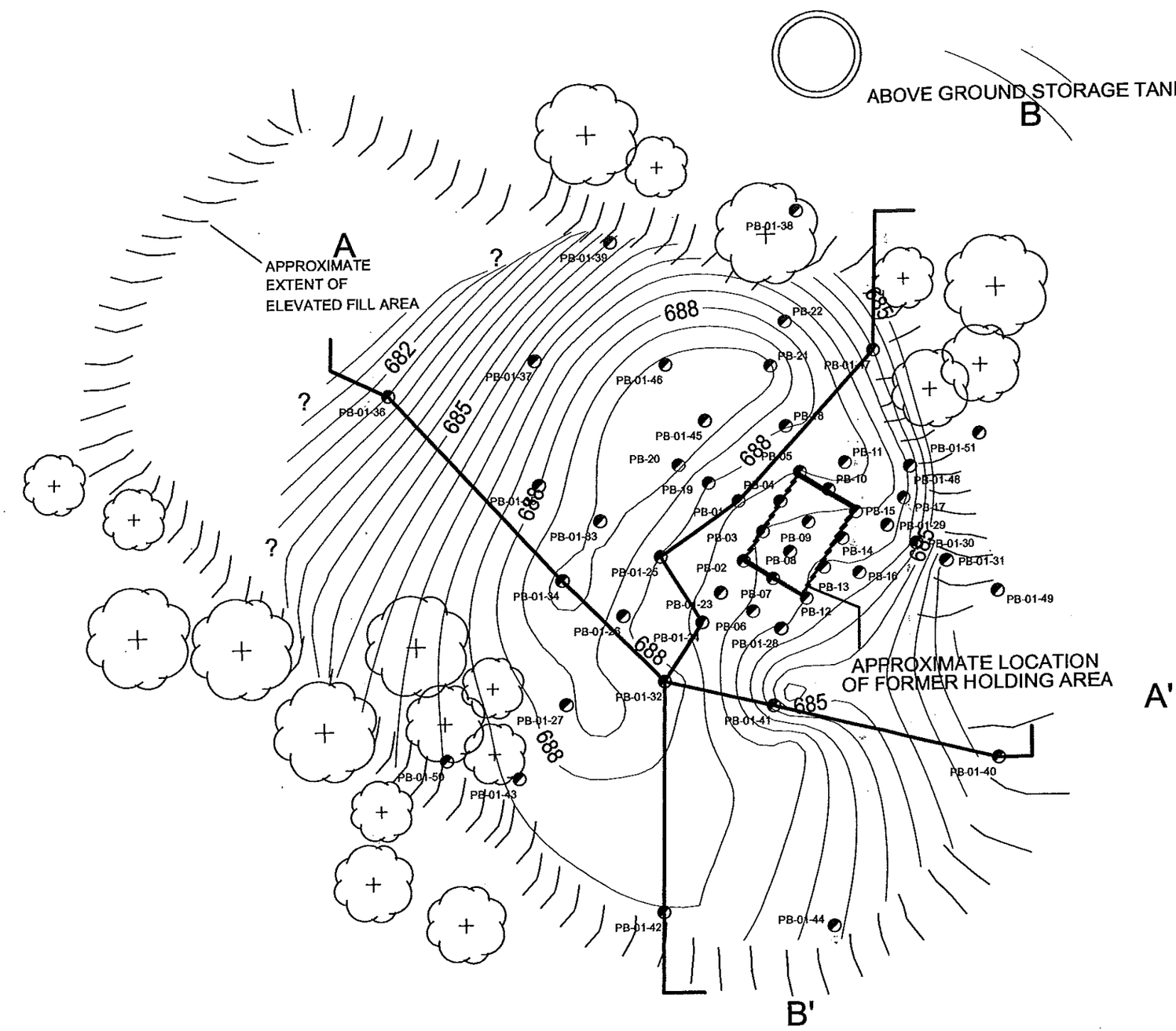
DATE: 10/23/01

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

AREA OF
PERCHED WATER
CONTAMINATION

FIGURE
3C

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 10/23/01 LAB 1



NOTES:

1. CONTOURS GENERATED IN SURFER USING KRIGING DEFAULT SETTINGS AND GROUND SURFACE ELEVATIONS MEASURED AT BORINGS COMPLETED IN MAY 2001.

LEGEND:

685 — GROUND SURFACE CONTOUR LINE
CONTOUR INTERVAL EQUALS 0.5-FOOT

A — A' CROSS SECTION ORIENTATION LINE

GeoTrans, Inc.
A TETRA TECH COMPANY

30' 15' 0 30' 60'

SCALE: 1" = 30'

CHECKED: CAS

DATE: 10/23/01

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

CROSS SECTION
ORIENTATION MAP

FIGURE
4A

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 10/23/01 LAB 1

Henry County
Campbell's Soup General

INTER-OFFICE COMMUNICATION

TO: Christopher Jones, Director

FROM: James Moseley, DHWM, NWDO

SUBJECT: Campbell Soup Company - CLOSURE PLAN APPROVAL

DATE: July 7, 2002

Attached for your review and signature is a letter for closure plan approval for Campbell Soup Company located at 1273 State Route 110, Napoleon, Ohio 43545. The closure plan received on October 31, 2001, and last revised on May 28, 2002, addresses the closure requirements of the following hazardous waste unit:

Former Location of Sludge Holding Pit - This unit is situated on top of a mound created from various fill material. The ~~area was once the location of a~~ sludge holding pit ~~which~~ held spent coating materials and solvents that were used in can manufacturing. The sludge was combined with sand to reduce moisture and hauled off site for disposal. Though the unit was dismantled, residual wastes from the process remain in the subsurface soils. The closure plan was submitted in response to the revised Director's Final Findings and Orders (DFF&Os) issued August 22, 2001.

DHWM staff has reviewed the plan accordance with Ohio Administrative Code (OAC) rule(s) 3745-66-11 AND 3745-66-12 and the DFF&Os and has determined that the proposal complies with Ohio EPA hazardous waste rules.

The public comment period for the plan ended on December 20, 2001. No public comments were received concerning this closure plan by Ohio EPA. Therefore, a responsiveness summary is not included. The remainder of the administrative record is available for your review in DHWM's Information Technologies and Technical Support Section.

If you have any questions regarding the closure plan approval, please call James Moseley at 419-373-3015. In accordance with OAC rule 3745-66-12, Ohio EPA is required to issue an action on this plan by August 26, 2002.

ec: James Moseley, DHWM, NWDO
Michael Terpinski, DHWM, NWDO

cc: Pamela Allen, DHWM, CO
Jeremy Carroll, DHWM, CO
James Moseley, DHWM, NWDO

Henry County
Campbell's Soup
General

GeoTrans, Inc.
A TETRA TECH COMPANY

LETTER OF TRANSMITTAL

710 Avis Drive, Ann Arbor, MI 48108 □ (734)213-2204 □ (734)213-5008 (FAX)

RECEIVED
JUL 05 2002
OHIO E.P.A.
N.W.D.O.

TO: Mr. Jan Tredway
Ohio EPA - NWDO
Division of Air Pollution Control
347 North Dunbridge Rd.
Bowling Green, OH 43402

DATE: 7/3/2002
RE: Campbell Soup Supply, Napoleon, OH
PROJ. NO. P896.103

We are sending you the following:

No. of Copies	Description
2	Request for Director's Discretionary Exemption

These are Transmitted as checked below:

- ☑ For approval
- ☐ For your use
- ☐ As requested
- ☐ For review and comment
- ☐ Approved as submitted
- ☐ Approved as noted
- ☐ Returned for corrections
- ☐ Other

On behalf of the Campbell Soup Supply Company, GeoTrans is submitting two (2) copies of a Request for Director's Discretionary Exemption. Please review and forward to the Director of the Ohio EPA. Thank You.

Signed: Craig Savage, C.P.G.

cc: James Moseley, Ohio EPA NWDO
Dr. Osman Aly, Campbell Soup
Michael Merringer, Campbell Soup

Transmitted by:
- ☐ First Class Mail
- ☑ Federal Express
- ☐ Courier
- ☐ Registered Mail
- ☐ UPS
- ☐ Other _____

Henry County
Campbell's Soup
General

RECEIVED
JUL 05 2002
OHIO E.P.A.
N.W.D.O.

REQUEST FOR DIRECTOR'S DISCRETIONARY EXEMPTION

REQUIREMENT TO OBTAIN AN INSTALLATION PERMIT

CAMPBELL SOUP SUPPLY, LLC
NAPOLEON, OHIO

Prepared for:

Campbell Soup Supply, LLC
1273 State Route 110
Napoleon, Ohio 43545

Prepared by:

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, Michigan 48108

July 3, 2002

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APPENDICES

A Excerpts from 1992 Emissions Test Report

B Calculation Sheet 1

C CAT Generator Engine Performance Data Specification

1. SITE HISTORY

Prior to 1981, spent coating materials and solvents from the former can manufacturing operation were stored in 55-gallon drums and used as a boiler fuel supplement (Boiler and Industrial Furnace 'BIF' Small Quantity Exemption). Semi-solid residues from the solvent drums were placed in a temporary holding pit and mixed with sand to reduce the moisture content. The temporary holding pit was constructed of local clay serving as containment dikes and an impermeable liner for the pit. The holding pit was active from 1981 until 1983. Prior to demolition of the pit the dried material was excavated and transported to a landfill for disposal. After demolishing the clay dikes the former holding pit was covered with 4- to 5-feet of additional fill material.

From 1999 through 2001 subsurface investigations were conducted in the former holding pit area. The subsurface investigations verified the presence of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) in the soils surrounding the former holding pit. Due to the presence of VOCs and SVOCs Campbell Soup entered into a Consent Order agreement with the Ohio EPA to implement a full RCRA Closure Plan for the former holding pit. The Closure Plan is intended to close and remediate the subject area.

A RCRA Site Closure Plan was submitted to the Ohio EPA on October 25, 2001. The Ohio EPA responded on April 23, 2001, and required re-submittal of the Closure Plan. The Closure Plan was revised and re-submitted to the Ohio EPA on May 24, 2002.

2. REQUEST FOR EXEMPTION

This report serves as a formal request to the Director of the Ohio EPA to grant a Discretionary Exemption per Ohio Administration Code (OAC) 3745-31-03 (3) (g). The following information is provided in support of this request:

- The Campbell Soup facility falls under the jurisdiction of the Northwest District Office (NWDO) of the Ohio EPA. While preparing the Closure Plan, the Air Quality Division of the NWDO was consulted about obtaining a permit to operate our proposed soil remediation system, utilizing a medium-temperature thermal desorption (MTTD) unit. We were told operation of the MTTD is exempt from a permit to install under OAC 3745-31-03 (4) (d). During the RCRA Closure Plan review, it was determined by the OEPA that this was not, in fact, an appropriate exemption under the referenced rule. This inaccurate information from the Ohio EPA caused Campbell Soup to lose valuable time in which a permit application could have been prepared and submitted.
- The MTTD is expected to be in operation for only 14-days, based on 12-hour days. The emissions from the MTTD will be a temporary single event.
- Campbell Soup has been proactive in addressing the contaminated soil problem to date. Campbell Soup is very interested in cleaning up the soil in a timely manner. Ideally the soil remediation would have occurred in May 2002, but the timeframes for OEPA reviews have been long, resulting in significant delays to this schedule. Campbell Soup is eager to remediate the soils this summer, and a delay to obtain a permit to install would prevent remediation during this calendar year.

The following sections contain additional evidence supporting this request.

3. PROPOSED SOIL REMEDIATION

Many options were evaluated for addressing the residual contaminants in the soil. Based on the site conditions, the available facilities at the plant, the relative cost of each option, the efficacy of each option, and future liabilities associated with each option, Campbell Soup is proposing to remediate the soils surrounding the former holding pit using medium-temperature thermal desorption (MTTD). This approach offers the following advantages:

- The former holding pit and its surrounding area consist of a mixture of cinders, sands, and clay. The clay rich nature of the contaminated area cannot support standard soil vapor extraction activities.
- The subsurface investigations have shown the extent of contamination to be irregular – mostly limited to more permeable cinder-filled soil layers in proximity to the pit. The MTTD will effectively treat all soils that are excavated.
- Long-term liabilities associated with leaving the contaminated soils in place or transferring them to another location will be reduced or eliminated.
- Long term monitoring requirements and/or permits will not be required.
- The approach focuses on destruction of the contaminants, rather than long-term containment or transfer to other media.
- The relative cost of implementation is less than the other approaches available for handling the proposed volumes of soil.
- Sufficient land and support facilities are available for an on-site MTTD operation.
- The MTTD approach provides the best protection against unknown future impacts to ecological systems or environmental pathways.

4. PROCESS DESCRIPTION

Soils slated for treatment will be loaded onto the conveyors and fed into the MTTD. Cohesive soils are passed through grinders and shredders that reduce the soil clumps to 2-inches in diameter or less. Soils enter a rotating kiln and are subjected to 550 deg. F. temperatures, sufficient to desorb all organic VOCs and SVOCs from the soil. Treated soils are quenched with water and cooled to 212 deg. F. before exiting the reactor. Treated and tested soil will be returned to the excavation as clean backfill.

Off-gasses from the treatment reactor are passed through a bag-house to recover fine particulates and then passed though a high temperature (1600 to 1750 deg. F.) afterburner to prevent discharge of contaminants to the air.

The MTTD remediation unit is designed to process up to 77 tons of soil per hour. However, based on the expected high moisture and clay content of the soils around the former holding pit, it is expected the MTTD will process between 30 and 40 tons of soil per hour at the Campbell Soup Napoleon site. It is estimated that 5,000 tons of soil will need to be treated after excavation. The MTTD will run a minimum of 12 hours/day, requiring use of the MTTD for 14 days.

5. REGULATORY APPLICABILITY

To process this request for an exemption from the requirement to obtain an installation permit, the NWDO conducted a review of state and federal regulations to identify applicable requirements for the proposed MTTD exemption from permitting. The following sections are intended to assist the Ohio EPA in determining if the cleanup operations meet all applicable air emission limits, rules, and policies.

An Emissions Test Report dated August 1992 was prepared by WW Engineering & Science, Inc., for the MTTD that is proposed for use at the Campbell Soup Napoleon site. Excerpts of the Emission Test Report can be found in Appendix A.

5.1 Fugitive Dust Management Plan

Per the best available technology (BAT) requirements all reasonably available control measures will be used to minimize or eliminate visible particulate emissions of particulate dust, such that the visible particulate emissions will not exceed 20% opacity as a three minute average, during the clean-up operations at this site. Fugitive dust could potentially be emitted during the following activities:

- Excavation of contaminated soils
- Truck loading and unloading of contaminated and treated soils
- Stock piling of clean and contaminated soils
- Loading and unloading of soil from the MTTD
- Re-filling the excavated area with clean soils

A water spray unit will be on-site during all cleanup operations. The periodic application of water will be used to suppress fugitive dust from the soil management activities. In addition, the MTTD is an entirely closed system. The soil enters and exits the MTTD on a conveyer belt. As the MTTD is a closed system, all particulate matter is directed to the baghouses. The 'clean' soil leaving the MTTD is at temperature in excess of 200 degrees Fahrenheit. To control the fugitive dust and re-hydrate MTTD desiccated soils, the soils are quenched with water prior to exiting the MTTD.

5.2 Particulate Emissions

The particulate emissions from the baghouse will not exceed 0.03 grains per dry standard cubic foot (DSCF) of exhaust flow. As shown in the Emissions Test Report the actual particulate emissions from the baghouse were 0.01 grains per DSCF, below the applicable standard of 0.03 grains per DSCF.

There will be no visible (0% opacity) particulate emissions from the baghouse. When the MTTD is running properly the only emissions from the baghouse are water vapor and residual particulate matter. If visible emissions are discharging from the baghouse the MTTD will be shut down.

OAC Rule 3745-17-11 (B) limits the mass flow rate of particulate emissions from the baghouse. Assuming a loading rate of 30 tons/hour the allowable rate of particulate emissions is 40.0 lbs/hour (Table II). Table 3.1 in the Emissions Test Report lists an average particulate emission rate of 0.7 lbs/hour using a loading rate of 22 tons/hour. Using the known data with the expected loading rate of 30 tons/hour we can predict the particulate emission rate will be 0.95 lbs/hr, well below the applicable particulate emission limitations of OAC Rule 3745-17-11(B).

5.3 Organic Compound Emissions

The controlled organic emissions from the afterburner will be less than one ton, exempting the MTTD from complying with the Ohio EPA air toxics policy. Based on an average organic soil concentration of 20,000 parts per billion (ppb), a destruction rate efficiency of 98.7% in the afterburner, and a daily run time for the MTTD of 12 hours the daily emission rate for organic compounds is 0.25 lbs/day.

A worst case scenario calculation was computed to ensure the organic emissions from the afterburner will be less than one ton. Forty-one (41) total VOCs and fifteen (15) total SVOCs were detected in the soils surrounding the holding pit. Using the highest detected concentration of the 41 VOCs and the 15 SVOCs the organic soil concentration would be 1,500,000 ppb. Assuming, very conservatively, that this concentration is uniform across the

site, the MTTD runs for 15 days at 40 tons/hour, and a destruction rate of 98.7% in the afterburner the total organic emissions would be 0.14 tons.

5.4 Generator and Sulfur Dioxide Emissions

Campbell Soup proposes to operate a 275 KW electric generator to supply energy to the proposed MTTD unit. The diesel fired generator can supply a maximum of 411 horsepower, with a maximum diesel heat input of approximately 2.84 million Btu/hour.

Maximum potential emissions of particulate matter (PM), carbon monoxide (CO), nitrogen oxides (NOx) and VOCs from the proposed generator were developed using manufacturer (CAT) performance testing data. Potential emissions of sulfur oxides, particulate matter less than 10 micorons (PM10) and diesel generated toxic air contaminants were developed using emission factors from US EPA's Factor Information Retrieval System (FIRE, Version 6.21) or US EPA's Compilation of Air Pollutant Emission Factors, AP-42, Section 3.3, "Gasoline and Diesel Industrial Engines", Table 3.3-1, USEPA, 10/1996. A copy of the manufacturer performance data and estimates of maximum potential emissions are presented in Calculation Sheet 1, found in Appendix B.

OAC Rule 3745-18-06 (G) limits emissions of sulfur dioxide from fuel fired sources in excess of 0.5 pounds per million Btu's of heat input. Emission estimates for sulfur dioxide from the proposed generator using diesel (No. 2 fuel oil) are estimated to be 0.84 lb/hr with a maximum heat input of approximately 2.84 million Btu heat input. This results in a value of 0.29 lb sulfur dioxide per million Btu heat input, which is below the applicable sulfur dioxide matter limitations of OAC Rule 3745-18-06 (G). Estimates of maximum potential sulfur dioxide emissions are presented in Calculation Sheet 1, found in Appendix B.

APPENDIX A

EXCERPTS FROM 1992 EMISSIONS TEST REPORT

EMISSIONS TEST REPORT

DETERMINATION OF NITROGEN OXIDES, SULFUR DIOXIDE, VOC, AND PARTICULATE EXHAUST EMISSIONS

Prepared for

M. L. CHARTIER, INC.
9195 MARINE CITY HIGHWAY
P.O. BOX 230069
FAIRHAVEN, MICHIGAN 48023

Prepared by

WW ENGINEERING & SCIENCE, INC.
39209 WEST SIX MILE ROAD, SUITE 110
LIVONIA, MICHIGAN, 48152

AUGUST 1992
PROJECT NO. 83379.00

Steven J. Broering
Assistant Manager

Reviewed by:

Mark J. Mullen
Manager, Air Quality

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Table No. 2.1
Process Data
Cedarapids LT64 Soil Remediation Unit
GM Plant 2, Building 26
August 18, 1992

Test	Time (24 Hour)	Process Parameter			
		Soil Exhaust Temperature (oF)	Filter House Exhaust Temperature (oF)	Afterburner Temperature (oF)	Soil Feed Rate (tph)
1	12:01-12:31/12:40-13:10	600	300	1580	23
2	13:55-14:25/14:34-15:04	600	300	1580	21
3	15:34-16:04/16:11-16:41	600	300	1580	23
	Average:	600	300	1580	22

* = Time not continuous due to port change

3.0 SUMMARY OF RESULTS

Results from the emissions testing are presented in Table Nos. 3.1 and 3.2. Table No. 3.1 presents emissions data in pounds per hour (lbs/hr) for each test conducted. Table No. 3.2 presents auxiliary results which includes gas flow rates in actual cubic feet per minute (acfm), standard cubic feet per minute (scfm), and dry standard cubic feet per minute (dscfm); gas temperature in degrees Fahrenheit (°F), moisture in percent (%), and gas composition of oxygen, carbon dioxide, and nitrogen.

The NO_X emission rate ranged from 1.3 to 2.1 lbs/hr and averaged 1.8 lbs/hr. The SO_2 emission rate ranged from 0.5 to 0.9 lbs/hr and averaged 0.7 lbs/hr. The VOC emission rate ranged from 0.3 to 0.8 lbs/hr as carbon and averaged 0.6 lbs/hr as carbon. The particulate emission rate ranged from 0.3 to 1.0 lbs/hr and averaged 0.7 lbs/hr.

The exhaust flow rates ranged from 34,619 to 36,347 acfm, averaging 35,708 acfm; from 9,887 to 10,485 scfm, averaging 10,241 scfm; and from 6,872 to 7,296 dscfm, averaging 7,085 dscfm. Exhaust-gas temperatures averaged 1,334°F. Exhaust-gas moisture averaged 30.7%. Exhaust-gas oxygen averaged 16.0%. Carbon dioxide averaged 4.9%.

Table No. 3.2
Auxiliary Results
Cedarapids LT64 Soil Remediation Unit
GM Plant 2, Building 26
August 18, 1992

Test	Time* (24 Hour)	Exhaust Flow: (ACFM)	(SCFM)	(DSCFM)	Temperature (oF)	Moisture (%)	Gas Composition % (O2)	(CO2)	(N2)
1	12:01-12:31/12:40-13:10	36,347	10,485	7,086	1,323	32.4	16.0	4.8	79.2
2	13:55-14:25/14:34-15:04	34,619	9,887	7,296	1,341	26.2	16.0	4.9	79.1
3	15:34-16:04/16:11-16:41	36,157	10,349	6,872	1,337	33.6	16.0	4.9	79.1
Avg.:		35,708	10,241	7,085	1,334	30.7	16.0	4.9	79.1

* = Time not continuous due to port change

.√W Engineering & Science
Air Quality Services

Particulate Sampling Train Calculations				
Client:	M.L. Chartier			
Project No:	83379.00			
Date:	8/18/92			
Source:	Thermal Oxidizer			
Test No:	1	2	3	Avg.
Pitot Cal. Factor	0.84	0.84	0.84	
Meter Calibration Factor:	0.99216	0.99216	0.99216	
Stack Length, inches:	0	0	0	
Stack Width, inches:	0	0	0	
Stack Diameter, inches:	48	48	48	
Nozzle Diameter, inches:	0.46	0.46	0.46	
Barometric Pressure, inches Hg:	29.05	29.05	29.05	
Static Pressure in Stack, Inches H2O:	-0.18	-0.18	-0.18	
Duration of Sample, minutes	60	60	60	
Meter Leak Rate:	0	0	0	
Meter Start Volume:	899.20	942.60	984.61	
Meter Final Volume:	941.74	984.04	1026.74	
Average Meter Pressure, Inches H2O:	1.63	1.479	1.517	
Average Meter Temperature, degrees F:	88	80.9	84.9	
Average Sqrt. Velocity Pressure:	0.435	0.418	0.43	
Stack Gas Temperature, degrees F:	1323	1341	1337	1334
% Carbon Dioxide:	4.8	4.9	4.9	4.9
% Oxygen:	16.0	16.0	16.0	16.0
% Carbon Monoxide:	0.0	0.0	0.0	0.0
Liquid Volume Collected, milliliters:	402.8	294.1	423	373.3
Total Weight of Particulate, Milligrams:	41.8	13.8	30.4	28.7
Sample Train Calculations				
Meter Volume, Actual:	42.54	41.44	42.13	42.04
Meter Volume, STP:	39.80	39.26	39.63	39.56
Volume of Water Vapor Condensed:	19.09	13.94	20.05	17.69
Total Gas Sampled:	58.89	53.20	59.68	57.26
% Moisture:	32.42	26.20	33.60	30.74
Area of Stack, Square Feet:	12.57	12.57	12.57	12.57
% Excess Air at Test Location:	325.9	327.7	327.7	327.1
Density Dry at STP:	0.0760	0.0761	0.0761	0.0761
Density Wet at STP:	0.0665	0.0683	0.0661	0.0670
Density Wet at Stack Cond:	0.0192	0.0195	0.0189	0.0192
Molecular Weight, lb/lb-Mole	29.42	29.43	29.43	29.43
Isokinetic, %	101.92	97.65	104.64	101.41
Velocity and Flow Calculations				
Average Stack Gas Velocity FPM:	2,892	2,755	2,877	2,842
Stack Gas Flow Rate, ACFM:	36,347	34,619	36,157	35,708
Stack Gas Velocity, SCFM:	10,485	9,887	10,349	10,241
Stack Gas Velocity, DSCFM:	7,086	7,296	6,872	7,085
Pounds of Gas Sampled, Dry	3.026	2.987	3.014	3.009
Pounds of Gas Sampled, Wet	3.914	3.635	3.947	3.832
Particulate Calculations:				
Grains Per DSCF:	0.0162	0.0054	0.0118	0.0111
LBS/1000 LBS GAS, ACTUAL	0.0235	0.0084	0.0170	0.0163
LBS/1000 LBS GAS, DRY	0.0235	0.0084	0.0170	0.0163
LBS/HR:	0.98	0.34	0.70	0.67

Campbell Soup Supply Company
Calculation Sheet 1
Emission Estimates for Generator

	DIESEL				
	CAT Testing Data 100% Load	AP-42		Diesel Potential Emissions	
Pollutant	Emission Factor (lb/hr)	Emission Factor (lb/MMBTU)	Emission Factor (lb/gal)	Potential Hourly Emissions (lb/hr)	Potential Annual Emissions (ton/year)
CRITERIA POLLUTANTS					
VOC (HC)	0.15	0.36	0.05	0.15	0.08
NOx	8.79	4.41	0.61	8.79	4.43
CO	1.82	0.95	0.13	1.82	0.92
SOx	---	0.29	0.04	0.84	0.42
PM (Filterable)	0.57	---	---	0.57	0.29
PM-10		0.31	0.04	0.90	0.45
TOXIC AIR CONTAMINANTS					
Acetaldehyde	---	7.67E-04	1.06E-04	2.22E-03	1.12E-03
Acrolein	---	9.25E-05	1.28E-05	2.67E-04	1.35E-04
Benzene	---	9.33E-04	1.29E-04	2.69E-03	1.36E-03
1,3-Butadiene	---	3.91E-05	5.40E-06	1.13E-04	5.69E-05
Formaldehyde	---	1.18E-03	1.63E-04	3.41E-03	1.72E-03
Propylene	---	2.58E-03	3.57E-04	7.45E-03	3.76E-03
Toluene	---	4.09E-04	5.65E-05	1.18E-03	5.95E-04
Xylenes	---	2.85E-04	3.94E-05	8.23E-04	4.15E-04
Non-Carcinogenic PAHs	---	1.65E-04	2.27E-05	4.75E-04	2.40E-04
Carcinogenic PAHs	---	3.43E-06	4.74E-07	9.91E-06	5.00E-06
Total PAHs	---	1.68E-04	2.32E-05	4.85E-04	2.45E-04
Total Toxic air contaminants					9.64E-03

Diesel consumption rate is 20.9 gallons per hour per Reference 3.
Proposed Diesel Limitation of 21,067 gallons per year.

Assumptions:
1) SCC for diesel combustion is 20400402.
2) NOx, CO, VOC(HC), and particulate matter (PM) potential emissions for diesel based on generator manufacturer (CAT) testing data. Data based on operating at 100% load.
3) AP-42 TOC emission factors represents sum of the exhaust, evaporative, crankcase, and refueling emission factors from Reference 1).
4) Diesel Fuel has a density of 7.05 lb/gal.
5) Potential emissions estimated based on an operating schedule of twenty four (24) hrs/day, seven (7) days/week for six (6) weeks.
6) Diesel heat content of 19,300 Btu/lb per Reference 1).
7) Non-carcinogenic PAHs include: acenaphthene, acenaphthylene, anthracene, benzo(g,h,i)perylene, fluoranthene, fluorene, naphthalene, phanethrene & pyrene.
8) Carcinogenic PAHs include: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene & indeno(1,2,3-cd)pyrene.

Equations:
1) AP-42 Emission Factor (lb/gal) = AP-42 Emission Factor (lb/MMBtu) x [1 MMBtu/1,000,000 Btu] x [heat content (Btu/lb)] x [density (lb/gal)]
3) Diesel NOX, HC, CO and PM Potential Hourly Emissions (lb/hr) = CAT Testing Results (lb/hr)
4) Diesel SOx and PM-10 Uncontrolled Potential Hourly Emissions (lb/hr) = Emission Factor (lbs/gal) x Engine fuel consumption rate (gal/hr)
5) Diesel Potential Annual Emissions (ton/year) = Potential Hourly Emissions (lb/hr) x 24 hrs/day x 7 days/week x 6 weeks x 1 ton/2000 lb
6) Maximum Potential Emissions = Maximum of Gasoline or Diesel Potential Emissions
7) Maximum Annual Fuel Usage (gal/yr) = Engine fuel consumption rate (gal/hr) x 8,760 hr/yr x Maximum number of engines (11)

References:
1) AP-42, Section 3.3, "Gasoline and Diesel Industrial Engines", Table 3.3-1, USEPA, 10/1996.
2) FIRE Database, Version 6.21, USEPA.
3) CAT Engine Performance Data, June 26, 2002. Refer to Appendix C.

-GKGPE1- TMI - ENGINE AND COMP PERF DATE: 06/26/02
9 - PACKAGE SET PERFORMANCE TIME: 07:52:10
3406C DI TA JW DRY MANF TURBO QTY 1 HYDRA GOV
M2266-01 PGS PRIME 60 HERTZ EXH STK DIA 5.0 IN
EN 275.0 W/F EKW 285.0 W/O F EKW W/F BHP 412 W/O F BHP @ 1800 RPM

NFO CODE 05 - EMISSIONS DATA * * * * * RATED SPEED * * * * STANDARD TIMING
NOT TO EXCEED DATA"

GEN PWR EKW	% LOAD	ENG PWR BHP	NOX (AS NO2) * * * * * * * *	CO	TOTAL HC LB/HR	PART MATTER * * * * * * * *	IN EXH O2 (DRY) (VOL) %	SMOKE OPAC %	BOSCH SMOKE NO.
275.0	100	411.0	8.79	1.82	.15	.570	10.90	3.4	1.70
206.3	75	310.2	6.83	.77	.14	.320	11.80	1.5	1.40
137.5	50	212.1	4.58	.63	.14	.260	13.30	1.1	1.43
68.8	25	116.3	2.45	.73	.11	.220	16.30	1.3	1.48
27.5	10	55.8	1.34	.80	.15	.180	18.60	1.1	1.47

PRESS <ENTER> FOR ADDITIONAL DATA
NEXT TRAN: INFO CODE (05) UNIT TYPE (E) NOM ( )
OTHER METRIC DISPLAYS: MG/NM3 ( ) PPM ( ) G/HP-HR ( )
ILP-F1 ACF-F3 PGM-F4 SEL-F5 IDX-F9

GKGPE2- TMI - ENGINE AND COMP PERF DATE: 06/26/02
9 - PACKAGE SET PERFORMANCE TIME:
3406C DI TA JW DRY MANF TURBO QTY 1 HYDRA GOV
M2266-01 PGS PRIME 60 HERTZ EXH STK DIA 5.0 IN
GEN 275.0 W/F EKW 285.0 W/O F EKW W/F BHP 412 W/O F BHP @ 1800 RPM

INFO CODE 05 - EMISSIONS DATA * * * * * RATED CONDITIONS * * STANDARD TIMING
"NOMINAL DATA"
AT RATED:

WET EXHAUST MASS	3724 LB/HR
WET EXHAUST FLOW (984 DEG F STACK TEMP)	2285 CFM
WET EXHAUST FLOW RATE (32 DEG F AND 29.98 IN HG)...	778 STD CFM
DRY EXHAUST FLOW RATE (32 DEG F AND 29.98 IN HG)...	711 STD CFM
FUEL FLOW RATE	20.9 GAL/HR

PRESS <ENTER> TO CONTINUE
NEXT TRAN: INFO CODE (06) UNIT TYPE (E)
HELP-F1 ACF-F3 PGM-F4 SEL-F5 IDX-F9

Henry County
Campbell's Soup Vendal

Ohio EPA

State of Ohio Environmental Protection Agency

Legal Office Facsimile

Lazarus Government Center
P.O. Box 1049, 122 S. Front Street
Columbus, Ohio 43216-1049

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PLEASE NOTE: Jim: Here's a copy of the amended DFF&Os for Campbell Soup. Give me a call if you have any questions.

If this transmission is received in error by anyone other than the intended entity, PLEASE contact the Ohio EPA, Legal Office at (614) 644-3037, IMMEDIATELY

OHIO E.P.A.
AUG 22 2001
ENTERED DIRECTOR'S JOURNAL

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Campbell Soup Company
World Headquarters
1 Campbell Place
Camden, NJ 08103-1799

and

Campbell Soup Supply Company L.L.C.
12 773 State Route 110
Napoleon, OH 43545

Respondents

Director's Final Findings and Orders

AMENDMENT TO DIRECTOR'S FINAL FINDINGS AND ORDERS OF OCTOBER 18, 2000

PREAMBLE

It is hereby agreed by and among the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders (Orders) are issued to the Campbell Soup Company and Campbell Soup Supply Company L.L.C. (Respondents) pursuant to the authority vested in the director of the Ohio Environmental Protection Agency (Ohio EPA) under § 3734.13 and § 3745.01 of the Ohio Revised Code (ORC).

II. PARTIES BOUND

These Orders shall apply to and be binding upon the Respondents, their assigns and successors in interest. No changes in ownership relating to the Facility will in any way alter the Respondents' responsibilities under these Orders. The Respondents' obligations under these Orders may be altered only by the written approval of the director of Ohio EPA.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency
By: _____ Date: 8-22-01

III. DEFINITIONS

1. Unless otherwise stated, all terms in these Orders shall have the same meaning as used in the Director's Final Findings and Orders of October 18, 2000, and as used in Chapter 3734. of the ORC and the regulations promulgated thereunder.

2. The effective date of these Orders is the date these Orders are entered into the Ohio EPA director's journal.

IV. FINDINGS OF FACT

The Director of Ohio EPA has determined the following findings of fact:

1. On October 18, 2000, the director issued Director's Final Findings and Orders to Respondents. All findings of fact made in the October 18, 2000, Director's Final Findings and Orders are hereby incorporated by reference.

2. The October 18, 2000 Director's Final Findings and Orders required Respondents to, *inter alia*, submit to Ohio EPA for review and approval a closure plan to close the Pits area at the Facility where hazardous waste was disposed of without a permit.

3. On November 2, 2000, Respondents submitted to Ohio EPA a closure plan as required by Order No. 1 of the October 18, 2000, Director's Final Findings and Orders.

4. By letter dated March 30, 2001, Respondents submitted to Ohio EPA a request to withdraw the closure plan due to technical deficiencies contained within the closure plan. Respondents also requested an extension of time in which to submit a revised closure plan correcting technical deficiencies. In support of the extension request, Respondents have committed to working closely with Ohio EPA to correct all of the technical deficiencies prior to resubmitting to Ohio EPA the closure plan.

V. ORDERS

The Respondents shall achieve compliance with Chapter 3734. of the ORC and the regulations promulgated thereunder according to the following compliance schedule:

1. The October 18, 2000 Director's Final Findings and Orders are amended as follows:

   a. Order No. 1 is superseded and replaced with the following new Order No. 1:

      Respondents shall close the Pits area at the Facility where hazardous waste was disposed of without a permit, in accordance with OAC rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20. Within 60 days after the effective date of these Orders, Respondents shall submit to Ohio EPA a closure plan, prepared in accordance with OAC rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20.

   b. Order No. 5 is superseded and replaced with the following new Order No. 5:

      Within 60 days after the effective date of these Orders, Respondents shall submit to Ohio EPA a closure cost estimate and documentation demonstrating that Respondents have established financial assurance and liability coverage for closure in accordance with OAC rules 3745-55-42/3745-66-42 through 3745-55-47/3745-66-47.

2. Except as noted in these Orders, all terms and conditions of the October 18, 2000 Director's Final Findings and Orders remain valid and in effect.

VI. TERMINATION

The Respondents' obligations under these Orders shall terminate when the Respondents demonstrate in writing and certify to the satisfaction of Ohio EPA that all obligations under these Orders have been performed and Ohio EPA's Division of Hazardous Waste Management acknowledges, in writing, Ohio EPA's acceptance of this demonstration and certification.

This certification shall be submitted by the Respondents and shall be signed by a responsible official of the Respondents. The certification shall make the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

For purposes of these Orders, a responsible official is a corporate officer who is in charge of a principal business function of the Respondents.

VII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a signatory to these Orders, for any liability arising out of or relating to the operations of the Respondents' Facility.

VIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. Nothing in these Orders shall be construed as waiving or compromising in any way the applicability and enforcement of any other statutes or regulations applicable to the Respondents' operation of the Facility. Ohio EPA reserves all rights and privileges except as specified herein. Respondents reserve all rights and defenses which may be available at law or in equity and under any statute, regulation or common law applicable to Respondents' operation of the Facility, except as specified herein.

IX. NOTICE

All documents demonstrating compliance with these Orders, and other documents required under these Orders to be submitted to Ohio EPA, shall be addressed to:

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager
347 North Dunbridge Road
Bowling Green, OH 43402

and Ohio EPA Central Office at the following address:

For mailings, use the post office box number:

Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
P.O. Box 1049
Columbus, Ohio 43216-1049

For deliveries to the building and courier services:

Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

All documents to be submitted to Respondents under this Order shall be addressed to:

Dr. Osman Aly
Environmental Consultant
Campbell Soup Company
Campbell Place
Camden, New Jersey 08103

and

Faith R. Greenfield, Esq.
Campbell Soup Company
Campbell Place
Camden, New Jersey 08103

X. RESERVATION OF RIGHTS

Nothing contained herein shall be construed to prevent Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking administrative, legal or equitable action as deemed appropriate and necessary, including seeking penalties against the Respondents for noncompliance with these Orders. Nothing contained herein shall be construed to prevent Ohio EPA from exercising its lawful authority to require the Respondents to perform additional activities, including closure of additional hazardous waste management units at the Facility, pursuant to ORC Chapter 3734. or any other applicable law in the future. Nothing herein shall restrict the right of the Respondents to raise any administrative, legal or equitable claim or defense with respect to such further actions which Ohio EPA may seek to require of the Respondents. Nothing in these Orders shall be construed to limit the authority of Ohio EPA to seek relief for violations not addressed in these Orders.

XI. SIGNATORIES

Each undersigned representative of a signatory to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such signatory to this document.

IT IS SO ORDERED:

Christopher Jones
Director

AUG 2 2 2007
Date

XII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, and, subject to Section X of these Orders, in lieu of further enforcement action by Ohio EPA for only the violations addressed in these Orders, the Respondents agree that these Orders are lawful and reasonable, that the times provided for compliance herein are reasonable and that the Respondents agree to comply with these Orders. Subject to Section X., above, compliance with these Orders shall be a full accord and satisfaction for the Respondents' liability for the violations cited herein.

The Respondents hereby waive the right to appeal the issuance, terms and service of these Orders and hereby waive any and all rights they might have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and the Respondents agree that in the event that these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, the Respondents retain the right to intervene and participate in such appeal. In such an event, the Respondents shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

IT IS SO AGREED:

Campbell Soup Company

_____ 8/9/01
Date

Vice President Comptroller
Title

Campbell Soup Supply Company L.L.C.

_____ 8/9/01
Date

Vice President - Treasurer
Title

Ohio Environmental Protection Agency

_____ AUG 2 2 2001
Christopher Jones Date
Director

G:\campbells modified formated 7-2-01.wpd (9/18/2000)

Henry County
Campbells Soup General

INTER-OFFICE COMMUNICATION

TO: James Moseley, Remediation Group, DHWM-NWDO

FROM: John Weaver through Geoff Leking, Geologist 4, DDAGW-NWDO

DATE: June 19, 2002

SUBJECT: Campbell Soup Company, Henry County, OHD 005 419 171.

[Revised] RCRA Site Closure Plan - Former Holding Pit, document dated May 24, 2002; GeoTrans, Inc. Received by Ohio EPA (NWDO) on May 28, 2002.

Introduction:

The Division of Hazardous Waste Management (DHWM) has requested that the Division of Drinking and Ground Waters (DDAGW) perform a review of the above referenced document.

The Campbell Soup Company (Campbells) is located in north-central Henry County at 1273 State Route 110, Napoleon, Ohio. Campbells occupies approximately 63 acres at the above address and produces, packages, and distributes food goods.

Campbells produced containers (cans) for food goods in an onsite manufacturing facility until July 1998. The steel cans were coated with a two-phase material to act as a rust inhibitor and to increase the durability of the cans. Excess and waste coating material, existing in a semi-solid state, and also spent solvents were periodically dumped into two onsite holding pits at Campbells from 1981 to 1983. These holding pits were constructed on top of an elevated area from onsite dirt obtained from excavation activities performed throughout the Campbells site. The holding pits were reportedly lined with natural clay and compacted prior to emplacing the wastes. The total dimensions of the holding pits were approximately 20 feet by 35 feet by 2-3 feet deep. Wastes contained in the pits were excavated in 1983, mixed with sand, and disposed of offsite at the Evergreen Landfill. Constituents of concern (COCs) associated with the holding pits are volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs).

Director's Final Findings and Orders were issued to Campbells on October 18, 2000 and again on July 25, 2001 and required the facility in part, to close the former holding pits in accordance with OAC Rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20. Campbells subsequently submitted a RCRA closure plan for the former holding pits on October 31, 2001. The plan was reviewed and found to be inadequate as noted in a notice of deficiency (NOD) dated April 23, 2002 from Ohio EPA to Campbells.

Campbells has submitted a revised closure plan for the former holding pits dated May 24, 2002 which is the subject of this review.

Compliance Issues:

There are no compliance issues associated with this review.

Conclusions:

1. Campbells should review Comments 1 through 8 below to assist them in completing closure of the former holding pits (RCRA unit).

2. For questions, please contact John Weaver, Division of Drinking and Ground Waters, Northwest District Office, Ohio EPA, at (419) 373-3098. Any written correspondence should be sent to James Moseley, Division of Hazardous Waste Management, Northwest District Office, Ohio EPA, 347 North Dunbridge Road, Bowling Green, OH, 43402.

Comments:

Note: Ohio EPA comments on the Campbell Soup Company (Campbells) October 25, 2001 closure plan for the former holding pits are provided below in italics for reference. For the sake of brevity, the italicized Ohio EPA comments below have been abbreviated.

1. *Overall, Campbells has failed to provide a sufficient discussion of the site-specific geology and hydrogeology of the site in Sections 2.1, 3.0, 4.1, 4.2, 4.3, 4.6, and 4.8 of the closure plan. Campbells should include additional text/information in one all-encompassing section of the closure plan to include the following items....*

   Campbells has included additional text in Sections 4.1 and 4.3, and Appendices E, F, and G of the revised closure plan to further characterize the geology and hydrogeology of the former holding pits (RCRA unit) and surrounding areas. Campbells notes in Sections 4.1 and 4.3 that additional site-specific geological and hydrogeological data will be collected and presented to Ohio EPA during installation of the three shallow monitoring wells around the perimeter of the RCRA unit as part of a limited ground water investigation in support of closure. This issue has been adequately resolved.

2. *The following table notes selected analytical results from Geoprobe soil screening samples collected from borings PB-01-33, 34, 35, 45, and 46 (refer to Tables 1 and 2 of the closure plan)....*

It is unclear from a review of the closure plan text, data tables, and maps which Geoprobe borings were installed into natural unconsolidated materials outside of the mound area. It is also unclear what the corresponding soil analytical results are for these borings. Campbells shall include the appropriate text in the closure plan to identify those Geoprobe borings installed outside of the mound area and to reference the corresponding soil analytical results for the borings.

Campbells has appropriately revised Sections 4.6, 4.7, and 4.8 of the revised closure plan to state that the lithology of the natural unconsolidated zone beneath and adjacent to the RCRA unit is unknown. Although not explicitly stated, it can be gleaned from reading revised portions of Sections 4.6, 4.7, and 4.8 that no Geoprobe borings have been completed to date in the natural unconsolidated zone. If another iteration of the closure plan is necessary to obtain approval from Ohio EPA, then the agency recommends that Campbells provide clear and explicit language in a revised plan which states that no Geoprobe borings completed to date have been installed within the natural unconsolidated zone beneath and adjacent to the RCRA unit. Campbells will perform a limited shallow ground water investigation at the RCRA unit per Ohio EPA direction to resolve this issue.

Campbells states in Section 4.6, page 11, third paragraph, that 5 of the 37 Geoprobe advanced in May 2001 contained perched transient water within the RCRA unit. However, Section 4.5, page 8, second paragraph states that 31 Geoprobe borings were completed during the May 2001 investigatory effort. Ohio EPA requests that Campbells resolve this discrepancy in numbers of Geoprobe borings completed at the RCRA unit.

Figure 4B of the closure plan notes soil analytical results for Geoprobe boring PB-01-34 at three different depth intervals (8-9 feet, 21-22 feet, and 25-26 feet). Figure 4B also analytical results from a depth interval of 11.5-16.5 feet. This latter interval corresponds to the well screen installed at Geoprobe boring PB-01-34 and the analytical data represents ground water and not soil. Figure 4B should be revised appropriately.

Campbells has appropriately revised Figure 4B per the comment above. This issue has been adequately resolved.

Geoprobe boring PB-01-43 is not labeled on all figures included in the closure plan. Campbells shall appropriately revise the figures to clearly designate the boring.

Campbells has included Geoprobe boring PB-01-43 on all applicable figures in the revised closure plan. This issue has been adequately resolved.

3. *The following table notes selected analytical results from Geoprobe ground water screening samples collected from borings PB-01-33, 34, 35, 45, and 46 (refer to Tables 1 and 2 of the closure plan).... As such, Campbells concludes that shallow ground water in the natural unconsolidated zone cannot be affected by the mound and is not a completed exposure pathway for the purposes of the former holding pit closure investigation (Section 4.8, page 12).*

Ohio EPA disagrees with Campbells' conclusion that the potential for impacts to natural shallow ground water is extremely low based upon the following items...:

Therefore, in order to adequately characterize any affects to shallow ground water in the natural unconsolidated zone from the mound/former holding pit area, Campbells shall install a minimum of three monitoring wells around the downgradient periphery of the mound in the natural unconsolidated zone so that the well screens intersect the first encountered saturated zone. ...

During well drilling, Campbells should collect continuous split-spoon soil samples for description and fixed laboratory analysis of VOCs and SVOCs. The wells should be installed to a maximum depth of 20 feet bls...Campbells shall sample the wells for VOCs per Method 8260B and SVOCs per Method 8270 and submit them to a fixed laboratory for analyses. ... If no organic COCs are detected in the shallow monitoring wells downgradient of the mound above corresponding practical quantitation limits (PQLs) which provide the lowest limit of detection for the corresponding analytical method as specified in USEPA SW-846 Methods, then it can be concluded that no COCs have leached from the mound and impacted shallow ground water in the natural unconsolidated zone for the purpose of demonstrating clean closure of the former holding pits (refer to Comment 10 below for additional information).

Campbells shall install three shallow monitoring wells around the perimeter of the RCRA unit to determine if any impacts have occurred to any shallow saturated zones within the natural unconsolidated zone adjacent to the RCRA unit per Ohio EPA direction (Sections 14.0 and 14.1). Monitoring well locations are provided on Figure 6 and are amenable to Ohio EPA. Campbells has provided

brief, but adequate descriptions of the installation, development, sampling, and surveying of the three proposed monitoring wells. Campbells and their contracted consultant, GeoTrans, Incorporated, (GeoTrans), are reminded that they must follow standard industry protocols when performing the above activities and as such, should include an appendix in the closure certification document noting all those sampling and analysis methods followed during the closure investigation. If a second revision of the closure plan is required by Ohio EPA, then Campbells should include the sampling and analysis methods as an appendix in the document as described above. Campbells and GeoTrans are also reminded that appropriate well construction, boring, development, and sampling logs as well as all other pertinent monitoring well information and ground water analytical results should be generated and compiled during the closure investigation and submitted to Ohio EPA for review.

4. *Ohio EPA DDAGW disagrees with Campbells' assertion that there is no possibility for soil contamination to leach to the natural unconsolidated saturated zone (Section 4.6, page 9)....*

   Campbells has appropriately revised Section 4.6 of the revised closure plan to provide for a limited ground water investigation to support closure of the RCRA unit per Ohio EPA direction. This issue has been adequately resolved.

5. *It is premature for Campbells' to state that no natural shallow ground water is impacted beneath the unit as they have not provided any screening or confirmational analytical data in the closure plan to confirm this (Section 4.6, page 9). Upon completion of the additional closure investigation activities noted in Comment 5 above, Campbells can then evaluate the quality of natural shallow ground water downgradient of the mound.*

   Campbells has appropriately revised Section 4.6 of the revised closure plan to resolve the above comment. Campbells will perform a limited shallow ground water investigation at the RCRA unit per Ohio EPA direction as discussed in Comment 3 above. This issue has been adequately resolved,.

6. *Campbells states in several sections of the closure plan, including Section 4.7, page 11, that clay-rich native soils occurring underneath the mound act as a low permeability barrier to continued vertical migration. The closure plan does not clearly state which Geoprobe boring installed on top of mound, or at any other location for that matter, actually penetrates native soil and what the lithology of the native soils are. Campbells should provide a discussion in the closure plan as to which Geoprobe borings penetrate natural grade, what the lithology of the*

natural grade unconsolidated zone is, soil and ground water analytical data from the unconsolidated zone, and data to support the theory that the lithology of the unconsolidated zone inhibits vertical migration of COCs from the mound.

Refer to the Ohio EPA response to Comment 2 above.

7. *It is premature for Campbells to conclude that there are no potential risk-related contacts to COCs within shallow ground water in the natural unconsolidated zone until this zone is adequately investigated per Comment 5 above (Section 13.0, page 25). If the installation and sampling of the monitoring wells indicates that shallow ground water within the natural unconsolidated zone is impacted by COCs migrating from the mound, then Campbells will be required to adequately delineate the full rate, extent, and concentrations of COCs in the zone per OAC Rules 3745-54-90(A)(2)/3745-65-93(D)(4) and implement an appropriate ground water monitoring program per OAC Rules 54-90 to 99/3745-65-90(D)....*

   Campbells has appropriately revised Section 13.0 of the revised closure plan to resolve the comment above. Refer to the Ohio EPA response to Comment 3 above.

8. *If Campbells determines that shallow ground water within the natural unconsolidated zone has been impacted by COCs, clean closure of the former holding pit via the ground water pathway may be demonstrated by removal/decontamination or by performing a site-specific risk assessment. These two closure alternative are briefly summarized below. ...*

   Campbells has revised Section 14. 1 of the revised closure plan to state that if shallow ground water in the natural unconsolidated zone adjacent to the RCRA unit is determined to be impacted by the RCRA unit, then they will submit a ground water pathway closure plan to Ohio EPA for review and approval. This issue has been adequately resolved.

ec: Michael Terpinski, DHWM-NWDO
James Moseley, DHWM-NWDO
pc: Jeff Patzke, DDAGW-CO
DDAGW-NWDO File

Work ID: 5000002276

Henry County
Campbell's Soup
General

GeoTrans, Inc.
A TETRA TECH COMPANY

FAX TRANSMISSION COVER SHEET

710 Avis Drive
Ann Arbor, MI 48108
(734) 213-2204
Fax: (734) 213-5008

To: James Moseley
Company or Division: Ohio EPA
Fax No.: 419 352 8468
From: Tesha Yielding
Remarks:

Date: 6/17/02
No. Of Pages: 2
(Including Cover Sheet)
Phone No.:

Enclosed is COC # 0138.

IF YOU DO NOT RECEIVE THE NUMBER OF PAGES LISTED ABOVE, PLEASE CALL.

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710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0138

CLIENT: Campbell Soup
PHONE NO.:
ADDRESS: Napoleon, OH
SAMPLER:
PROJECT NO.:
PROJECT NAME:
CLIENT CONTACT:

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) VOCs	SVOCs	REMARKS
1	PB-01-36	5/23/01	14:55		X	Soil 4-5'		X	X	31
2	PB-01-36	5/23/01	14:40		X	Soil 8-9'		X	X	32
3	PB-01-36	5/23/01	14:45		X	Soil 12-13'		X	X	33
4	PB-01-37	5/23/01	15:00		X	Soil 4-5'		X	X	34
5	PB-01-37	5/23/01	15:10		X	Soil 8-9'		X	X	35
6	PB-01-37	5/23/01	15:20		X	Soil 12-13'		X	X	36
7	PB01-38	5/23/01	16:45		X	Soil 7-8'		X	X	37
8	PB-01-38	5/23/01	17:01		X	Soil 11-12'		X	X	38
9	PB 01-38	5/23/01	17:05		X	Soil 13-14'		X	X	39
10										

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-6	[signature]	[signature]	05/23/01	1140
2					
3	7-9	[signature]	[signature]	05/23/01	1740
4					

REMARKS

SAMPLER'S SIGNATURE: [signature]

JUN.17.2002 2:40PM HSG ANN ARBOR NO.218 P.2/2

Henry County
Campbell's Soup
General

GeoTrans, Inc.
A TETRA TECH COMPANY

FAX TRANSMISSION COVER SHEET

710 Avis Drive
Ann Arbor, MI 48108
(734) 213-2204
Fax: (734) 213-5008

To: James Mosby
Date: 6/12/02
Company or Division: OEPA
No. Of Pages: 2.
(Including Cover Sheet)
Fax No.: 419-352-8468
Phone No.:
From: Craig Savage
Remarks:

James,

attached is a phone conversation record relating to the air permit issue.

If you have questions, please call.

Craig

IF YOU DO NOT RECEIVE THE NUMBER OF PAGES LISTED ABOVE, PLEASE CALL.

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GeoTrans, Inc. A TETRA TECH COMPANY

PHONE CONVERSATION RECORD

Date: 5/21/02 Project No.: P8916.101

Time: 2 pm Project Name: Campbell

Staff Member: Tesha Fielding ☒ Placed Call ☐ Received Call

Conversation with:

Name: John Budge Phone #: (419) 373 3112 Fax #: ( )

Company / Address: Ohio EPA - air quality

Subject of call: Permits needed for MTTD?

NOTES:

I explained to John what we wanted to do at the Campbell site - run a medium temperature thermal desorption unit to remediate ± 3000 tons of soil contaminated with VOCs + SVOCs. He asked how long we would be on-site - I said approx 2 weeks. He thought, due to the short time the MTTD will be on-site, and because all remediation will be done on-site, that we would be exempt from an air permit (possibly under the new PTI exemption?) He will check with his supervisor + get back to me.

5/22/02 John called back. He explained we were exempt, as long as emissions of organics are less than 15 lbs/day, under Ohio Administrative Code Chapter 3745-31-03 (A)(d) Permit to Install exemptions - permit by rule exemptions. He also mentioned no letter from the director is needed.

FOLLOW-UP ACTION:					
Follow-up By:			Originator's Initials:		
Route To:					☐ File

Henry County
Campbell's Soup
General

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

May 23, 2002

RECEIVED
MAY 28 2002
Ohio E.P.A.
N.W.D.O.

Via Airborne Express

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
Attn: Pamela Allen, Manager, Information Technologies and Technical Support Section
P.O. Box 1049
Columbus, Ohio 43216-1049

And

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
Attn: James Moseley
Division of Hazardous Waste Management
347 Dunbridge Road
Bowling Green, Ohio 43402

RE: Revised RCRA Closure Plan
Campbell Soup Company
OEPA ID #OHD005419171

Dear Mr. Moseley:

Enclosed please find the revised RCRA closure plan for the former sludge pit unit located at Campbell Soup Company's facility located at 1273 State Route 110, Napoleon, Ohio.

The revised closure plan is submitted as requested in your letter of Notice of Deficiency dated April 23, 2002. The revised closure plan addressed all the areas indicated in the deficiency comments. The revised plan was prepared in accordance with the editorial protocol outlined in your letter.

We would appreciate your review and approval of the closure plan at your earliest convenience. Please call me at 856-968-4423 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

Robert T. Shober Sr.

Osman M. Aly, Ph.D.
Consultant

OMA/lgm

Cc: C. del Sol
F. Greenfield
M. Maringer
R. Shober
C. Savage, GeoTrans, Inc.

Henry County
Campbell's Soup
General

GeoTrans, Inc.
A TETRA TECH COMPANY

LETTER OF TRANSMITTAL

710 Avis Drive, Ann Arbor, MI 48108 □ (734)213-2204 □ (734)213-5008 (FAX)

RECEIVED
MAY 2 2 2002
OHIO E.P.A.
N.W.D.O.

TO: James Moseley
Ohio EPA - DHWM
347 North Dunbridge Road
Bowling Green, OH 43402

DATE: 5/16/2002
RE: Napoleon OH Plant, Closure Plan
PROJ. NO. P896.101

We are sending you the following:

No. of Copies	Description
1	Correspondence amending May 6, 2002, response letter

These are Transmitted as checked below:

- ☐ For approval
- ☑ For your use
- ☐ As requested
- ☐ For review and comment
- ☐ Approved as submitted
- ☐ Approved as noted
- ☐ Returned for corrections
- ☐ Other

Remarks: The attached correspondence is forwarded to you at the request of Dr. Osman Aly, representative of Campbell Soup Company. This letter has been reviewed and approved by Dr. Aly. It amends our earlier correspondence submitted to you on May 6, 2002, and summarizes agreements from our May 7, 2002, meeting. If you have any questions, call me at 734-213-5042.

Signed: Craig Savage

cc: Dr. Osman Aly, Campbell
Michael Maringer, Campbell
Michael Terpinski, Ohio EPA

Transmitted by:

- ☑ First Class Mail
- ☐ Federal Express
- ☐ Courier
- ☐ Registered Mail
- ☐ UPS
- ☑ Other Facsimile

GeoTrans, Inc.
A TETRA TECH COMPANY

710 Avis Drive
Ann Arbor, MI 48108

www.geotransinc.com

734-213-2204 FAX 734-213-5008

May 13, 2002

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Addendum to May 6, 2002, Response to Notice of Deficiency
Closure Plan
Campbell Soup Company
OEPA ID# OHD005419171

Dear Dr. Aly:

This correspondence is the second of two prepared to respond to the Ohio EPA's Notice of Deficiency letter, dated April 23, 2002. The Notice of Deficiency included an attachment (Attachment A) detailing the Ohio EPA's comments and proposed changes relating to the Closure Plan.

GeoTrans drafted an initial response to the Notice of Deficiency in a May 6, 2002, Response to Notice of Deficiency (Response) letter outlining our recommended actions at the Campbell Soup Company (Campbell) site. This response letter and Attachment A of the Ohio EPA's letter were used as an outline during a May 7, 2002, meeting with representatives of the Ohio EPA, Campbell Soup, and GeoTrans. The meeting was followed up with a telephone conference call held on May 8, 2002, to further discuss groundwater issues.

Per the results of the meeting and conference call we are sending this addendum to the May 6, 2002, Response to Notice of Deficiency, amending the following items in our initial Response letter:

1.0 We have agreed to install three monitoring wells on-site, which is intended to address the issues summarized in response number one. The installation of the wells will be outlined in the Revised Closure Plan, but in summary will include the following:

- Wells will be screened at first available water identified in the native soil unit,
- Wells will be installed using hollow-stem auger techniques no deeper than 20-feet into the native soil unit,

- The approximate locations of the proposed monitoring wells is shown on a figure faxed to the Ohio EPA on May 9, 2002, and attached to this letter,
- Soil lithology will be determined using continuous spilt-spoon samples,
- Soils will be screened for organics in the field using a PID meter,
- No soil samples will be collected for analytical evaluation unless a positive PID reading indicates the presence of contaminants, and
- Any groundwater entering the wells will be sampled and analyzed for VOCs and SVOCs.

The Revised Closure Plan will contain all of the information relating to a groundwater investigation at this site as requested in response number one.

1.2 The Ohio EPA has requested additional topographic information for the site. We have obtained 1953 pre-plant topographic information, and distributed it at the May 7 meeting. However, due to the limited time frame for re-submittal of the Revised Closure Plan we have agreed to provide additional topographic data for this site at a later date.

Additional geotechnical data will be presented in the Revised Closure Plan. This includes a historical geotechnical report, local well logs, and additional general lithology data from the area.

The Ohio EPA has requested an inventory of all wells within a ½-mile radius of the site. GeoTrans recently conducted an inventory of well logs within 5-miles of the site. We have identified one well within a ½-mile of the site. All wells within 5-miles of the site will be presented in the Revised Closure Plan.

3.3 The Ohio EPA requests that the schedule be revised to include time for obtaining relevant permits for treating the excavated soil and all water used/encountered during field work. We have obtained air emissions data from the medium temperature thermal desorption (MTTD) manufacturer and will submit it to the Ohio EPA Air Quality Division for review. We will add a disclaimer to the schedule in the Closure Plan stating "If the Ohio EPA determines that an air permit is required for the MTTD, then the Ohio EPA DHWM will be notified and the schedule presented in this Closure Plan will be delayed until an air permit is obtained".

We do not plan on obtaining any additional permits associated with the on-site WWTP. We will be discharging perched water, surface water, and rinseate water to the WWTP and have determined the WWTP can handle this discharge.

4.1 The Ohio EPA notes that once the contaminated soil is excavated, it will be considered a newly-generated waste. Newly-generated wastes require laboratory analysis to determine if the waste is hazardous. The Ohio EPA also notes that if the

waste is determined to be hazardous a RCRA Type B permit will be required for on-site treatment.

As discussed in the May 7 meeting, we will collect four discrete soil samples for TCLP analysis to determine if the soils on-site are hazardous. The samples will be collected from near known areas affected with organic compounds, specifically PB-01 at 5.5 feet, PB-01-34 at 8.5 feet, PB-01-32 at 6.5 feet, and PB-01-28 at 4.5 feet. However, to ensure a representative sample of the on-site materials will be collected we will prepare a vertical composite sample at each of the above-mentioned locations with material from 1-foot above and below the previously cited depths. If the soil is proven to a hazardous waste, we will most likely proceed with a hazardous waste investigation to delineate the hazardous waste on site. A RCRA Type B permit will not be sought and no hazardous waste will be treated on-site.

4.2 The Ohio EPA noted that the analytical data presented in the Closure Plan had very high detection limits. The limits presented in the Closure Plan were reporting limits, not method detection limits. The laboratory used on-site, New Age/Landmark, Inc., is reviewing the data and will re-issue lab reports showing all concentrations detected above the method detection limits. *We request that the Ohio EPA review the re-issued method detection limits and let Campbell's know if they are acceptable for closure and delineation samples. We request this is done in a timely manner to allow inclusion of all available delineation samples in the Revised Closure Plan. We will forward the re-issued laboratory reports to the Ohio EPA as soon as we receive them.*

In accordance with Ohio EPA requirements, we will obtain two non-detect soil samples in both the vertical and horizontal directions prior to submittal of a Certification Report. We will review the re-issued soil concentrations and the method detection limits to determine if additional delineation or closure samples will be required.

4.3 As discussed during the May 7 meeting, we have concluded that the wastewater treatment plant (WWTP) can handle the concentrations of organics in the perched water. In addition, we concluded that the perched water has the highest concentrations of organics, due to its continuous contact with the contaminated soil. Therefore, the on-site WWTP will be able to accept the surface water and rinseate water generated during the fieldwork and no pre-treatment analyses are considered necessary.

Per the Ohio EPA's request in the May 7 meeting, we will modify Section 14.0 of the Closure Plan to provide more detail on the methods, sampling analysis and protocol for treated soil, suspected clean soils, and the ditch surface water.

4.4 In addition to the actions proposed in our May 6 Response we will present a clear sampling procedure for both the confirmation of site cleanup samples and the site delineation samples.

8. The appropriate waste code, which relates to the original contaminants on site, will be included in the introduction sections of the Revised Closure Plan.

9. We wish to revise the last sentence of response number 9 to read "Runoff that comes into contact with the waste during the remediation action will be disposed of at the on-site WWTP".

10. At the May 7 meeting we distributed a copy of the January 1997 Environmental Protection Agency Quick Reference Fact Sheet Engineering Forum Issue Paper: Thermal Desorption Implementation Issues, recommending the manufacturer determine if a pilot study or test burn is necessary. Per the manufacturer's recommendation, we do not plan to run a bench scale trial or a test burn for treating the contaminated soils on-site with the MTTD.

    Regarding air quality issues, we have obtained air emissions data from the MTTD manufacturer and will submit this data to the Ohio EPA for review. We will work with the Ohio EPA to obtain an air emissions permit.

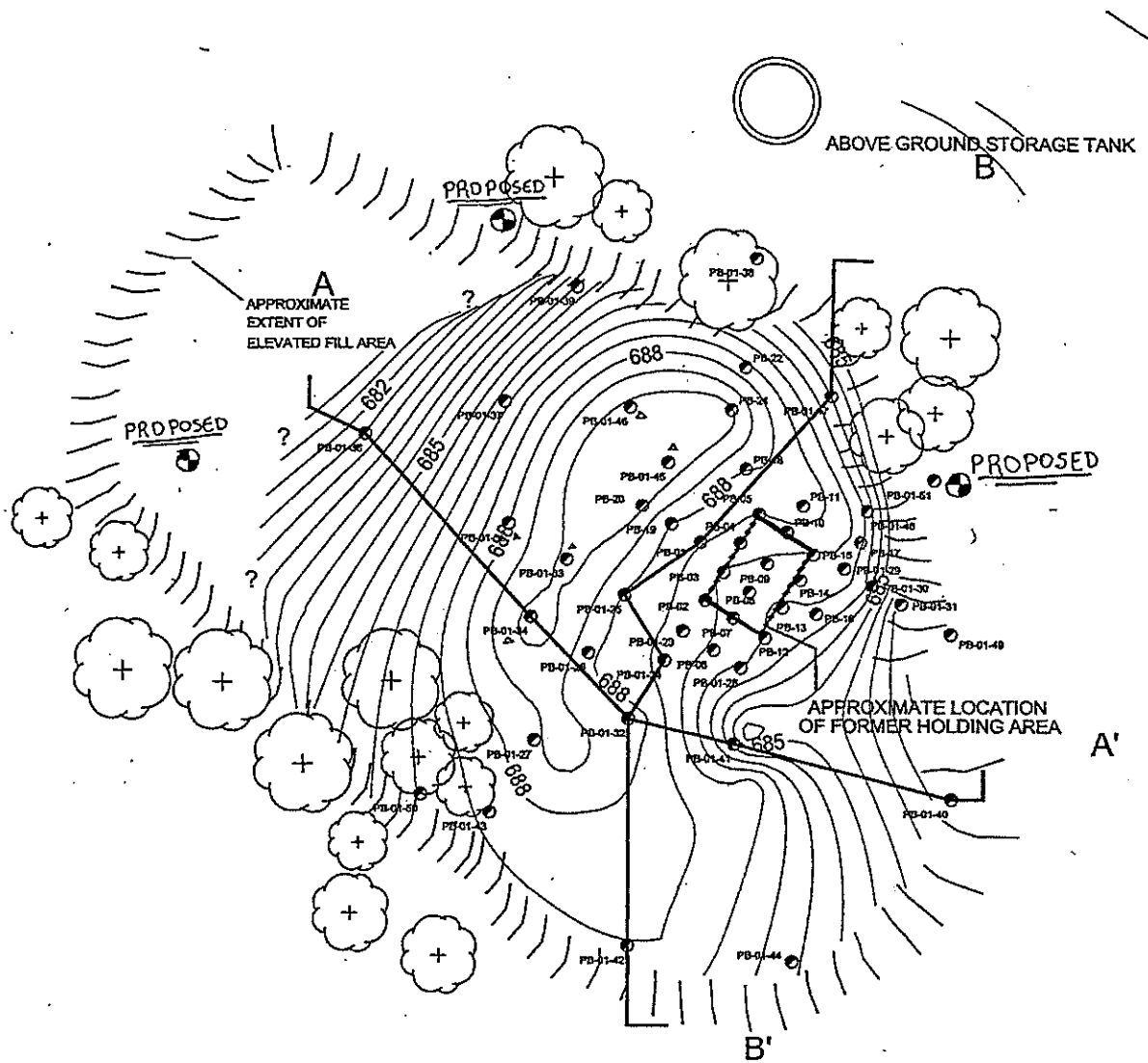
In accordance with the Notice of Deficiency a Revised Closure Plan shall be submitted to the Ohio EPA within thirty (30) days of receipt of the Notice of Deficiency. As the Notice of Deficiency was received on April 25, 2002, the Revised Closure Plan is due May 25, 2002. This is Saturday of Memorial Day Weekend; therefore we will plan to have the Revised Closure Report at the Ohio EPA office on Tuesday, May 28, 2002.

If you agree this letter, in addition to the May 6 Response to Notice of Deficiency, is an accurate summary of the meeting and phone conference with the Ohio EPA and accurately describes the future actions at this site, please forward this to the Ohio EPA for their records.

Sincerely,

Craig A. Savage, C.P.G
Senior Associate Hydrogeologist

Copy: Mike Maringer, Campbell Soup Napoleon Plant
Robert Briggs, GeoTrans, Sterling, Virginia



N

NOTES:

1. CONTOURS GENERATED IN SURFER USING KRIGING DEFAULT SETTINGS AND GROUND SURFACE ELEVATIONS MEASURED AT BORINGS COMPLETED IN MAY 2001.

LEGEND:

685 — GROUND SURFACE CONTOUR LINE
CONTOUR INTERVAL EQUALS 0.5-FOOT

A — A' CROSS SECTION ORIENTATION LINE

PROPOSED Proposed MONITORING WELL

GeoTrans, Inc.	30' 15' 0 30' 60' SCALE 1" = 30' NOT TO SCALE	RCRA CLOSURE PLAN CAMPBELL SOUP COMPANY NAPOLEON, OHIO CROSS SECTION ORIENTATION MAP	FIGURE 4A
DRAWN: CAS DATE: 10/23/01			

C:\CAMPBELLSOUP\CADD\CLOSURE\PLAN.DWG 10/23/01 LAB 1

Henry County
Campbell's Soup
General

GeoTrans, Inc.
A TETRA TECH COMPANY

FAX TRANSMISSION COVER SHEET

710 Avis Drive
Ann Arbor, MI 48108
(734) 213-2204
Fax: (734) 213-5008

To: JAMES MOSELEY

Date: 5-9-02

Company or Division: OHIO EPA

No. Of Pages: Two
(Including Cover Sheet)

Fax No.: 419-352-8468

Phone No.: 419-373-3015

From: MICHAEL KOVACICH

Remarks:

JAMES,

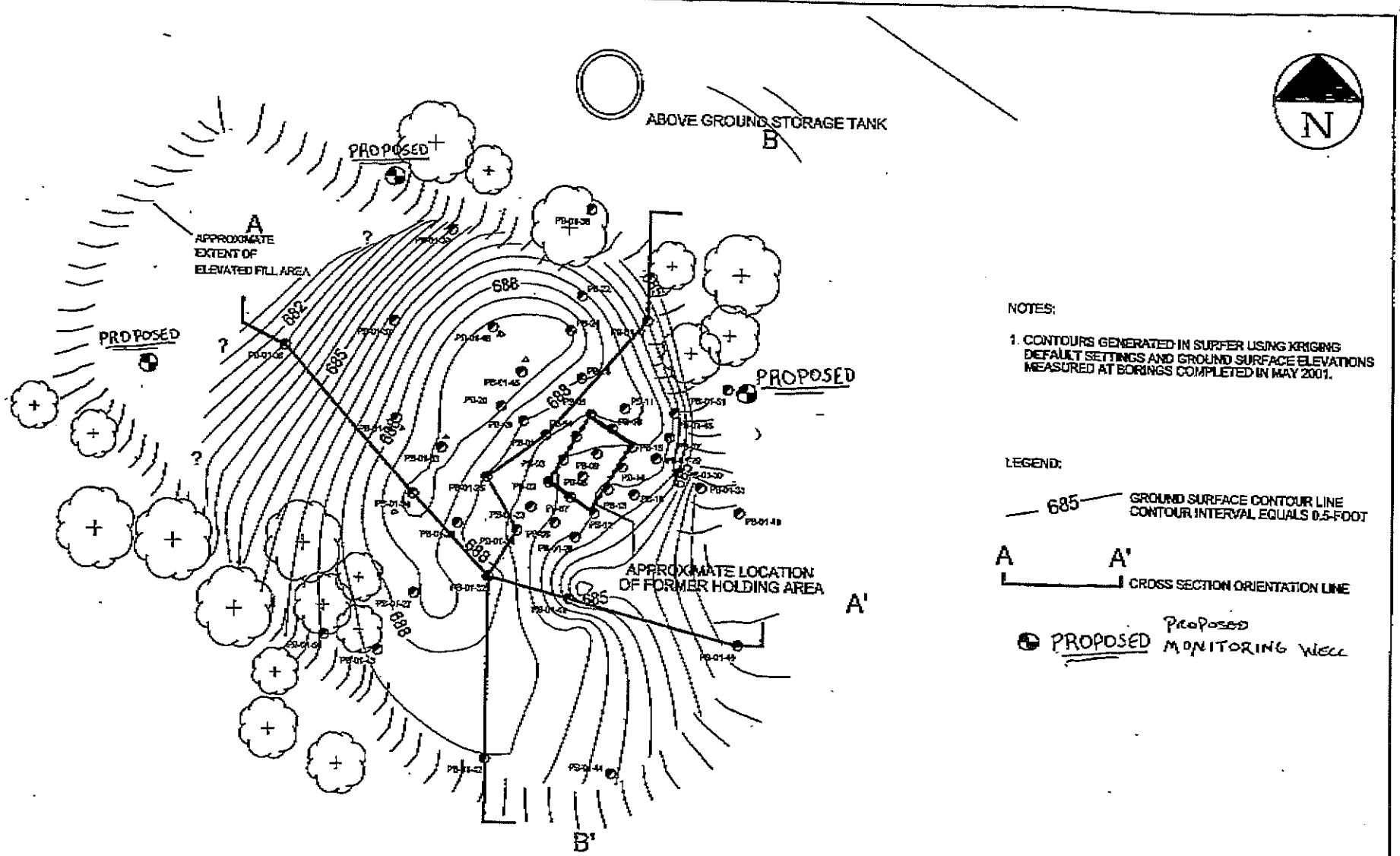
please find attached a map which shows the location of the proposed monitoring well per our discussions on Wednesday. We will agree on the final locations during the well installation.

If you have any Questions Please give me a call,

Mike
Konsert
734-213-5024

IF YOU DO NOT RECEIVE THE NUMBER OF PAGES LISTED ABOVE, PLEASE CALL.

This facsimile contains **Privileged and Confidential** information intended only for the use of the Addressee(s) named above. If you are not the intended recipient of this facsimile, or employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination or copying of this facsimile is strictly prohibited. If you received this facsimile in error, please notify us by telephone and return the original facsimile to us at the above address via the U.S. Postal service. Thank You.



GeoTrans, Inc.

CHECKED: CAS | DATE: 10/23/01

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

CROSS SECTION ORIENTATION MAP

FIGURE 4A

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSURE/PLAN.DWG 10/23/01 LAB I

MAY. 9.2002 3:40PM HSG ANN ARBOR NO.924 P.2/2

Henry Count
Campbell's Soup
710 Avis Drive Geneva

GeoTrans, Inc.
A TETRA TECH COMPANY
Ann Arbor, MI 48108
www.geotransinc.com
734-213-2204 FAX 734-213-5008

May 6, 2002

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Response to Notice of Deficiency
Closure Plan
Campbell Soup Company
OEPA ID# OHD005419171

Dear Dr. Aly:

On October 31, 2001, GeoTrans, Inc., submitted the RCRA Site Closure Plan, Former Holding Pit Unit (Closure Plan) to the Ohio Environmental Protection Agency (Ohio EPA). The subject of the closure plan was the former holding pit at the facility located at 1273 State Route 110, in Napoleon, Ohio. The Closure Plan presented the methods and procedures proposed for closing and remediating the subject area. The Ohio EPA reviewed the Closure Plan and issued a Notice of Deficiency, dated April 23, 2002. The Notice of Deficiency included an attachment (Attachment A) detailing Ohio EPA's comments and proposed changes relating to the Closure Plan.

We understand that Campbell Soup Company (Campbell) has requested a meeting with the Ohio EPA to discuss the Notice of Deficiency and Campbell's proposed actions in detail. We are sending this letter to you in advance so you can forward it to the Ohio EPA in time for them to have adequate time to review our proposed actions and counter proposals before the planned meeting.

The following is a detailed response to the numbered comments in Attachment A:

1. We interpret the majority of the Ohio EPA's comment 1 as an argument to justify the need for groundwater sampling on site. Although GeoTrans agrees with the Ohio EPA, that it has not been conclusively demonstrated that groundwater has not been impacted at this site, we present additional information supporting our hypothesis that the likelihood impact to the groundwater is extremely low:

- Dry clay was observed at the bottoms of borings PB-01-34, PB-01-35, PB-01-37, PB-01-49, and others. This clay contained roots and vegetation suggesting the clay may be native soil. Because the clay was dry the perched water does not appear to penetrate vertically into the clay layer, the potential for downward vertical migration is minimal.

- Local area well logs 1.5 to 5 miles from the site (none have been identified closer) indicate a continuous 50-foot thick clay layer that extends to bedrock. This suggests that significant clay units exist on top of the bedrock, potentially limiting vertical migration of water and contaminants.

- The Ohio EPA was on-site when groundwater was encountered in borings PB-01-33, PB-01-34, PB-01-35, PB-01-45, and PB-01-26 in May 2001. At that time, the Ohio EPA agreed that the water found in these borings was perched at an elevation above natural grade.

- Nine geotechnical borings were advanced to depths of 30 feet in 1989 for construction planning purposes. Six of these were located approximately 150 feet north and three were located about 500-feet southeast of the subject area. These borings identified significant stiff clays from about 3-5 feet below land surface (bls) to the end of the boring. Seven of the 9 borings were reported to be dry after waiting 24 hours, and the remaining 2 contained water in isolated sand seams.

We present the following items, corresponding to the numbered responses in Attachment A, for discussion during our upcoming meeting.

1.1. The Ohio EPA disagrees with the conclusion presented in the Closure Plan that impacts of COCs to the natural groundwater are extremely low. We concede to the Ohio EPA that groundwater conditions should be evaluated at this site closer to the subject area. However the installation of a minimum of three monitoring wells on site, as required by the Ohio EPA, is premature.

There is considerable qualitative evidence indicating that the unconsolidated soils are unlikely to produce groundwater. Local well logs indicate massive clay layers on top of bedrock in the subsurface areas near the site. On-site boring logs also show stiff clay to at least 30 feet bls. If the lithology under the mound matches the well and boring logs then the perched water observed in borings on the northwest portion of the mound should not migrate vertically, and no usable groundwater should exist in the unconsolidated soils beneath the site.

We recommend the installation of one exploratory boring at the western base of the mound, beyond the limits of the elevated fill area. This boring will be advanced to a minimum depth of 50-feet or until bedrock is encountered. The boring will be

used to determine whether groundwater is present and to characterize the lithology of the native unconsolidated sediments beneath the study area. If water bearing units are observed in the unconsolidated soils during advancement of the exploratory boring, then we suggest implementing the Ohio EPA's proposed groundwater investigation, including determining groundwater flow direction, installing monitoring wells, and sampling of the groundwater. Details of the procedures for the exploratory boring and a groundwater investigation, if needed, will be outlined in the Revised Closure Plan.

The additional Ohio EPA suggestion of sampling soil samples at 2-foot intervals for VOC and SVOC analysis is completely unwarranted, as the borings will not be in the mound or in the subject area with contaminated soil. We recommend screening soils using a PID as a compromise position, with possible analyses of one or two samples.

The Ohio EPA comments state that the natural grade is approximately 670.06-feet AMSL. This elevation was obtained from an Excel spreadsheet with survey data sent to the Ohio EPA via e-mail. It should be noted that the professional surveyor on-site did not survey the "north bottom toe" and the "edge of pond" locations indicated at the end of this spreadsheet. A GeoTrans geologist surveyed these elevations at an earlier date. As this site has been re-graded numerous times, this elevation may or may not be the natural grade at the site.

1.2. The Ohio EPA has requested additional topographic information for the site. We have obtained 1953 pre-plant topographic information. The historical topographic information will be helpful in determining the native grade. Additional topographic elevation data will be obtained after completion of the exploratory boring.

The Ohio EPA also requests substantiation of the conclusion that the clay-rich native soil acts as a low permeability barrier to vertical migration, discussion of bedrock below the site, discussion of geotechnical data, and a discussion of groundwater occurrence and flow direction. The exploratory boring, as proposed above, will provide all of the requested information except groundwater flow information. If groundwater is encountered in the unconsolidated materials, then wells can be considered to determine the groundwater flow direction and gradient. The resulting information will be presented in the Certification Report.

The Ohio EPA has requested an inventory of all wells within a ½-mile radius of the site. As stated in Section 4.7 of the Closure Plan there are no groundwater users within one mile of the site. In addition, GeoTrans recently conducted an inventory of well logs within 5-miles of the site. These logs indicate that the subsurface lithology in the area consists of approximately 50-feet of clay continuous until bedrock. No wells were identified within ½-mile from the site.

1.3. The OEPA asks for revisions to Sections 4.5 and 6.1 for clarification. A summary of the clarification that will be provided in the Revised Closure Plan is provided below:

Section 4.5 lists only the thirty seven (37) compounds detected during the May 2001 investigation. Section 6.1 lists all compounds detected on site during all phases of the investigation. The exclusion of benzo(g,h,i)perylene in Section 6.1 was an oversight, and will be corrected in the Revised Closure Plan.

1.4. Section 4.6 will be revised to reflect the modified groundwater sampling plan, if necessary.

1.5. The Ohio EPA states that it is premature to conclude there are no potential COC in contact with the natural groundwater. As stated above, we agree that a groundwater evaluation may be appropriate. If the boring indicates that groundwater is present and has been impacted by COCs migrating from the mound, then Campbell should delineate the extent of the COCs in groundwater.

1.6. The requested sections will be modified in the Revised Closure Plan to reflect the modified groundwater sampling plan, if needed.

1.7. If contaminated groundwater is found on-site, the extent of impact should be determined and the two options described in the Ohio EPA's comments considered. A detailed closure plan for groundwater will be presented in the Revised Closure Plan, if necessary.

2. In removing the soils in stages, based on elevations, GeoTrans assumed that all soil beneath an elevation of 680-feet above mean sea level (AMSL) is impacted. We apologize for the error in Section 7.0, "Removal of Hazardous Wastes and Soil Remediation", stating that the excavation and screening process will continue until the elevation of 685-feet AMSL is reached. Section 7.0 will be corrected in the Revised Closure Plan to state the excavation and screening process will continue until the elevation of 680-feet AMSL is reached.

3. The schedule will be revised, as follows:

3.1. The activity "Verify initial elevation of contamination is reached" will be added to the schedule in Section 8.0 of the Closure Plan. The schedule will indicate that a registered professional engineer will be on-site for this activity and that the Ohio EPA will be notified at least 5-days prior to this activity.

3.2. The schedule will be revised to indicate that a Certification Report will be submitted to the Ohio EPA within 60 days of completion of soil removal.

3.3. The Ohio EPA requests that the schedule be revised to include time for obtaining relevant permits. During our meeting with the Ohio EPA, we wish to discuss the necessary permitting processes required at this site.

4. We offer the following discussion on the Ohio EPA's recommended changes to Section 14.0, "Sampling Plan and Analytical Procedures":

4.1. The Ohio EPA notes that once the contaminated soil is excavated, it will be considered a newly-generated waste. Newly-generated wastes require laboratory analysis to determine if the waste is hazardous. The Ohio EPA also notes that if the waste is determined to be hazardous a permit will be required for treatment. We recommend collecting four discrete soil samples to prepare a single composite sample for TCLP analysis. The samples will be collected from near known areas affected with organic compounds, specifically PB-01 at 5.5 feet, PB-01-34 at 8.5 feet, PB-01-32 at 6.5 feet, and PB-01-28 at 4.5 feet. If the soil is proven to a hazardous waste, a RCRA Part B permit will be applied for and obtained.

4.2. As stated in Section 5.0 of the October 1, 2000, RCRA Site Closure Investigation Work Plan "The EPA Method 5035 (field methanol preservation) procedure will not be used during this investigation phase of this work plan because it will negatively affect the detection limits of the on-site mobile laboratory apparatus" we agree with the Ohio EPA that methanol preservation dilutes the method detection limits of the soil samples. This section was revised in the Closure Plan after consultation with Eric Shultz, lab coordinator of the Ohio EPA's, laboratory, in Columbus, Ohio. He recommended using methanol preservation, even though the mobile laboratory would be analyzing all samples within 24-hours. We did not discuss low-range effects and procedures. We currently are reviewing the analytical procedure with the mobile laboratory subcontractor, and will have more details about their analyses by Tuesday.

In accordance with Ohio EPA requirements, we will obtain two non-detect soil samples in both the vertical and horizontal directions during and after excavation to confirm site delineation if it is determined that the existing soil analytical data is not useable for this purpose.

4.3. Ohio EPA has requested that Section 14 be modified to include a sampling analysis plan for the following:

- perched water
- surface water that may come into contact with the waste during excavation
- treated soils
- rinseate
- surface water in the ditch north of the mound
- suspected clean soils

Future sampling of perched water was not considered, as we planned to dewater these layers prior to excavation, and dispose of the perched water at the on-site wastewater treatment plant.

Surface water that comes into contact with the contaminated soil is addressed within the response to item #9.

Section 7 of the Closure Plan states that one sample per 500 tons of treated soil will be analyzed to verify cleanup goals have been met. Based on a total excavation weight of 6,000 tons, this represents approximately 12 samples, the minimum number of samples required to ensure data is statistically valid.

Rinseate handling procedures were described in Section 11. All rinseates will be disposed at the on-site WWTP, and no pre-treatment analyses are considered necessary.

The Closure Plan discussed analyses of the surface water drainage ditch in Section 13. It states that a sample will be collected from the location closest to the unit.

Section 7 of the Closure Plan states that one sample per 100 cubic yards will be obtained from the soil material segregated as potentially clean in the upper most lift of the excavation.

We will modify Section of the Closure Plan to describe the sampling analysis and protocol for treated soil, suspected clean soils, and the ditch surface water.

4.4. The Ohio EPA requests more information to demonstrate that the appropriate number of samples from the excavation sidewalls and floor were determined. The Closure Plan Review Guidance Document for RCRA Facilities, September 2000 recommends using a grid interval to collect the appropriate amount of samples. The recommended calculation for determining the grid interval uses statistical methods based on contaminant chemical masses. This is difficult to apply at this site, as the holding pit was demolished in 1983 and the remaining dried material was transported off site. Only residuals of the chemicals of concern remain at the site, confirmed by numerous soil samples at different depths. It is not practical to apply soil concentrations instead of chemical masses to determine the grid interval. Due to these complicating factors, we presented a grid interval determination based on the surface area of the excavation. This grid determination method is consistent with valid statistical procedures used in other states and by the USEPA on other CERCLA and RCRA investigations. To ensure a statistically valid set of closure samples are analyzed, we propose using a Coefficient of Variation Test (CV) to evaluate the data distribution. We will add the application of the CV test to Section 14.0 of the Revised Closure Plan.

4.5. The Ohio EPA requests copies of manifests for any waste disposed of off site. As stated in Section 9.0 of the Closure Plan documentation of hazardous material disposal will be provided to the Ohio EPA. In addition, we will revise Section 14.0 to state documentation of all hazardous waste disposal will be included in the Certification Report.

5. Section 17.0 "Certification" of the Closure Plan will be revised to include all items listed in Section 3.18 of the Closure Plan Review Guidance Document for RCRA Facilities, September 2000.

6. Geoprobe boring GP-01-43 will be clearly labeled on all figures in the Revised Closure Plan.

7. Figure 4B will be revised to eliminate all inconsistencies.

8. The appropriate waste code will be included in the Revised Closure Plan.

9. We agree with the Ohio EPA that surface water could potentially come into contact with contaminated soils on-site, and serve as a mechanism for contaminant transport. Surface water that comes into contact with the contaminated soil will be diverted to a lined collection area or sump and pumped to a holding tank for disposal at the on-site WWTP. Standard construction erosion and runoff abatement procedures will also be in effect during excavation and back-filling. Runoff that comes into contact with the waste during the remediation action will be tested, and if non-hazardous, disposed at the on-site WWTP.

10. The Ohio EPA recommends a bench scale trial for the medium-temperature thermal desorption (MTTD) to ensure the variable parameters in the process are established accordingly. We contacted the proposed MTTD contractor to discuss this item, and obtained assurances that numerous State managed sites, CERCLA sites, and RCRA sites have been remediated using this technology. Numerous case studies exist to document that that high concentrations of organics in soils, even clays, are removed to non-detect limits at 400 to 500 degrees Fahrenheit. Soils containing significant concentrations of organic contaminants have been effectively remediated to non-detect levels. Based on vender information and several case studies, we do not recommend conducting a test burn (requiring on-site setup) or a bench-scale trial (conducted in a laboratory using actual soil samples).

Regarding air quality issues, the off-gasses are treated using a catalytic oxidizer with a verified organic vapor destruction efficiency of 98.9%. Due to the effectiveness of this technology, the manufacturer of the MTTD has a generic air permit for discharge within the State of Michigan. We will need to coordinate with the Ohio EPA to determine the necessary air permits required for installing and running the MTTD.

We look forward to meeting with you and the Ohio EPA to discuss the above listed issues at this site.

Sincerely,

Craig A. Savage, C.P.G
Senior Associate Hydrogeologist

Copy: Mike Maringer, Campbell Soup Napoleon Plant
Robert Briggs, GeoTrans, Sterling, Virginia

Henry County
Campbell's Soup
General

nice job + congrats on meeting the performance standard

Certified Mail

April 28, 2002

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: **Revised Closure Plan Approval**
Campbell Soup Company
USEPA/OEPA ID# OHD005419171

Dear Dr. Aly:

On October 31, 2001, GeoTrans Inc., on behalf of Campbell Soup Company (Campbell), submitted to Ohio EPA a closure plan entitled RCRA Site Closure Plan, Former Holding Pit Unit for a sludge pit unit formerly operated on the property. The facility is located at 1273 State Route 110, Napoleon, Ohio 43545. Revisions to the closure plan were received May 28, 2002. The closure plan was submitted pursuant to the revised Director's Final Findings and Orders issued August 22, 2001, and Ohio Administrative Code (OAC) 3745-66-12 in order to demonstrate that Campbell's proposal for closure complies with the requirements of rules OAC 3745-66-11 and 3745-66-12.

The owner and the public were given the opportunity to submit written comments regarding the closure plan in accordance with the hazardous waste rule requirements. The public comment period extended from November 21, 2001, through December 20, 2001. No public comments were received by Ohio EPA.

Based upon review of Campbell's submittal and subsequent revisions, I conclude that the amended closure plan for the hazardous waste facility at 1273 State Route 110, Napoleon, Ohio 43545, as modified herein, meets the performance standard contained in OAC rule 3745-66-11 and complies with the pertinent parts of OAC rule 3745-66-12.

The amended closure plan originally submitted to Ohio EPA on October 31, 2001, and revised on May 28, 2002, by Campbell is hereby approved with the following modifications:

Approval with Modifications to Revised Closure Plan
Campbell Soup Company

Ohio EPA has determined that several site characterization activities must be performed by the facility to meet the general closure standards for hazardous waste facilities and the specific standards for the closure of surface impoundments. These activities must be completed as part of the closure period. Site investigation results will determine whether additional closure activities are needed or whether closure certification can be completed. The nature and extent of post-closure monitoring will also be directed by the results from sampling activities outlined in Section 14.4.

General Modifications to the May 28, 2002, Revised Closure Plan

1 No excavation activities as outlined in this plan shall be undertaken until any and all authorizations necessary to perform the actions contained herein are obtained from Ohio EPA. This includes any permits necessary pursuant to compliance with OAC rules 3745-31-02 and 3745-35-02. Copies of such authorization(s) shall be received by the Division of Hazardous Waste, NWDO prior to beginning any excavation.

2 Campbell shall follow standard industry protocols while investigating the potential for impact to shallow ground water including those activities outlined in Section 14.1. Data that demonstrates appropriate well construction, boring, development, and sampling logs as well as all other pertinent monitoring well information and ground water analytical results shall be generated and compiled during this investigation for submission to Ohio EPA. Standards for such activities can be found in the Ohio EPA guidance document entitle *Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring* dated February 1995.

3 If analysis of water samples obtained from the ground water investigation show the shallow ground water has been impacted, within 30 days of receipt of the analytical

results, Campbell shall submit an amended closure plan which includes a revised schedule for closure and details the measures to be undertaken to delineate and remediate the areas of contamination.

4 If Campbell is not able to demonstrate clean closure of the contaminated area at the time of submission of the certification report, Campbell shall either excavate and dispose of all contaminated material off-site or submit an amended closure plan which details the measures necessary to close as a surface impoundment in accordance with OAC rule 3745-67-28. Should the latter alternative be chosen, Campbell shall submit a closure/post-closure care plan pursuant to OAC rules 3745-66-10 through 3745-66-20 and 3745-68-10.

Specific Modifications to the May 28, 2002, Revised Closure Plan

5 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state that Campbell will complete and submit a site health and safety plan to Ohio EPA, NWDO within 30 days of receipt of a notice of approval by Ohio EPA of the closure plan.

6 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state all information generated during the shallow ground water investigation shall be submitted to Ohio EPA, NWDO within 30 days of the installation of the last monitoring well.

7 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state Campbell will receive the results of closure verification sampling within 180 days of receipt of a notice of approval by Ohio EPA of the closure plan.

8 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state Campbell will conduct the engineer inspection and certification of site closure within 180 days of receipt of a notice of approval by Ohio EPA of the closure plan.

9 Section 11, Decontamination Efforts. For sampling and analysis involving waste delineation and confirmation, Campbell shall collect field blanks at a frequency of 10% of the total number of samples sent to the laboratory at a minimum of one field blank per day. Field blanks shall consist of analyte-free water poured over decontaminated sample collection equipment. They shall be analyzed for each

analysis requested for the soil samples being sent to the laboratory for that particular day of sample collection.

10 Section 14.4, Waste Characterization Sampling Plan. The revised closure plan is hereby modified to state material analyzed for the presence of hazardous waste characteristics as required by OAC rule 3745-52-11 shall utilize the Toxicity Characteristic Leaching Procedure (TCLP) extraction method. These samples shall be analyzed for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals using standard SW-846 methods.

11 Section 14.4, Waste Characterization Sampling Plan. The revised closure plan is hereby modified to state copies of manifests and receipts will be sent to Ohio EPA, NWDO for any waste disposed off-site. Campbell shall provide Ohio EPA with an estimate of volume for all wastes treated on-site and disposed off-site as a result of closure activities.

12 Section 17.0, Certification. The revised closure plan is hereby modified to state Campbell shall include a topographic map depicting the ground surface elevations of the mound and natural grade with a scale no greater than 1 inch equals 30 feet and a contour interval no greater than 5 feet. It shall also include detailed descriptions and locations of the topographic features in the vicinity of the mound and at Campbell's plant which may affect conditions at the mound (i.e., buildings, rivers, ditches, etc...).

13 Section 17.0, Certification. The revised closure plan is hereby modified to state that Campbell shall include a separate appendix in the closure certification report which contains all the data generated during the ground water investigation. This may be incorporated by reference if this information has already been submitted in its entirety to Ohio EPA, NWDO in distinct form. Lab data generated as part of this investigation may be placed elsewhere within the report.

14 Table 3 in the revised closure plan which contains the maximum concentrations for the constituents of concern is hereby replaced by the table in Attachment A.

End of Modifications

Compliance with the approved closure plan, especially including the modifications specified herein, is expected. Ohio EPA will monitor such compliance. Ohio EPA expressly reserves the right to take action, pursuant to chapters 3734. and 6111. of the Ohio Revised Code, and other applicable law, to enforce such compliance and to seek appropriate remedies in the event of noncompliance with the provisions and modifications of this approved closure plan. Please be advised that approval of this closure plan does not release Campbell from any responsibilities regarding corrective action for all releases of hazardous waste or constituents from any waste management unit, regardless of the time at which waste was placed in the unit.

You are hereby notified that this action of the Director of Environmental Protection is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the commission within 30 days after notice of the director's action. Notice of the filing of the appeal shall be filed with the director within three days after the appeal is filed with the commission. An appeal may be filed with the commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

When closure is completed, OAC rule 3745-66-15 requires the owner or operator of a facility to submit to the director of Ohio EPA, certification by the owner or operator and an independent, registered professional engineer, that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC rule 3745-50-42(D). These certifications should be submitted to:

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
Attn: Pamela Allen, Information Technologies and Technical Support Section
P.O. Box 1049, Columbus, Ohio 43216-1049

Ohio EPA, Division of Hazardous Waste Management, strongly encourages you to consider pollution prevention options for any processes at your facility that generate

waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and, as a result, eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact James Moseley at 419-373-3015.

— I'd put Colleen's name here. She's the P2 pro for our district

Sincerely,

Christopher Jones
Director

cc: Pamela Allen, DHWM Central File, Ohio EPA
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA
Harriet Croke, USEPA - Region V
James Moseley, NWDO, Ohio EPA
Craig Savage, GeoTrans, Inc

ec Michael Terpinski, NWDO, Ohio EPA
Colleen Weaver, NWDO, Ohio EPA
James Moseley NWDO, Ohio EPA

Attachment A

Chemical of Concern Identified at the Site	Direct Contact Soil Standard, Multiple Chemical Adjusted (µg/kg)	Direct Contact Soil Standard, Multiple Chemical Adjusted (mg/kg)	Basis	Non-Cancer GCN	Cancer GCN	SAT	MCA NC	MCA CA
Chloromethane (methyl chloride)	813	0.81	nc	3.66E+01	na	1.09E+03	8.13E-01	na
Bromomethane	84	0.08	nc	3.77E+00	na	3.07E+03	8.38E-02	na
Methylene chloride	5,313	5.31	ca	1.63E+03	8.50E+01	2.28E+03	3.62E+01	5.31E+00
Chloroform	151	0.15	ca	4.16E+01	2.41E+00	2.53E+03	9.24E-01	1.51E-01
Benzene	152	0.15	nc	6.85E+00	6.87E+00	9.58E+02	1.52E-01	4.29E-01
Trichloroethene	498	0.50	nc	2.24E+01	2.70E+01	9.24E+02	4.98E-01	1.69E+00
Toluene	12,756	12.76	nc	5.74E+02	na	8.80E+02	1.28E+01	na
Ethylbenzene	30,444	30.44	nc	1.37E+03	na	2.25E+02	3.04E+01	na
Total xylenes	32,667	32.67	nc	1.47E+03	na	3.16E+02	3.27E+01	na
Styrene	88,667	88.67	nc	3.99E+03	na	6.83E+02	8.87E+01	na
Isopropylbenzene (cumene)	35,333	35.33	nc	1.59E+03	na	8.55E+02	3.53E+01	na
1,2,3-Trichloropropane	40	0.04	ca	3.27E+02	6.33E-01	9.88E+02	7.27E+00	3.96E-02
n-Propylbenzene	12,111	12.11	nc	5.45E+02	na	7.20E+01	1.21E+01	na
1,3,5-Trimethylbenzene	431	0.43	nc	1.94E+01	na	1.99E+02	4.31E-01	na
tert-Butylbenzene	12,111	12.11	nc	5.45E+02	na	3.88E+02	1.21E+01	na
1,2,4-Trimethylbenzene	496	0.50	nc	2.23E+01	na	2.55E+02	4.96E-01	na
sec-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
p-Isopropyltoluene	12,733	12.73	nc	5.73E+02	na	5.73E+02	1.27E+01	na
n-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
1,2,4-Trichlorobenzene	2,333	2.33	nc	1.05E+02	na	3.02E+03	2.33E+00	na
Naphthalene	1,213	1.21	nc	5.46E+01	na	2.43E+02	1.21E+00	na
2-Methylnaphthalene	1,213	1.21	nc	5.46E+01	na	1.13E+04	1.21E+00	na
Methyl 4,-2-Propanone (MIBK)	16,178	16.18	nc	7.28E+02	na	1.72E+04	1.62E+01	na
Butanone 2- (MEK)	146,667	146.67	nc	6.60E+03	na	3.41E+04	1.47E+02	na
Acenaphthene	48,667	48.67	nc	2.19E+03	na	1.08E+02	4.87E+01	na
Fluorene	33,778	33.78	nc	1.52E+03	na	9.03E+01	3.38E+01	na
Phenanthrene	158,000	158.00	sat	1.21E+04	na	1.58E+02	2.69E+02	na
Anthracene	5,670	5.67	sat	1.21E+04	na	5.67E+00	2.69E+02	na
Fluoranthene	36,667	36.67	nc	1.65E+03	na	na	3.67E+01	na
Pyrene	33,333	33.33	nc	1.50E+03	na	9.96E+01	3.33E+01	na
Benzo (a) Anthracene	289	0.29	ca	na	4.63E+00	na	na	2.89E-01
Chrysene	7,180	7.18	sat	na	4.57E+02	7.18E+00	na	2.86E+01
Benzo (b)Fluoranthene	288	0.29	ca	na	4.60E+00	na	na	2.88E-01
Benzo (k) Fluoranthene	2,906	2.91	ca	na	4.65E+01	na	na	2.91E+00
Benzo (a) Pyrene	29	0.03	ca	na	4.65E-01	na	na	2.91E-02
Indeno (1,2,3-cd) Pyrene	291	0.29	ca	na	4.65E+00	na	na	2.91E-01
Benzo (g,h,i) Perylene	150	0.15	sat	1.50E+03	na	1.50E-01	3.33E+01	na
Trichlorofluoromethane	7,956	7.96	nc	3.58E+02	na	3.91E+04	7.96E+00	na
1,1-Dichloroethene	33	0.03	ca	1.97E+01	5.21E-01	1.55E+03	4.38E-01	3.26E-02
trans-1,2-Dichloroethene	1,382	1.38	nc	6.22E+01	na	3.05E+03	1.38E+00	na
1,1-Dichloropropene	qualitative	qualitative		na	na		na	na
1,2-Dichloroethane	238	0.24	nc	1.07E+01	2.82E+01	1.81E+03	2.38E-01	1.76E+00
Chlorobenzene	1,116	1.12	nc	5.02E+01	na	6.95E+02	1.12E+00	na
Bromobenzene	836	0.84	nc	3.76E+01	na	7.53E+02	8.36E-01	na
1,1,2,2-Tetrachloroethane	223	0.22	ca	na	3.56E+00	1.71E+03	na	2.23E-01
2-Chlorotoluene	24,222	24.22	nc	1.09E+03	na	1.42E+03	2.42E+01	na
4-Chlorotoluene	qualitative	qualitative		na	na	3.44E+02	na	na
1,3-Dichlorobenzene	9,089	9.09	nc	4.09E+02	na	2.40E+02	9.09E+00	na
1,4-Dichlorobenzene	1,900	1.90	ca	3.37E+03	3.04E+01	na	7.49E+01	1.90E+00
1,2-Dichlorobenzene	19,178	19.18	nc	8.63E+02	na	3.73E+02	1.92E+01	na
1,2-Dibromo-3-chloropropane	69	0.07	nc	3.11E+00	na	2.07E+03	6.91E-02	na
Hexachlorobutadiene	242	0.24	nc	1.09E+01	5.68E+01	1.18E+05	2.42E-01	3.55E+00
1,2,3-Trichlorobenzene	182	0.18	nc	8.18E+00	na	1.24E+03	1.82E-01	na
Acetone	32,000	32.00	nc	1.44E+03	na	1.04E+05	3.20E+01	na

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

April 23, 2002

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: **Notice of Deficiency**
Closure Plan
Campbell Soup Company
OEPA ID# OHD005419171

Dear Dr. Aly:

On October 31, 2001, Ohio EPA received the document entitled RCRA Site Closure Plan, Former Holding Pit Unit from GeoTrans Inc. regarding closure for a sludge pit unit formerly operated on the property which was submitted on behalf of Campbell Soup Company (Campbell). The facility is located at 1273 State Route 110, Napoleon, Ohio 43545. The plan outlines the methods and procedures that will be used to close and remediate the areas on the property in and around where semi-solid waste generated from a rust inhibitor process for cans was dumped prior to off-site disposal.

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a review of the above referenced closure plan, and has determined it to be incomplete and technically inadequate.

We have enclosed, as an attachment to this correspondence, detailed deficiency comments on the closure plan. Please provide a revised closure plan addressing all areas indicated in the deficiency comments. Ohio Administrative Code (OAC) rule(s) 3745-66-12 requires that such a revised closure plan be submitted to the director of Ohio EPA for approval within thirty (30) days of the receipt of this letter. Please note the closure plan review guidance cited in Attachment A can be found on the world wide web at: http://www.epa.state.oh.us/dhwm/cprg.html.

The revised closure plan shall be prepared in accordance with the following editorial protocol or convention:

1. Old Language is over-struck, but not obliterated.
2. New Language is capitalized.
3. Page headers should indicate date of submission.
4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

Printed on Recycled Paper

The revised closure plan should be submitted to:

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
Attn: Pamela Allen, Manager, Information Technologies and Technical Support Section
P.O. Box 1049, Columbus, Ohio 43216-1049.

A copy should also be sent to (two are preferred):

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
Attn: James Moseley, Division of Hazardous Waste Management
347 Dunbridge Road, Bowling Green, Ohio 43402

Ohio EPA will, pursuant to OAC rule 3745-66-12, review the re-submitted plan and issue a final action approving or modifying the plan. Ohio EPA's final action on the re-submitted plan is appealable to the Environmental Review Appeals Commission.

If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact James Moseley, at (419) 373-3015.

Ohio EPA, DHWM, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and as a result eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Colleen Weaver at (419) 373-3059.

Sincerely,

Shannon Nabors

Shannon Nabors, District Office Unit
Supervisor
Division of Hazardous Waste Management

/llr

ec: James Moseley, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
pc: Craig Savage, GeoTrans Inc.
Pamela Allen, DHWM, Central File, Ohio EPA
Harriet Croke, U.S. EPA, Region V
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA
John Weaver, DDAGW, NWDO
File: Henry County, Campbell Soup Company, General

Attachment A

DHWM and DDAGW Comments

1 Section 4.0 contains a description of the site geology and the site hydrogeology. This section does not contain sufficient discussion of the site-specific geology and hydrogeology of the site, because it does not contain any site specific data derived from borings through the natural formation at the site or provide adequate information regarding the possible extent of contamination. The specific deficiencies are detailed below.

1.1 The following table notes selected analytical results from Geoprobe ground water screening samples collected from borings PB-01-33, 34, 35, 45, and 46 (Please see Tables 1 and 2 of the closure plan). Ground water concentrations are presented in micrograms/liter (ug/l).

Location/ Parameter	PB-01-33	PB-01-34	PB-01-35	PB-01-45	PB-01-46
benzene	7	9	2	3	1
ethylbenzene	70	170	11	160	19
xylenes	44	71	9	271	42
1,2,4-trimethylbenzene	450	81	17	400	45
methyl 4,2-propanone	65	2	ND	ND	4
naphthalene	53	8	ND	76	4

The closure plan states that perched ground water residing within the mound and impacted soils identified from the Geoprobe borings generally occur at an elevation above that of natural grade (Section 4.3, page 6). As such, the plan concludes that shallow ground water in the natural unconsolidated zone cannot be affected by the mound and is not a completed exposure pathway for the purposes of the former holding pit closure investigation (Section 4.8, page 12).

Ohio EPA disagrees with the conclusion that the potential for impacts to natural shallow ground water is extremely low based upon the following items:

- The ground surface elevation of Geoprobe boring PB-01-34 is 689.3 feet AMSL. The bottom of the PVC Geoprobe well screen is 16.5 feet below land surface (bls) or 672.8 feet AMSL, and the elevation of natural grade is approximately 670.06 feet AMSL. This leaves only 2.74 feet of separation between the bottom of the well screen and natural grade,

- Based upon the table above, a number of VOCs and SVOCs were detected in perched ground water at a depth of 11.5-16.5 feet bls at boring PB-01-34, including benzene above its maximum contaminant level (MCL). This indicates that impacted perched ground water within the mound exists only 2.74 feet above natural grade,

- The closure plan states that perched ground water may exit the mound via seeps along the mound walls and along the basal portion of the mound (Section 4.3, page 6 and Section 4.7, page 10) which implies migration and impact to areas outside and beneath the mound is possible,

- No shallow ground water screening data from the natural unconsolidated zone off the mound has been presented in the closure plan,

- Organics in the soil have been detected at a depth of at least 16 feet below the top of the mound (boring PB-01-25), and it is stated that the extent of soil impact is much larger than the physical limits of the former holding pit area (Section 2.1, page 3),

- The mound, which is comprised of varying amounts of fill, sand, silt, and clay, has undergone periods of reworking, settlement, and disturbance since its construction. The variable composition and reworking of the mound may have created preferential pathways and allowed increased migration of contaminants of concern (COCs) from the sides and underneath the mound,

- If a shallow natural unconsolidated zone beneath the mound is impacted by COCs migrating from the mound, there may be other associated risks including dermal and inhalation exposures to onsite construction and utility workers. In addition, the closure plan states in Section 4.7, page 11 that there is potential for exposure to seeps that may be discharging from locations around the periphery of the mound, and

- Impacted residual soils and fill have been residing in the former holding pit area and portions of the mound since at least 1981. Potential leaching of COCs from the mound may have been occurring for a period of 22 years while no evidence has been provided to indicate impacted soils and perched ground water have not leached COCs to underlying native unconsolidated materials and shallow ground water.

Therefore, in order to adequately characterize any effects to shallow ground water in the natural unconsolidated zone from the mound/former holding pit area, Campbell shall install a minimum of three monitoring wells around the downgradient periphery of the mound in the natural unconsolidated zone so that the well screens intersect the first encountered saturated zone.

For the purpose of installing the wells downgradient of the mound, Campbell will have to consult all available information (i.e., ground topography, published reports, maps, Geoprobe data, etc . . .) to approximate the direction of shallow ground water flow in the natural unconsolidated zone. Campbell will be required to submit a detailed sampling and analysis plan (SAP) per OAC rules 3745-54-97/3745-65-92 to include those methodologies for the drilling, installation, development, surveying, and sampling of the monitoring wells. Campbell should consult the Ohio EPA guidance documents entitled, Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring, (February 1995) for aid in preparing an adequate SAP.

During well drilling, Campbell shall collect continuous split-spoon soil samples for description and **fixed** laboratory analysis of VOCs and SVOCs. The wells should be installed to a minimum depth of 20 feet bls. Ohio EPA recommends that Campbell utilize 5-foot sections of PVC well screen. Due to the discontinuous nature of more permeable layers commonly observed within unconsolidated glacial till deposits in northwest Ohio, a 10-foot section of screen may also be utilized if warranted. Campbell shall sample the wells for VOCs per Method 8260B and SVOCs per Method 8270 and submit them to a fixed laboratory for analyses. Upon receipt of the analytical results, Campbell shall evaluate the data and provide a discussion of the results. If no organic COCs are detected in the shallow monitoring wells downgradient of the mound above corresponding method detection limits (or an alternative limit acceptable to the director) which provide the lowest limit of detection for the corresponding analytical method as specified in USEPA SW-846 Methods, then it can be concluded that no COCs have leached from the mound and impacted shallow ground water in the natural unconsolidated zone for the purpose of demonstrating clean closure of the former holding pits.

1.2 Campbell must revise the closure plan to provide the following information in one all-encompassing section of the closure plan to include the following items:

- Ground surface elevations of the mound and natural grade depicted on a topographic map with a scale no greater than 1 inch equals 30 feet and a contour interval no greater than 5 feet,
- Detailed descriptions and locations of the topographic features in the vicinity of the mound and at Campbell's plant which may affect conditions at the mound (i.e., buildings, rivers, ditches, etc . . .),
- Substantiation of the conclusions on page 11 regarding the barrier properties of the clay-rich native soils occurring underneath the mound,

  (This shall include more detailed discussion of the lithology of the natural unconsolidated materials beneath and adjacent to the mound to be supported

by Geoprobe or other such on-site borings, soil and ground water analytical data from the unconsolidated zone, and data to support the theory that the lithology of the unconsolidated zone inhibits vertical migration of COCs from the mound.)

- Discussion of bedrock beneath the mound (i.e., depth, lithology, ground water flow, etc . . .),
- Discussion of any geotechnical data collected (including permeability, grain size distribution, etc),
- Discussion of ground water occurrence and direction of flow in the unconsolidated zone beneath the mound, and
- An inventory of all wells within a 0.5-mile radius of Campbell's facility.

1.3 Section 4.5, page 8 includes a list of the constituents that were detected by the on-site laboratory, including benzo(g,h,i) perylene. Section 6.1, page 15 includes a similar list of all the constituents detected in the soil samples. This list includes all constituents listed on page 8 except benzo(g,h,i) perylene, but it also includes acetone and 1,4-dichlorobenzene which are not included on the list on page 8.

Campbell must revise these sections to explain the differences between these two lists and how they are to be used for site characterization and in determining the extent of contamination. Campbell must also state whether or not these constituents represent a comprehensive list of the chemicals of concern to be used in the risk assessment and ensure all COCs are accounted for in the risk assessment calculations.

1.4 Campbell shall revise Section 4.6, Page 9 to remove the assertion regarding no possibility for soil contamination to leach into the natural unconsolidated saturated zone.

1.5 It is premature to conclude, as stated in Section 13.0, page 25, there are no potential contacts to COCs within shallow ground water in the natural unconsolidated zone until this zone is adequately investigated.

If the installation and sampling of the monitoring wells indicates that shallow ground water within the natural unconsolidated zone is impacted by COCs migrating from the mound, then Campbell will be required to adequately delineate the full rate, extent, and concentrations of COCs in the zone per OAC rules 3745-65-93(D)(4) and implement an appropriate ground water monitoring program per OAC rules 3745-65-90(D). Campbell may also be required to evaluate all those potential risk receptors and exposure pathways in the closure plan (e.g., dermal and inhalation exposure to construction/utility workers) for the purposes of completing closure of the RCRA unit. The closure plan does not contain any ground water data to eliminate the natural unconsolidated zone as an exposure pathway at this point in the closure process.

Campbell shall revise Section 13 of the closure plan to remove the statement referenced above.

1.6 Campbell shall revise Sections 2.1, 3.0, 4.1, 4.2, 4.3, 4.6, and 4.8 to be consistent throughout the plan with regard to the changes required by Comment 1.

1.7 If it is determined that shallow ground water within the natural unconsolidated zone has been impacted by contaminants of concern, clean closure of the former holding pit via the ground water pathway may be demonstrated by removal/decontamination or by performing a site-specific risk assessment. These two closure alternatives are briefly summarized below. Utilization of either clean closure option discussed below would not relieve Campbell from first determining the full rate, extent, and concentrations of hazardous waste constituents in shallow ground water in the natural unconsolidated zone.

Clean closure via removal/decontamination

This closure alternative involves the implementation of a ground water monitoring program at the RCRA unit per OAC Rules 3745-54-90 to 99/3745-65-90(D) for the collection of a minimum of 8 rounds of site-specific ground water data encompassing at least a twelve month period. Sampling will be performed for all of the identified COCs, breakdown products, and those constituents reasonably expected to be in or derived from waste contained in the RCRA unit. If it can be documented that there are no organic (non-naturally occurring) constituents detected above PQLs which provide the lowest limit of detection for the corresponding analytical method as specified in USEPA SW-846 Methods during any of the 8 sampling events, then it will be concluded that the RCRA unit has not negatively impacted shallow ground water in the natural unconsolidated zone.

If during any of the sampling events non-naturally occurring constituents are detected above PQLs, then ground water monitoring shall continue a minimum of four additional quarters or until the four most recent sampling events do not show a detect for non-naturally occurring constituents. Instead of performing the additional ground water monitoring, Campbell may opt to perform a site-specific human health risk assessment for the ground water pathway.

Clean closure via risk assessment

This closure alternative also involves the implementation of a ground water monitoring program at the RCRA unit per OAC Rules 3745-54-90 to 99/3745-65-90(D). Campbell would be required to collect at least twelve (12) separate sample results from a total of at least three monitoring wells located within the plume. Ground water data would be used to determine ground water exposure point concentrations (EPCs) in the monitored zone. Upon determination of the ground water EPCs, Campbell would calculate the corresponding carcinogenic and noncarcinogenic risk for all appropriate receptors and exposure routes for the ground water pathway utilizing the appropriate use (industrial or residential) scenario.

If ground water monitoring had been adequately conducted per an approved program, and if ground water concentrations for the identified COCs are documented to be below health-based risk assessment standards, Campbell may use that data as part of their risk-based clean closure demonstration. The risk assessment demonstration would be submitted to Ohio EPA for review and approval as an amended closure plan.

2 Section 7.0, page 17 appears to indicate the excavation and screening will progress until elevation 685 AMSL is reached. It then details soil contained in the areas located in the second and third stages are assumed to be impacted and will be treated accordingly. However, the second stage, as defined on page 16, is from 680 to 675 AMSL. How the soil located between elevations 685 and 680 AMSL is to be handled is not clearly defined.

Campbell must revise this section to clarify this portion of the plan.

3 Section 8.0, page 20 of the closure plan lists the schedule and expected events for which the engineer will be on site and the events for which Ohio EPA will be notified.

3.1 Campbell must revise this section to indicate the registered professional engineer for the site will be on site shortly after the soil screening procedures indicate the initial elevation of contamination has been reached. It should also indicate Ohio EPA, NWDO shall be notified at least five days prior to the site visit.

3.2 Campbell must revise this section to indicate a certification report will be submitted within 60 days of completion of closure.

3.3 This schedule shall also address permits for waste water discharge, air pollution, and any other permitted activities that will affect the remediation activities. Please contact Ms. Lynette Hablitzel at (419) 373-3009 for issues related to waste water treatment and Mr. John Budge at (419) 373-3112 for issues regarding air emissions and ensure all applicable requirements are satisfied.

4 Section 14.0 contains details regarding the sampling analysis plan and analytical procedures to be followed.

4.1 Please note, once the contaminated soil is excavated, it will be considered to be a newly-generated waste. The material must be analyzed for the presence of hazardous waste characteristics as detailed in OAC rule 3745-52-11. The extraction method shall be the Toxicity Characteristic Leaching Procedure (TCLP) along with the appropriate analytical method. Should analytical results demonstrate the excavated soil to be characteristically hazardous, the material is subject to land disposal restrictions. **If the material is determined to be characteristically hazardous prior to treatment, it cannot be treated or disposed of on site without obtaining a RCRA Part B hazardous waste installation and operation permit.**

Campbell must revise Section 14.0 and the applicable portions of Section 7.0 to indicate the excavated material will be tested in accordance with Ohio Administrative Code (OAC) Chapters 3745-51 and 3745-52 at a frequency and locations acceptable to the director. Campbell should consult Ohio EPA's Closure Plan Review Guidance for RCRA Facilities, September 2000 for more information. Campbell must also include a discussion of what actions will be taken for material that is determined to be hazardous.

4.2 The sampling data included in the appendices of the closure plan is intended to be used to show the extent of contamination. However, the detection limits for those samples along the perimeter which are presumably clean were analyzed with very high detection limits compared to the limits normally expected to be used for SW-846 Methods 8260 and 8270 which may obscure the actual limits of contamination. This is due to the extraction procedure used for sampling. As indicated in SW-846, Method 5035, Section 1.8, "The closed-system purge-and-trap equipment employed for low concentration samples is not appropriate for soil samples preserved in the field with methanol. Such samples should be analyzed using Method 5030."

Section 6.2.2 of SW-846 indicates:

> The use of methanol preservation has not been formally evaluated by EPA and analysts must be aware of two potential problems. First, the use of methanol as a preservative and extraction solvent introduces a significant dilution factor that will raise the method quantitation limit beyond the operating range of the low concentration direct purge-and-trap procedure (0.5-200 µg/kg). The exact dilution factor will depend on the masses of solvent and sample, but generally exceeds 1000, and may make it difficult to demonstrate compliance with regulatory limits or action levels for some analytes.

The data also show unusually high surrogate recovery for the dilution factors indicated and many of the samples were less than 80% solids. These factors make the lab results useful as rough estimates of the limits of contamination at best.

Furthermore, the following table notes selected analytical results from Geoprobe soil screening samples collected from borings PB-01-33, 34, 35, 45, and 46 (refer to Tables 1 and 2 of the closure plan). Soil concentrations are presented in micrograms/kilogram (ug/kg).

Location/ Parameter	PB-01-32 8-9 feet bls	PB-01-32 14-15 feet bls	PB-01-45 10.5-11 feet bls	PB-01-43 8-9 feet bls	PB-01-34 8-9 feet bls
ethylbenzene	24,000	ND	21,000	ND	ND
xylenes	122,000	ND	50,890	ND	ND
1,3,5-trimethylbenzene	28,000	270	37,000	ND	ND
n-butylbenzene	25,000	ND	43,000	ND	ND
naphthalene	62,000	ND	21,000	ND	ND
2-methylnaphthalene	8,600	ND	5,000	ND	ND
pyrene	920	ND	ND	780	33,000
anthracene	520	ND	ND	ND	15,000
methylene chloride	ND	ND	700	ND	ND
fluoranthene	950	ND	ND	1,000	39,000

After a review of the soil boring analytical data and corresponding soil sampling intervals, it appears that impacted soils exist at and below the depth of perched ground water residing within the mound.

For these reasons, additional sampling must be performed to determine the extent of contamination. Campbell must revise the sampling and analysis plan and resubmit the closure plan to indicate the following:

4.2.1 Additional sampling beyond the extent shown in the closure plan will be performed either prior to or during the excavation or remediation

4.2.2 The extent of contamination shall be defined by at least two consecutive samples in both the horizontal and vertical directions where the analysis results in non-detects for all contaminants of concern.

4.2.3 The analytical methods will utilize detection limits appropriate for suspected clean samples. The detection limits shall be no more than the method detection limits for a given procedure or an alternative limit acceptable to the director.

4.3 Section 14.0 does not include enough information regarding the sampling analysis plan/protocol regarding perched water in the contaminated area or surface water that may come in contact with waste during the excavation. It also does not contain complete sampling information regarding sampling of treated soils, rinseate, surface water in the ditch north of the mound, suspected clean soils that are excavated, and any additional soil samples representing contaminations limits required in response to comment 4 above.

Campbell must revise this section to include the parameters to be analyzed, sampling frequencies, locations, type of sample, method of analysis, and all other pertinent sampling data for the items mentioned above.

4.4 Section 14.0 does not include enough information detailing how the appropriate number of samples of the excavation sidewalls and floor was determined. Ohio EPA's Closure Plan Review Guidance for RCRA Facilities, September 2000 specifies an acceptable method for determining how the appropriate number of samples is to be determined. Twelve is the minimum recommended number of samples to ensure statically significant data, but is not necessarily the appropriate minimum number to ensure the necessary clean up levels in the remaining soil have been attained.

Campbell must revise this section to include a narrative detailing a reasonable and statistically valid method of determining the minimum number of samples for the excavation sidewall and floor.

4.5 Campbell must revise Section 14.0 to indicate they will send copies of manifests and receipts to Ohio EPA, NWDO for any waste disposed off site. The plan must also be revised to state that Campbell will provide Ohio EPA with an estimate of volume for all wastes treated on-site and disposed off-site as a result of closure activities.

5 Campbell shall revise Section 17.0 to state documentation in the certification report shall at a minimum include those items listed in Section 3.18 of the Closure Plan Review Guidance for RCRA Facilities, September 2000. Any other applicable items, figures, or data must also be included.

6 Geoprobe boring PB-01-43 is not labeled on all figures included in the closure plan. Campbell shall appropriately revise the figures to clearly designate this boring.

7 Figure 4B notes soil analytical results for Geoprobe boring PB-01-34 at three different depth intervals (8-9 feet, 21-22 feet, and 25-26 feet). Figure 4B also contains analytical results from a depth interval of 11.5-16.5 feet. This latter interval corresponds to the well screen installed at Geoprobe boring PB-01-34 and the analytical data represents ground water and not soil.

Campbell shall revise Figure 4B to accurately label this boring. Ensure any other similar inconsistencies in the figures are revised accordingly.

8 In a letter dated April 3, 2001, from Ohio EPA, comment 4 stated the closure plan must include the appropriate waste codes for the wastes treated, stored, and disposed of in the pit. The closure plan does not appear to include that information. Ohio EPA expects that the appropriate waste code is D001.

Campbell must revise the appropriate section to include this information.

9 The closure plan does not detail what measures will be taken to prevent surface water run on and runoff or what will be done with surface water that comes in contact with waste.

Campbell must revise the appropriate section to indicate what measures will be taken regarding the items noted above.

10 The technology that is intended to be used to remediate the soil often involves a "test burn" or a bench scale trial to ensure the variable parameters in the process are established appropriately. The closure plan does not indicate such a test will take place.

Campbell must revise the appropriate section to discuss the necessity of such a burn. If one is planned, indicate how such a test will be conducted including notification to Ohio EPA, sampling procedures, and all other pertinent information.

INTER-OFFICE COMMUNICATION

TO: James Moseley, Remediation Group, DHWM-NWDO

FROM: John Weaver through Geoff Leking, Geologist 4, DDAGW-NWDO

DATE: April 10, 2002

SUBJECT: Campbell Soup Company, Henry County, OHD 005 419 171.

RCRA Site Closure Plan - Former Holding Pit, document dated October 25, 2001; GeoTrans, Inc. Received by Ohio EPA (NWDO) on October 31, 2001.

Introduction:

The Division of Hazardous Waste Management (DHWM) has requested that the Division of Drinking and Ground Waters (DDAGW) perform a review of the above referenced document.

The Campbell Soup Company (Campbells) is located in north-central Henry County at 1273 State Route 110, Napoleon, Ohio. Campbells occupies approximately 63 acres at the above address and produces, packages, and distributes food goods.

Campbells produced containers (cans) for food goods in an onsite manufacturing facility until July 1998. The steel cans were coated with a two-phase material to act as a rust inhibitor and to increase the durability of the cans. Excess and waste coating material, existing in a semi-solid state, and also spent solvents were periodically dumped into two onsite holding pits at Campbells from 1981 to 1983. These holding pits were constructed on top of an elevated area from onsite dirt obtained from excavation activities performed throughout the Campbells site. The holding pits were reportedly lined with natural clay and compacted prior to emplacing the wastes. The total dimensions of the holding pits were approximately 20 feet by 35 feet by 2-3 feet deep. Wastes contained in the pits were excavated in 1983, mixed with sand, and disposed of offsite at the Evergreen Landfill. Constituents of concern (COCs) associated with the holding pits are volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs).

Based in part on information submitted to Ohio EPA by Campbells, Ohio EPA identified the former holding pits as an unpermitted treatment, storage, and disposal unit subject to RCRA closure. Campbells was subsequently issued a Notice of Violation letter on May 16, 2000. Director's Final Findings and Orders were issued to Campbells on

October 18, 2000 and again on July 25, 2001 and required the facility in part, to close the former holding pits in accordance with OAC Rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20. The October 25, 2001 RCRA closure plan for the former holding pits is the subject of this review.

Compliance Issues:

The Campbell Soup Company closure plan for the former holding pits dated October 25, 2001 submitted per the July 25, 2001 Director's Final Findings and Orders is inadequate per OAC Rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20. Refer to the comments and conclusions below for specific explanations.

Conclusions:

1. Campbell Soup Company should review comments 3 through 10 below and submit the appropriate documentation to Ohio EPA for review and approval to resolve all outstanding ground water issues.

2. For questions, please contact John Weaver, Division of Drinking and Ground Waters, Northwest District Office, Ohio EPA, at (419) 373-3098. Any written correspondence should be sent to James Moseley, Division of Hazardous Waste Management, Northwest District Office, Ohio EPA, 347 North Dunbridge Road, Bowling Green, OH, 43402.

Comments:

1. The former holding pit area [RCRA unit] was constructed on top of a mound created from fill soils obtained from other portions of the Campbell Soup Company (Campbells) property (Figure 1). According to the closure plan, clay from a local source was used to construct containment dikes and to line the pits. Pertinent dimensions and elevations of the mound and natural grade are provided below:

    - the artificial mound which contained the former holding pits is approximately 20-25 feet above natural grade (Section 4.1, page 5); the elevation of the mound ranges from 680.2 - 689.8 feet above mean sea level (AMSL) [ground surface elevations from Geoprobe borings PB-01-51 and PB-20];

- the average elevation of the top of the former holding pit is approximately 686.97 feet AMSL (ground surface elevations from Geoprobe borings PB-05, 10, 15, 14, 12, 08, 02, 03, and 09);

- total dimension of former holding pit area is 20 feet wide, by 35 feet long, by 2-3 feet deep (Section 2.1, page 3);

- the elevation of natural grade surrounding the mound ranges is approximately 670.06 feet AMSL (ground surface elevation from location designated as "BOTTOM n. Toe";

- if the base of the pit was 3 feet deep or approximately 683.97 AMSL, then there is approximately 14 feet of separation between the base of the pit and natural grade; Campbells states that the former holding pit was approximately 11-16 feet above natural grade during its active phase (Section 4.1, page 5).

2. Provided below is a brief discussion of the geology and hydrogeology of the former holding pits and Campbells' property. Information was obtained from Geoprobe soil and ground water samples collected at Campbells in May 2000 and from published maps and reports at Ohio EPA (Figures 1 and 2).

- the mound is comprised of varying amounts of fill material and glacial till consisting of sand, silt, and clay with trace gravel; fill material consists of concrete, slag, rubber, wood, and asphalt (Section 4.2, page 5);

- based on Geoprobe boring logs for PB-01-38 and PB-01-51, which were installed off the confines of the mound, the lithology of the natural grade consists of silty sand to a depth of 4 feet below land surface (bls) and silty, sandy gray to olive clay to a depth of 16 feet bls;

- bedrock occurs at an elevation of approximately 620 feet AMSL per the ODNR Napoleon East bedrock topography map; the approximate topography of the Campbells' site in the vicinity of the mound is 680 feet AMSL; therefore, the thickness of unconsolidated material from the top of the mound to the top of bedrock is approximately 60 feet; and

- discontinuous lenses of more permeable material have been observed within the mound (Section 4.6, page 9); however, only 5 of the 37 Geoprobe borings completed at the mound, PB-01-33, 34, 35, 45, and 46, contained an adequate amount of perched ground water for sampling purposes (Figure 1); and

- wet or saturated soils indicating the presence of perched ground water within the mound have been identified at depths throughout the mound as indicated by Geoprobe boring data.

3. Overall, Campbells has failed to provide a sufficient discussion of the site-specific geology and hydrogeology of the site in Sections 2.1, 3.0, 4.1, 4.2, 4.3, 4.6, and 4.8 of the closure plan. Campbells should include additional text/information in one all-encompassing section of the closure plan to include the following items:

   - ground surface elevations of the mound and natural grade;

   - topographic features in the vicinity of the mound and at the Campbells' plant which may affect conditions at the mound (i.e., buildings, rivers, ditches, etc...);

   - more detailed discussion of the lithology of the natural unconsolidated materials beneath and adjacent to the mound (from other soil borings completed at Campbells?);

   - discussion of bedrock beneath the mound (i.e., depth, lithology, ground water flow, etc...);

   - discussion of any geotechnical data collected;

   - discussion of ground water occurrence and direction of flow in the unconsolidated zone beneath the mound; and

   - inventory of all wells within a 0.5-mile radius of Campbells.

4. The following table notes selected analytical results from Geoprobe soil screening samples collected from borings PB-01-33, 34, 35, 45, and 46 (refer to Tables 1 and 2 of the closure plan). Geoprobe soil screening samples were analyzed by an on-site mobile laboratory for analysis of volatile organic

compounds (VOCs) and semi-volatile organic compounds (SVOCs) per Methods 8260/5035 and 8270, respectively. VOC soil samples were preserved using methanol per Method 5035. Soil concentrations are presented in micrograms/kilogram (ug/kg).

Location/ Parameter	PB-01-32 8-9 feet bls	PB-01-32 14-15 feet bls	PB-01-45 10.5-11 feet bls	PB-01-43 8-9 feet bls	PB-01-34 8-9 feet bls
ethylbenzene	24,000	ND	21,000	ND	ND
xylenes	122,000	ND	50,890	ND	ND
1,3,5-trimethylbenzene	28,000	270	37,000	ND	ND
n-butylbenzene	25,000	ND	43,000	ND	ND
naphthalene	62,000	ND	21,000	ND	ND
2-methylnaphthalene	8,600	ND	5,000	ND	ND
pyrene	920	ND	ND	780	33,000
anthracene	520	ND	ND	ND	15,000
methylene chloride	ND	ND	700	ND	ND
fluoranthene	950	ND	ND	1,000	39,000

Ohio EPA DDAGW recommends that Ohio EPA DHWM review the Geoprobe soil screening data to determine if the full vertical and horizontal rate, extent, and concentrations of hazardous waste constituents has been delineated on and off the mound area. It is clear from a review of the soil boring analytical data and corresponding soil sampling intervals that impacted soils exist at and below the depth of perched ground water residing within the mound.

It is unclear from a review of the closure plan text, data tables, and maps which Geoprobe borings were installed into natural unconsolidated materials outside of the mound area. It is also unclear what the corresponding soil analytical results are for these borings. Campbells shall include the appropriate text in the closure plan to identify those Geoprobe borings installed outside of the mound area and to reference the corresponding soil analytical results for the borings.

Figure 4B of the closure plan notes soil analytical results for Geoprobe boring PB-01-34 at three different depth intervals (8-9 feet, 21-22 feet, and 25-26 feet). Figure 4B also analytical results from a depth interval of 11.5-16.5 feet. This

latter interval corresponds to the well screen installed at Geoprobe boring PB-01-34 and the analytical data represents ground water and not soil. Figure 4B should be revised appropriately.

Geoprobe boring PB-01-43 is not labeled on all figures included in the closure plan. Campbells shall appropriately revise the figures to clearly designate the boring.

5. The following table notes selected analytical results from Geoprobe ground water screening samples collected from borings PB-01-33, 34, 35, 45, and 46 (refer to Tables 1 and 2 of the closure plan). For clarification, Campbells installed 1-inch Geoprobe PVC wells with five-foot screens within the Geoprobe boreholes noted above to collect the perched ground water samples (Section 4.6, page 9). The screens were installed at depth intervals ranging from 11-16.5 feet bls. Ground water screening samples were analyzed by an onsite mobile laboratory for analysis of VOCs and SVOCs per Methods 8260 and 8270, respectively. Ground water concentrations are presented in micrograms/liter (ug/l).

Location/ Parameter	PB-01-33	PB-01-34	PB-01-35	PB-01-45	PB-01-46
benzene	7	9	2	3	1
ethylbenzene	70	170	11	160	19
xylenes	44	71	9	271	42
1,2,4-trimethylbenzene	450	81	17	400	45
methyl 4,2-propanone	65	2	ND	ND	4
naphthalene	53	8	ND	76	4

Campbells states that perched ground water residing within the mound and impacted soils identified from the Geoprobe borings generally occur at an elevation above that of natural grade (Section 4.3, page 6). As such, Campbells concludes that shallow ground water in the natural unconsolidated zone cannot be affected by the mound and is not a completed exposure pathway for the purposes of the former holding pit closure investigation (Section 4.8, page 12).

Ohio EPA disagrees with Campbells' conclusion that the potential for impacts to natural shallow ground water is extremely low based upon the following items:

- if the ground surface elevation of Geoprobe boring PB-01-34, for example, is 689.3 feet AMSL, the bottom of the PVC Geoprobe well screen is 16.5 feet bls or 672.8 feet AMSL, and the elevation of natural grade is approximately 670.06 feet AMSL, then there is only 2.74 feet of separation between the bottom of the well screen and natural grade;

- based upon the table above, a number of VOCs and SVOCs were detected in perched ground water at a depth of 11.5-16.5 feet bls at boring PB-01-34, including benzene above its maximum contaminant level (MCL); this indicates that impacted perched ground water within the mound exists only 2.74 feet above natural grade

- Campbells states in the closure plan that perched ground water may exit the mound via seeps along the mound walls and along the basal portion of the mound (Section 4.3, page 6 and Section 4.7, page 10);

- no shallow ground water screening data from the natural unconsolidated zone off the mound has been presented in the closure plan;

- detections of organics in soils has been detected at a depth of at least 16 feet below the top of the mound (boring PB-01-25); Campbells concedes that the extent of soil impacts is much larger than the physical limits of the former holding pit area (Section 2.1, page 3);

- while it has been reported that the former holding pit was constructed with clay containment dikes and a clay bottom, the same cannot be said for the mound which is comprised of varying amounts of fill, sand, silt, and clay which has undergone periods of reworking, settlement, and disturbance since its construction; the variable composition and reworking of the mound may have created preferential pathways allowing increased migration of COCs from the sides and underneath the mound;

- while it is true that potable water is supplied to Campbells from sources other than shallow natural unconsolidated zone, if this

zone is impacted from COCs migrating from the mound, there may be other associated risks including dermal and inhalation exposures to onsite construction and utility workers; Campbells states in Section 4.7, page 11 that there is the potential for exposure to seeps that may be discharging from locations around the periphery of the mound; and

- impacted residual soils and fill have been residing in the former holding pit area and portions of the mound since at least 1981; potential leaching of COCs from the mound may have been occurring for a period of 22 years; Campbells has provided no evidence that impacted soils and perched ground water have not leached COCs to underlying native unconsolidated materials and shallow ground water.

Therefore, in order to adequately characterize any affects to shallow ground water in the natural unconsolidated zone from the mound/former holding pit area, Campbells shall install a minimum of three monitoring wells around the downgradient periphery of the mound in the natural unconsolidated zone so that the well screens intersect the first encountered saturated zone. For the purpose of installing the wells downgradient of the mound, Campbells will have to consult all available information (i.e., ground topography, published reports, maps, Geoprobe data, etc...) to approximate the direction of shallow ground water flow in the natural unconsolidated zone. Campbells will be required to submit a detailed sampling and analysis plan (SAP) per OAC Rules 3745-54-97/3745-65-92 to include those methodologies for the drilling, installation, development, surveying, and sampling of the monitoring wells. Campbells should consult the Ohio EPA guidance documents entitled, 'Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring,' (February 1995) for aid in preparing an adequate SAP.

During well drilling, Campbells should collect continuous split-spoon soil samples for description and fixed laboratory analysis of VOCs and SVOCs. The wells should be installed to a maximum depth of 20 feet bls due to the presence of clay rich tills and hardpan, identified from local private well logs, located at greater depths which would inhibit the occurrence and flow of shallow ground water in the natural unconsolidated zone. Ohio EPA recommends that Campbells utilize 5-foot sections of PVC well screen; due to the discontinuous nature of more permeable layers commonly observed within unconsolidated glacial till deposits in northwest Ohio, a 10-foot section of screen may also be

utilized if warranted. Campbells shall sample the wells for VOCs per Method 8260B and SVOCs per Method 8270 and submit them to a fixed laboratory for analyses. Upon receipt of the analytical results, Campbells shall evaluate the data and provide a discussion of the results. If no organic COCs are detected in the shallow monitoring wells downgradient of the mound above corresponding practical quantitation limits (PQLs) which provide the lowest limit of detection for the corresponding analytical method as specified in USEPA SW-846 Methods, then it can be concluded that no COCs have leached from the mound and impacted shallow ground water in the natural unconsolidated zone for the purpose of demonstrating clean closure of the former holding pits (refer to Comment 10 below for additional information).

6. Ohio EPA DDAGW disagrees with Campbells' assertion that there is no possibility for soil contamination to leach to the natural unconsolidated saturated zone (Section 4.6, page 9). Refer to Comment 5 above.

7. It is premature for Campbells' to state that no natural shallow ground water is impacted beneath the unit as they have not provided any screening or confirmational analytical data in the closure plan to confirm this (Section 4.6, page 9). Upon completion of the additional closure investigation activities noted in Comment 5 above, Campbells can then evaluate the quality of natural shallow ground water downgradient of the mound.

8. Campbells states in several sections of the closure plan, including Section 4.7, page 11, that clay-rich native soils occurring underneath the mound act as a low permeability barrier to continued vertical migration. The closure plan does not clearly state which Geoprobe boring installed on top of mound, or at any other location for that matter, actually penetrates native soil and what the lithology of the native soils are. Campbells should provide a discussion in the closure plan as to which Geoprobe borings penetrate natural grade, what the lithology of the natural grade unconsolidated zone is, soil and ground water analytical data from the unconsolidated zone, and data to support the theory that the lithology of the unconsolidated zone inhibits vertical migration of COCs from the mound.

9. It is premature for Campbells to conclude that there are no potential risk-related contacts to COCs within shallow ground water in the natural unconsolidated zone until this zone is adequately investigated per Comment 5 above (Section 13.0, page 25). If the installation and sampling of the monitoring wells indicates that shallow ground water within the natural unconsolidated zone is impacted by COCs migrating from the mound, then Campbells will be required to adequately

delineate the full rate, extent, and concentrations of COCs in the zone per OAC Rules 3745-54-90(A)(2)/3745-65-93(D)(4) and implement an appropriate ground water monitoring program per OAC Rules 54-90 to 99/3745-65-90(D). Campbells may also be required to evaluate all those potential risk receptors and exposure pathways in the closure plan (e.g., dermal and inhalation exposure to construction/utility workers) for the purposes of completing closure of the RCRA unit. The closure plan does not contain any ground water data to eliminate the natural unconsolidated zone as an exposure pathway at this point in the closure process.

10. If Campbells determines that shallow ground water within the natural unconsolidated zone has been impacted by COCs, clean closure of the former holding pit via the ground water pathway may be demonstrated by removal/decontamination or by performing a site-specific risk assessment. These two closure alternative are briefly summarized below. Utilization of either clean closure options discussed below would not relieve Campbells from first determining the full rate, extent, and concentrations of hazardous waste constituents in shallow ground water in the natural unconsolidated zone.

Clean closure via removal/decontamination

This closure alternative involves the implementation of a ground water monitoring program at the RCRA unit per OAC Rules 3745-54-90 to 99/3745-65-90(D) for the collection of a minimum of 8 rounds of site-specific ground water data encompassing at least a twelve month period. Sampling will be performed for all of the identified COCs, breakdown products, and those constituents reasonably expected to be in or derived from waste contained in the RCRA unit. If it can be documented that there are no organic (non-naturally occurring) constituents detected above PQLs which provide the lowest limit of detection for the corresponding analytical method as specified in USEPA SW-846 Methods during any of the 8 sampling events, then it will be concluded that the RCRA unit has not negatively impacted shallow ground water in the natural unconsolidated zone.

If during any of the sampling events non-naturally occurring constituents are detected avoid PQLs, then ground water monitoring shall continue a minimum of four additional quarters or until the four most recent sampling events do not show a detect for non-naturally occurring constituents. Instead of performing the additional ground water monitoring, Campbells may opt to perform a site-specific human health risk assessment for the ground water pathway.

Clean closure via risk assessment

This closure alternative also involves the implementation of a ground water monitoring program at the RCRA unit per OAC Rules 3745-54-90 to 99/3745-65-90(D). Campbells would be required to to collect at least twelve (12) separate sample results from a total of at least three monitoring wells located within the plume. Ground water data would be used to determine ground water exposure point concentrations (EPCs) in the monitored zone. Upon determination of the ground water EPCs, Campbells would calculate the corresponding carcinogenic and noncarcinogenic risk for all appropriate receptors and exposure routes for the ground water pathway utilizing the appropriate use (industrial or residential) scenario. If ground water monitoring had been adequately conducted per an approved program, then if ground water concentrations for the identified COCs are documented to be below health-based risk assessment standards, Campbells may use that data as part of their risk-based clean closure demonstration. The risk assessment demonstration would be submitted to Ohio EPA for review and approval as an amended closure plan.

ec: Michael Terpinski, DHWM-NWDO
James Moseley, DHWM-NWDO
pc: Jeff Patzke, DDAGW-CO
DDAGW-NWDO File

Work ID: 5000001997

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Bottom n. Toe 670.07
X ?

N

APPROXIMATE EXTENT OF ELEVATED FILL AREA

AREA OF PERCHED WATER EXCEEDING CRITERIA

APPROXIMATE LOCATION OF FORMER HOLDING AREA

B

B'

PB-01-35 (11-16')
water
Benzene 2
Ethylbenzene 11
Xylenes 9
1,3,5-TMB 2
1,2,4-TMB 17
Remaining VOCs ND
SVOCs ND

PB-01-33 (11-16')
water
Benzene 7
Ethylbenzene 70
Xylenes 44
Isopropylbenzene 14
n-Propylbenzene 33
1,3,5-TMB 4
tert-Butylbenzene 4
1,2,4-TMB 450
sec-Butylbenzene 23
n-Butylbenzene 40
MIBK 65
Remaining VOCs ND
Naphthalene 53
Remaining SVOCs ND

PB-01-46 (11-16')
water
Benzene 1
Ethylbenzene 19
Xylenes 42
Isopropylbenzene 3
1,3,5-TMB 9
tert-Butylbenzene 3
1,2,4-TMB 45
MIBK 4
Remaining VOCs ND
Naphthalene 4
Remaining SVOCs ND

PB-01-45 (11-16')
water
Benzene 3
Toluene 1
Ethylbenzene 160
Xylenes 271
Isopropylbenzene 17
n-Propylbenzene 32
1,3,5-TMB 58
tert-Butylbenzene 3
1,2,4-TMB 400
sec-Butylbenzene 16
p-Isopropyltoluene 21
n-Butylbenzene 43
Remaining VOCs ND
Naphthalene 76
2-Methylnaphthalene 13
Remaining SVOCs ND

PB-01-34 (11.5-16.5')
water
Benzene 9
Ethylbenzene 170
Xylenes 71
Styrene 1
Isopropylbenzene 12
n-Propylbenzene 19
1,3,5-TMB 7
1,2,4-TMB 81
sec-Butylbenzene 7
p-Isopropyltoluene 3
n-Butylbenzene 6
MIBK 2
Remaining VOCs ND
Naphthalene 8
Remaining SVOCs ND

PB-01-38, PB-01-39, PB-01-37, 682.50 PB-01-36, PB-01-46, PB-22, PB-21, 686.30 PB-01-47, 689.70 PB-01-45, PB-18, 680.20 PB-01-51, PB-20, PB-05, PB-11, PB-01-48, PB-19, PB-04, PB-10 687.30, PB-01, PB-15 687, PB-17, PB-01-29, PB-03, PB-09, 686.70 PB-14, PB-01-30, PB-01-31, PB-02, PB-08 686.70, PB-16, PB-01-25, PB-13, PB-01-49, PB-01-34 689.30, PB-07, PB-01-23, PB-12 686.50, PB-01-26, PB-06, PB-01-24, PB-01-28, PB-01-32, PB-01-41, PB-01-40, PB-01-35, PB-01-33, PB-01-27 688.70, PB-01-50, 43, PB-01-42

NOTES:

1. DATA ARE PRESENTED IN µG/L.
2. PRESENTED DATA IS FROM MAY 2001 SAMPLING EVENT.
3. RED TEXT INDICATES CONCENTRATIONS ARE ABOVE OHIO EPA RESIDENTIAL DIRECT CONTACT CRITERIA, ADJUSTED FOR MULTIPLE CHEMICALS.

LEGEND:

VOCs = VOLATILE ORGANIC COMPOUNDS
SVOCS = SEMIVOLATILE ORGANIC COMPOUNDS
TMB = TRIMETHYLBENZENE
MIBK = METHYL 4,-2-PROPANONE
MEK = BUTANONE 2

elevation in RED

FIGURE 1

GeoTrans, Inc.
A TETRA TECH COMPANY

30' 15' 0 30' 60'
SCALE: 1" = 30'

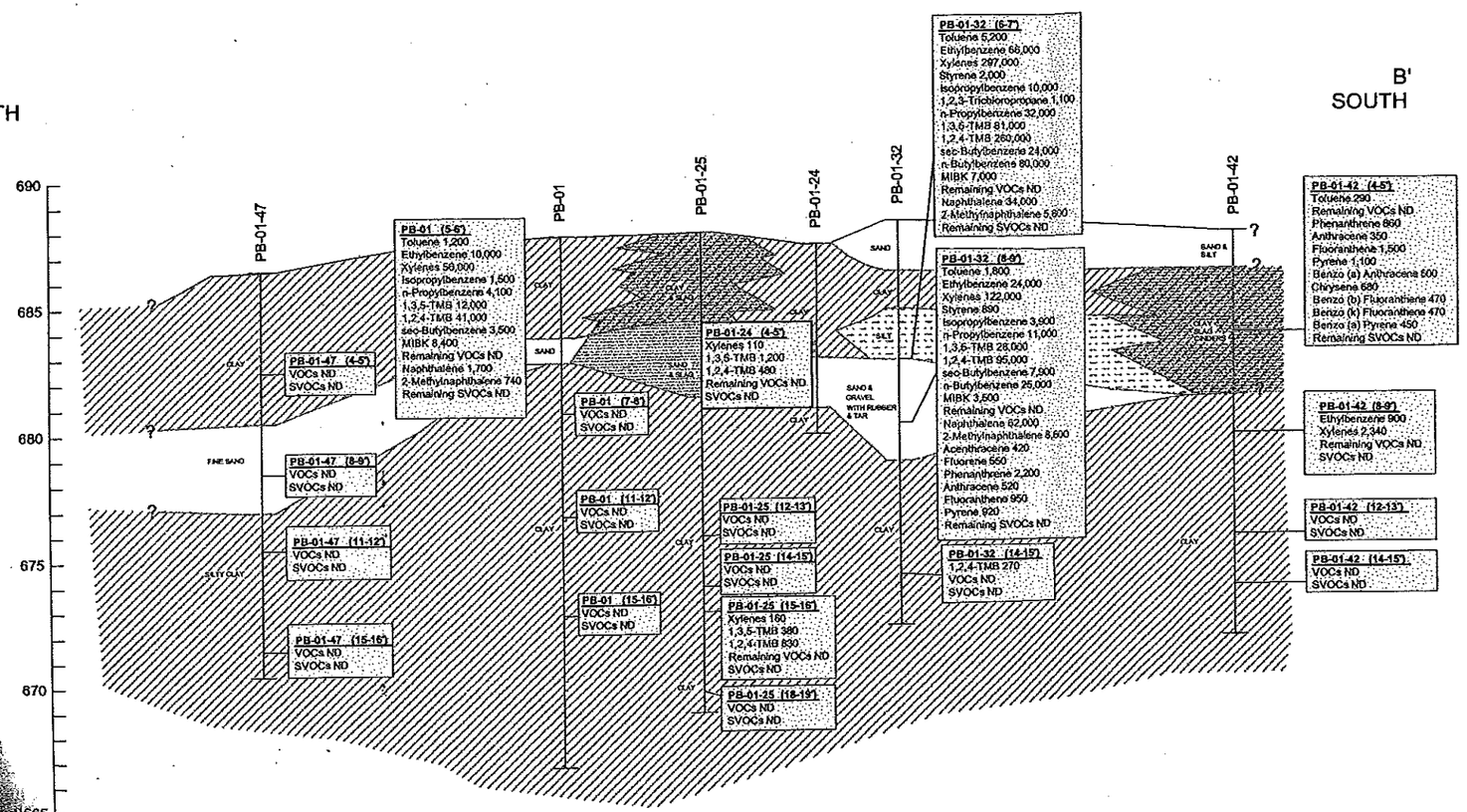
CHECKED: CAS
DATE: 10/23/01

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO
AREA OF PERCHED WATER CONTAMINATION

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 10/23/01 LAB 1

B
NORTH

B'
SOUTH



NOTES:

1. DATA ARE PRESENTED IN µG/KG.
2. PRESENTED DATA IS FROM MAY 2001 SAMPLING EVENT.
3. RED TEXT INDICATES CONCENTRATIONS ARE ABOVE OHIO EPA RESIDENTIAL DIRECT CONTACT CRITERIA, ADJUSTED FOR MULTIPLE CHEMICALS.

LEGEND:

- SAND
- CLAY
- SILT
- FILL: CONCRETE, SLAG, RUBBER, WOOD, ASPHALT

FIGURE 2

GeoTrans, Inc.

DATE 10/23/01

30' 15' 0 30' 60'

SCALE: HORIZONTAL 1" = 30'

5 X VERTICAL EXAGGERATION

VERTICAL SCALE 1" = 6'

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

LITHOLOGIC CROSS SECTION
B - B'

Campbell Soup 2003 Jan- Sep

12-773 SR 110, Napoleon OHD 005 419 171

Henry County MAIN PLANT DHWM

Smead®
UPC 10330
No. 1531

MINIMUM RECYCLED CONTENT

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

Meeting Notes-Campbell Soup Company

Ohio EPA Meeting with Campbell Soup Company and GeoTrans, Inc.
Notice of Deficiency for the Closure Certification Report

Monday, September 29, 2003
12:00 PM to 2:00 PM
Conference Room A, Northwest District Office

Attendees:

Dr. Osman Aly-Campbell Soup Company
Michael Kovacich-GeoTrans, Inc.
Tesha Humphriss-GeoTrans, Inc.
Eric Getz-Ohio EPA, DHWM (from 12:00 PM to approximately 12:20 PM, Comments 1-8)
Michael Terpinski-Ohio EPA, DHWM (from approximately 12:20 PM to 2:00 PM, Comments 8-37)
Kara Reynolds-Ohio EPA, DHWM

This meeting was held to discuss Ohio EPA's NOD for the RCRA Closure Certification Report, Former Holding Pit Unit and the Response to Comments document from Campbell Soup Company (CSC).

Eric Getz sat in on the meeting until Michael Terpinski returned.

There were no major changes to CSC's responses concerning Ohio EPA's comments. CSC plans to follow the recommendations that Ohio EPA has requested for the revised certification. The only changes are as follows:

Comment 3-CSC will include an explanation of why the plan was not followed.

Comment 8-CSC will include an explanation of such things as what target depths are, how they were found and the actual depths (in feet), etc.

Comment 26-CSC did not take a field blank at a minimum of one per sampling day. Because of this, CSC will not be able to screen out any contaminants of concern from the risk assessment on account of lab contamination.

From: Kara Reynolds
To: Humphriss, Tesha
Date: 9/25/03 10:11AM
Subject: Re: GCN's for Campbell Certification Report

Tesha,

I received your request for the GCN's. As soon as I get the answers for you, I will pass that information on. However, I am not the person in charge of actually calculating the GCN's so I don't know exactly how long it will take. But I am working on it. As soon as I know something, I will e-mail you.

Please feel free to call me if you have any other questions about the risk.

Thanks,

Kara

>>> "Tesha Humphriss" <thumphriss@geotransinc.com> 09/25/03 08:49AM >>>
In follow-up to my voice mail this morning, the following 3 parameters do not have GCNs listed on either Attachment provided by the Ohio EPA(Attachment A from the Revised Closure Plan Approval Letter or Table 1 from the Cert Report NOD) - Can you provide the single chemical non-cancer and cancer direct contact numbers for acenaphthylene, chlorodibromomethane, and 2-hexaone?
Thanks!
Tesha

Tesha Humphriss
Project Engineer
GeoTrans, Inc
(734) 213 4068 direct
(734) 213 5008 fax
thumphriss@geotransinc.com

From: Kara Reynolds
To: mkovacich@geotransinc.com
Date: 9/24/03 2:36PM
Subject: Monday's Meeting

Mike,

We will not be able to move the meeting to 11:30 AM on Monday, September 29. Mike Terpinski has prior obligations and will be a little late as is. So I will plan on meeting with you at noon on Monday. Do you need directions to our office? Please let me know if you have any other questions or concerns.

Thanks,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: Terpinski, Michael

GeoTrans, Inc.
A TETRA TECH COMPANY

710 Avis Drive
Ann Arbor, MI 48108

www.geotransinc.com

734-213-2204 FAX 734-213-5008

RECEIVED
SEP 24 2003

September 23, 2003

Ms. Kara Reynolds
Ohio Environmental Protection Agency – NWDO
347 North Dunbridge Rd.
Bowling Green, Ohio 43402

Re: Response to Attachment A Comments from Ohio EPA Notice of Deficiency
RCRA Site Closure Certification Report Former Holing Pit Unit
Campbell Soup Supply Company, Napoleon, Ohio

Dear Ms. Reynolds:

On July 3, 2003, Campbell Soup Supply Company L.L.C. (Campbell), submitted the *RCRA Site Closure Certification Report, Former Holding Pit Unit* (Certification Report) to the Ohio Environmental Protection Agency (Ohio EPA). The subject of the Certification Report was the closure of the former holding pit at the facility located at 1273 State Route 110, in Napoleon, Ohio. The Certification Report presented the methods and procedures used to remediate and close the former holding pit. The Ohio EPA reviewed the Certification Report and issued a *Notice of Deficiency*, dated September 4, 2003. The *Notice of Deficiency* included an attachment (Attachment A) detailing Ohio EPA's comments. This letter presents our response to each comment and our proposed plan for revising the Certification Report.

In general, the comments fall into two categories: comments that request additional explanation regarding the reasons for minor modifications to the Closure Plan, and comments regarding the risk analysis. Representatives of Campbell worked closely with Ohio EPA staff throughout the closure process and provided written documentation regarding modification to the plan when requested by the Ohio EPA. Nearly all of the modifications to the closure plan were made because of weather, changing site conditions, excavation methods, and treatment system constraints. Additional detail explaining each modification is provided below in our responses to your comments.

We have requested a meeting with the Ohio EPA to discuss the comments and our proposed plan for revising the Certification Report. We are sending this letter in advance of the meeting for your review. We plan to revise the Certification Report and incorporate each of our responses, as well as the results from the additional activities that you have requested. Additional text, figures and tables will be a provided in the revised Certification Report, as agreed upon during the meeting.

Following is a detailed response to the numbered comments in Attachment A:

1. Campbell will submit a revised certification report to the Ohio EPA. The revised report shall follow the editorial protocol and convention presented in the Ohio EPA Notice of Deficiency, dated September 4, 2003.

2. Campbell will define "clean soil" in the Certification Report as soil that meets risk-based clean closure levels.

3. In the Closure Plan an area located approximately 100 yards to the northwest of the former holding pit and near the northwest base of the elevated area was described as a ditch. The ditch is located beneath a piping run and is clearly visible on the aerial photograph presented as Figure 2 in the Certification Report. Surface water runoff was observed in the ditch following a very significant rain event that occurred during the May 2001 investigation. This observation lead to the inclusion of the ditch as an alternate sampling point for the seeps. However, the ditch is predominately dry and water was not observed in the ditch during closure activities. Therefore, collection of a surface water samples from seeps or the swale was not possible. The Revised Certification Report will include this explanation.

4. All soil samples were collected from approximately 3 to 4 inches beneath the surface of the excavation floor and sidewalls. The elevation of the sample locations was determined by level survey at a later date. All analytical tables will be revised to include the sample depths or sample elevations where appropriate.

5. As explained on page 21 of the Closure Plan, the purpose of the initial soil excavation was to remove non-impacted overburden from the elevated area. Field screening with a photo ionization detector (PID) was performed in accordance with Section 7 of the Closure Plan. The over burden was segregated into suspected clean and intermediate (indeterminate in the Closure Plan) soil stockpiles. The initial soil excavation began before the treatment system was operational. Therefore, contaminated soil was left in the excavation until the treatment system and the temporary contaminated soil staging was constructed. The methodologies detailed in the Closure Plan were strictly followed, no alteration in the Closure Plan occurred at this point in the project.

6. Section 3.3 of the Certification Report will be modified to include the following: "(0.0-9.9)" after the phrase "less than 10 ppm" in the first bullet and "(10.0-99.9)" after the phrase "less than 100 but higher than 10 ppm" in the second bullet. During initial excavation activities one soil sample exhibited a PID reading of 10.0 ppm. This soil was considered intermediate (indeterminate in Closure Plan) and was placed in the intermediate soil stockpile.

7. The reference to "100-ton sample grid" at the top of page 11 was an error. The Certification Report will be revised to state "100-yard sample grid".

8. Target depths were measured during excavation activities using level and rod survey techniques. A comprehensive level survey of the entire excavation floor was conducted following Ohio EPA's inspection of the excavation. Methodologies to determine the target depth will be included in the Revised Certification Report. In addition, a figure and a table will be prepared to present the location and the fate of each sample collected at the site. The figure will include the final excavation grade and the locations of all the samples collected at the site from 1999 through 2003.

9. As detailed in Section 3.4 of Certification Report, soil was not excavated in horizontal stages ("layer cakes") but rather in thirds ("troughs") from west to east. The three principle reasons for this change were:

    - To avoid the use of second staging area for the treated soil, the excavation strategy was modified to facilitate closure and backfill of the excavation in thirds. This was required due

to limited capacity (1200 tons) near the treatment system discharge. However, a second treated soil staging area was later implemented due to construction debris encountered in the western third of the excavation.

- To completely remove the impacted soil from each area and prevent cross-contamination by equipment used to excavate and transport contaminated soil.

- To be more efficient by excavating all the way down to the target depths in each area rather then excavating in the same area two or three times.

Target depths were determined during excavation activities by level survey.

10. Sample analysis for VOCs requires preservation in the laboratory, with sodium bisulfate, within 48 hours of sample collection in an Encore. After preservation, samples must be analyzed within 14 days. In addition, the excavation remained open for inspection by the Ohio EPA and our Ohio registered professional engineer. The open excavation facilitated the collection of additional certification samples when requested by Ohio EPA as detailed in Section 4.2 and 4.3 of the Certification Report.

    The number of confirmation samples was adequate to demonstrate that the impacted soils was remediated or removed from the site.

11. The vertical site delineation sampling was completed in accordance with the approved plan, after all of the contaminated soil was removed from the excavation. The excavated soil was placed back into the test pits.

12. Sample locations were selected through biased sampling instead of random sampling. Section 4.7 of the Certification Report will be revised to present the following biased selection criteria for the vertical site delineation sample locations:

    - Proximity to known areas of impact identified during the investigation and remediation (TP-2 and TP-3),

    - Because no other samples were collected in the general area, the test pits samples would provide another check to be certain that the additional impact did not exist at lower elevations (TP-1 and TP-4).

13. Geoprobe samples were not collected because the excavator was already available on site for digging test pits. In addition, a test pit provided visual inspection for potential impact.

14. Although the tests pits were placed near floor samples, this was not the only criterion used for their selection. Please see our response to comment #12.

15. Sample depths or sample elevations will be included on all tables where appropriate.

16. Table 6a and 6b were incorrectly labeled. "Depth in Feet" should have been labeled as "Tons of Treated Soil". The tables will be corrected and included in the revised Certification Report.

17. Table 9 will be revised to include the J values such as 3.2 ug/kg reported for 1,3,5-trimethylbenzene at FL-35.

18. The coefficient of variance test was performed on the confirmation samples in accordance with Section 14.6.4 of the approved Closure Plan.

19. The power plant will be labeled on Figure 2 of the Revised Certification Report.

20. The sample nomenclature for grid cell SW-46 was complicated by the additional excavation of impacted soil and the subsequent sampling that occurred in this area. Additional samples were collected as detailed in Section 4.4 of the Certification Report. SW-46 (X) corresponds to grid cell 46, where X represents the sequential sample collected after each phase of the additional soil excavation. The last sidewall sampled collected at SW-46 was SW-46 (4).

    SW-46-6' was labeled independently because it was investigative in nature and represented the southeastern face at 6 feet below surface grade. SW-46-6' was collected for two reasons:

    - Field observations suggested impact at that depth,
    - The additional excavation in that area spanned two grid intervals.

21. The Ohio EPA requests additional information to be presented in Appendix A. The following letters correspond with comment #21 in Attachment A of the Notice of Deficiency:

    a. We apologize for omitting the health and safety plan (HASP) from the Certification Report. Two HASPs will be included in the revised Certification Report. The first, dated August 13, 2002, was for the August/September 2002 soil and groundwater investigation. The second, dated August 28, 2002, was for the remediation portion of the project.

    b. As stated in Section 4.8 of the Certification Report "Of the 3,300 tons transported to the Williams County Landfill during the first disposal event, approximately 100 tons of soil from treated soil pile #4 was added as mixing sand, due to the high water content of a portion of the impacted soil in the stockpile area." The 100 ton quantity was estimated using ML Chartier Weight Tickets produced from the scale within the bucket of the loader. Therefore, the 100 tons of treated soil transported to Williams County Landfill are included in the 3,300 tons transported to the landfill and are documented with the waste manifests included in Appendix D. Section 4.8 of the Certification Report will be revised to clarify this point by referring to Appendix D and Table 5.

    c. In GeoTrans' October 23, 2002, *September 2002 Soil Sample Results* horizontal delineation of VOCs was presented. The Ohio EPA did not respond or deny the completion of the VOC delineation.

    The Revised Certification Report will contain the HASPs and the following other additional correspondence:

    - September 27, 2003 – "August 2002 Soil Samples"
    - September 25, 2003 – Cover letter of transmittal for Shallow Groundwater Report.

22. The Ohio EPA requests additional information to be presented in Appendix B. The following letters correspond with comment #22 in Attachment A of the Notice of Deficiency:

    a. Vinyl acetate was unintentionally omitted from all of Brighton Analytical laboratory reports. Brighton Analytical will revise all of their lab reports to include analysis for vinyl acetate.

    b. At the time of this response letter, we are working with BEC Laboratory to work out this issue. We will have a response ready to discuss at our September 29 meeting.

    c. At the time of this response letter, we are working with BEC Laboratory to work out this issue. We will have a response ready to discuss at our September 29 meeting.

    d. See response 22a.

    e. The Revised Certification Report will include pages 5 and 6 for SW-46 (4) and pages 1 and 2 for SW-46-6'.

    f. See response 22a.

23. Complete laboratory packages and data validation review will be included in the Revised Certification Report.

24. During remediation efforts, the following duplicate samples were taken to confirm the initial lab results:

    - VR-02-01 (2)
    - VR-03-04 (2)

    The duplicate results for the verification of remediation samples did not change our closure strategy and were not used in the residual risk calculation.

    IS-02-02 (2) was also a duplicate sample. This sample was duplicated, due to failed laboratory QA tests for IS-02-02.

    We propose including an additional table in the Revised Certification Report listing all samples collected at this site and identifying the collection date, purpose of the sample, and noting whether or not the sample remains on site.

25. Initially, samples taken from the treated soil stockpiles (VR samples) were not screened. We began physical screening of samples to obtain a homogeneous sample (e.g. prevent large pieces of soil, which would clump together due to the cold weather, from getting into the sample). The unscreened sample was taken to validate the screening process. This will be noted in the Revised Closure Plan in the table proposed in response #24.

26. Five (5) field blanks, or 10% of the sample population, were taken during remediation activities. The field blank samples were collected by pouring DI water over decontaminated sampling equipment. All field blanks reported ND values for all chemicals of concern. The results of the

field blanks did not change throughout the project, ensuring a reliable decon procedure at this site.

27. The Revised Certification Report will include a topographic map of the former holding pit to meet all the requirements of the Revised Closure Plan Approval Letter (RCPAL).

28. Per the RCPLA the *Shallow Groundwater Report* will be eliminated from Appendix A and included in a separate Appendix in the Revised Certification Report.

29. Section 5 of the Certification Report outlines the pretreatment closure strategy (MCAGCNs), the post treatment closure strategy (GCNs), and the challenging field conditions that required a change in the closure strategy. In summary, the closure strategy was changed for the following reasons:

    - During excavation, demolition debris including roofing materials were identified within the elevated area. Coal tar is commonly associated with roofing materials. Numerous SVOCs, including pyrene, phenanthrene, chrysene, anthracene, and benzo(a)pyrene, are found in coal tar and were identified in the investigation and verification samples.

    - The MTTD unit successfully eliminated VOCs in the treated soil but did not eliminate the SVOCs associated with coal tar. If implemented, the pretreatment strategy would not have met the requirements for unrestricted closure.

    - All of the parameters that are still detected (present) at the site are at least an order of magnitude lower than detections demonstrated during the investigation. Since significant treatment and removal of impact soils has occurred at the site, the site does not present the same risk to the environment as it did prior to treatment.

    Campbell worked with the Ohio EPA to develop an acceptable alternative closure strategy. The alternative closure strategy was referred to as the post treatment closure strategy in the Certification Report. The basis for the post treatment closure strategy was summarized in a letter to the Ohio EPA on January 17, 2003 from GeoTrans. The Ohio EPA did not response or denies the basis for the post treatment closure strategy.

30. A statistical evaluation of all samples used in the closure risk evaluation will be included in the Revised Certification Report. Although not included in the Certification Report, GeoTrans did run an analysis of the distribution of the confirmation samples, and found the samples to be neither normally nor log-normally distributed. We discussed these results with the Ohio EPA, and determined the distribution of the data was due to the large amount of non-detects obtained from the floor and sidewall samples.

31. The Ohio EPA has understood the intent of the first sentence in Section 5.2.3 correctly and we will clarify the intent of this sentence in the Revised Certification Report.

32. The risk calculation will be revised to include all samples collected at this site that were not treated by the MTTD unit or removed during off-site disposal. In addition to the Table proposed in response #24, a table will be added to the Revised Certification Report summarizing all investigation samples used in the risk calculation to close this site.

33. GCN's that are listed in Attachment A of the RCPAL will be used for all parameters listed on Attachment A. If a GCN is not presented in Attachment A, we will use the GCN's presented in Table 1 – "Residual Generic Cleanup Numbers for Ohio Hazardous Waste Closures". If a value is not on either list, GeoTrans will request the value from the Ohio EPA.

34. We are proposing to add two tables to the Revised Certification Report, as presented in response #24 and #32, which will show all samples used in the risk calculation for this site. The UCL values were calculated, and will be re-calculated, with all of the samples used in the risk calculation. A sample UCL calculation will be presented in the Revised Certification Report.

35. Carbazole will be added to the cancer risk calculation using the values presented in Table 1 – "Residual Generic Cleanup Numbers for Ohio Hazardous Waste Closures".

36. As proposed in response #24 and #32, table will be added to the Revised Certification Report summarizing the samples used in the risk calculation for this site.

37. As stated in response #32, the risk calculation will be revised to include all samples collected at this site that were not treated by the MTTD unit or removed during off-site disposal.

    a. Acenaphthene will be left out of the residual risk calculation as GeoTrans can prove that the sampling points where this chemical was found (PB-01-32-8-9', PB-01-34-8-9', and PB-01-41-4-5') were excavated during remediation activities.

    b. Due to the low detection of the parameters listed, they will be eliminated from the residual risk calculation.

    c. The risk calculation will be revised to include all samples collected at this site that were not treated by the MTTD unit or removed during off-site disposal.

We look forward to meeting with you to discuss the above listed issues.

Sincerely,

Michael S. Kovacich
Senior Hydrogeologist

Tesha Humphriss
Project Engineer

copy: Michael Terpinski, Ohio EPA, NWDO
Dr. Aly, Campbell
Mr. Michael Maringer, Campbell

p:/projects/campbell soup/documents/response to notice of deficiencyfinal.doc

Campbells Napoleon, OH Henry, CO.

From: Kara Reynolds
To: thumphriss@geotransinc.com
Date: 9/17/03 4:07PM
Subject: Attachment A

Tesha,

Here is Attachment A from the Revised Closure Plan Approval Letter. FYI-When I tried to print the table, it spilled over onto the second page. Please let me know if you are unable to open it.

Thanks

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

Attachment A

Chemical of Concern Identified at the Site	Direct Contact Soil Standard, Multiple Chemical Adjusted (µg/kg)	Direct Contact Soil Standard, Multiple Chemical Adjusted (mg/kg)	Basis	Non-Cancer GCN	Cancer GCN	SAT	MCA NC	MCA CA
Chloromethane (methyl chloride)	813	0.81	nc	3.66E+01	na	1.09E+03	8.13E-01	na
Bromomethane	84	0.08	nc	3.77E+00	na	3.07E+03	8.38E-02	na
Methylene chloride	5,313	5.31	ca	1.63E+03	8.50E+01	2.28E+03	3.62E+01	5.31E+00
Chloroform	151	0.15	ca	4.16E+01	2.41E+00	2.53E+03	9.24E-01	1.51E-01
Benzene	152	0.15	nc	6.85E+00	6.87E+00	9.58E+02	1.52E-01	4.29E-01
Trichloroethene	498	0.50	nc	2.24E+01	2.70E+01	9.24E+02	4.98E-01	1.69E+00
Toluene	12,756	12.76	nc	5.74E+02	na	8.80E+02	1.28E+01	na
Ethylbenzene	30,444	30.44	nc	1.37E+03	na	2.25E+02	3.04E+01	na
Total xylenes	32,667	32.67	nc	1.47E+03	na	3.16E+02	3.27E+01	na
Styrene	88,667	88.67	nc	3.99E+03	na	6.83E+02	8.87E+01	na
Isopropylbenzene (cumene)	35,333	35.33	nc	1.59E+03	na	8.55E+02	3.53E+01	na
1,2,3-Trichloropropane	40	0.04	ca	3.27E+02	6.33E-01	9.88E+02	7.27E+00	3.96E-02
n-Propylbenzene	12,111	12.11	nc	5.45E+02	na	7.20E+01	1.21E+01	na
1,3,5-Trimethylbenzene	431	0.43	nc	1.94E+01	na	1.99E+02	4.31E-01	na
tert-Butylbenzene	12,111	12.11	nc	5.45E+02	na	3.88E+02	1.21E+01	na
1,2,4-Trimethylbenzene	496	0.50	nc	2.23E+01	na	2.55E+02	4.96E-01	na
sec-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
p-Isopropyltoldene	12,733	12.73	nc	5.73E+02	na	5.73E+02	1.27E+01	na
n-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
1,2,4-Trichlorobenzene	2,333	2.33	nc	1.05E+02	na	3.02E+03	2.33E+00	na
Naphthalene	1,213	1.21	nc	5.46E+01	na	2.43E+02	1.21E+00	na
2-Methylnaphthalene	1,213	1.21	nc	5.46E+01	na	1.13E+04	1.21E+00	na
Methyl-4,-2-Propanone (MIBK)	16,178	16.18	nc	7.28E+02	na	1.72E+04	1.62E+01	na
Butanone 2- (MEK)	146,667	146.67	nc	6.60E+03	na	3.41E+04	1.47E+02	na
Acenaphthene	48,667	48.67	nc	2.19E+03	na	1.08E+02	4.87E+01	na
Fluorene	33,778	33.78	nc	1.52E+03	na	9.03E+01	3.38E+01	na
Phenanthrene	158,000	158.00	sat	1.21E+04	na	1.58E+02	2.69E+02	na
Anthracene	5,670	5.67	sat	1.21E+04	na	5.67E+00	2.69E+02	na
Fluoranthene	36,667	36.67	nc	1.65E+03	na	na	3.67E+01	na
Pyrene	33,333	33.33	nc	1.50E+03	na	9.96E+01	3.33E+01	na
Benzo (a) Anthracene	289	0.29	ca	na	4.63E+00	na	na	2.89E-01
Chrysene	7,180	7.18	sat	na	4.57E+02	7.18E+00	na	2.86E+01
Benzo (b)Fluoranthene	288	0.29	ca	na	4.60E+00	na	na	2.88E-01
Benzo (K) Fluoranthene	2,906	2.91	ca	na	4.65E+01	na	na	2.91E+00
Benzo (a) Pyrene	29	0.03	ca	na	4.65E-01	na	na	2.91E-02
Indeno (1,2,3-cd) Pyrene	291	0.29	ca	na	4.65E+00	na	na	2.91E-01
Benzo (g,h,i) Perylene	150	0.15	sat	1.50E+03	na	1.50E-01	3.33E+01	na
Trichlorofluoromethane	7,956	7.96	nc	3.58E+02	na	3.91E+04	7.96E+00	na
1,1-Dichloroethene	33	0.03	ca	1.97E+01	5.21E-01	1.55E+03	4.38E-01	3.26E-02
trans-1,2-Dichloroethene	1,382	1.38	nc	6.22E+01	na	3.05E+03	1.38E+00	na
1,1-Dichloropropene	qualitative	qualitative		na	na		na	na
1,2-Dichloroethane	238	0.24	nc	1.07E+01	2.82E+01	1.81E+03	2.38E-01	1.76E+00
Chlorobenzene	1,116	1.12	nc	5.02E+01	na	6.95E+02	1.12E+00	na
Bromobenzene	836	0.84	nc	3.76E+01	na	7.53E+02	8.36E-01	na
1,1,2,2-Tetrachloroethane	223	0.22	ca	na	3.56E+00	1.71E+03	na	2.23E-01
2-Chlorotoluene	24,222	24.22	nc	1.09E+03	na	1.42E+03	2.42E+01	na
4-Chlorotoluene	qualitative	qualitative		na	na	3.44E+02	na	na
1,3-Dichlorobenzene	9,089	9.09	nc	4.09E+02	na	2.40E+02	9.09E+00	na
1,4-Dichlorobenzene	1,900	1.90	ca	3.37E+03	3.04E+01	na	7.49E+01	1.90E+00
1,2-Dichlorobenzene	19,178	19.18	nc	8.63E+02	na	3.73E+02	1.92E+01	na
1,2-Dibromo-3-chloropropane	69	0.07	nc	3.11E+00	na	2.07E+03	6.91E-02	na
Hexachlorobutadiene	242	0.24	nc	1.09E+01	5.68E+01	1.18E+05	2.42E-01	3.55E+00
1,2,3-Trichlorobenzene	182	0.18	nc	8.18E+00	na	1.24E+03	1.82E-01	na
Acetone	32,000	32.00	nc	1.44E+03	na	1.04E+05	3.20E+01	na

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

September 16, 2003

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Certification Period
Campbell Soup Supply Company, Napoleon
Former Holding Pit Unit
OHD 005 419 171

Dear Dr. Aly:

On September 12, 2003, Campbell Soup Company (CSC), located at 1273 State Route 110, Napoleon, Ohio, submitted a request, via e-mail, for an extension to the certification revision period specified in the Notice of Deficiency (NOD) dated September 4, 2003. CSC has requested this extension because they would like to meet with the Ohio Environmental Protection Agency (Ohio EPA) to discuss the comments in the NOD before submitting a revised certification report. As stated in the e-mail from Michael Kovacich, CSC "received the Notice of Deficiency on September 8, 2003. The notice states that per OAC rule 3745-66-12, the revised certification report must be submitted to the Director for approval within thirty days of receipt of the letter. Therefore, the revised certification report is due to the Director on October 8, 2003. The earliest available date [to meet with Ohio EPA] September 29, 2003 only allows a maximum of 10 business days to revise and submit the certification report." CSC goes on to request an extension due to the period between the receipt of the NOD and the proposed meeting date.

I have reviewed your request for an extension to the certification revision period, and am granting this extension request. This extension is being granted for the above referenced certification report and expires thirty (30) days after the meeting between CSC and Ohio EPA.

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The revised certification shall follow the format specified in the NOD, and should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Regulatory and Information Services Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to my attention at Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio, 43402.

Sincerely,

Kara Reynolds

Kara Reynolds
Division of Hazardous Waste Management

/csl

cc: Pamela Allen, DHWM Central File, Ohio EPA
Ed Lim, Manager, ERAS, CO, Ohio EPA
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Kara Reynolds, Ohio EPA, NWDO
DHWM File
Michael Maringer, Campbell Soup Company, Napoleon
Michael Kovacich, Geo Trans, Inc., Ann Arbor
Tesha Yielding, Geo Trans, Inc., Ann Arbor

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 9/16/03 2:05PM
Subject: Start time for our September 29, 2003 Meeting

Kara,

Dr. Aly has made his final travel arrangements. He will be in Detroit at 9:30 AM on Monday and will depart from Detroit at 5:30 PM that same day. We will have to leave Bowling Green by 3:00 PM. Would it be possible to move the start time of our meeting from 1:30 PM to 12:00 PM?

Please let me know,

Thank you,

Michael Kovacich, CPG
Senior Hydrogeologist
GeoTrans, Inc.
phone: 734.213.5024
fax:734.213.5008

CC: <Michael.Terpinski@epa.state.oh.us>

From: Kara Reynolds
To: mkovacich@geotransinc.com
Date: 9/15/03 10:11AM
Subject: Revised Certification

Michael,

I received your e-mail concerning the time period in which Campbell Soup Company (CSC) must submit a revised certification. You should receive an official letter from Ohio EPA within the next week or so that explains everything in detail. CSC will have 30 days after the meeting on September 29, 2003 to submit the revised certification to the people specified in the letter.

Please call me if you have any questions or concerns on this issue.

Thank you,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: Terpinski, Michael

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

September 4, 2003

CERTIFIED MAIL

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Former Holding Pit -Notice of Deficiency (NOD)
RCRA Site Closure Certification Report
Campbell Soup Supply Company, Napoleon
OHD 005 419 171

Dear Dr. Aly:

On July 7, 2003, Ohio EPA received from Campbell Soup Company a closure certification report for the former holding pit unit located at 1273 State Route 110, Napoleon, Ohio. Ohio EPA received subsequent submittals from Campbell's on August 6, 2003 and August 12, 2003. The document is titled *RCRA Site Closure Certification Report, Former Holding Pit Unit.*

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a review of the above referenced certification report, and has determined it to be incomplete and technically inadequate.

We have enclosed, as an attachment to this correspondence, detailed deficiency comments on the certification report. Please provide a revised certification report addressing all areas indicated in the deficiency comments. Ohio Administrative Code (OAC) rule 3745-66-12 requires that such a revised certification report be submitted to the Director of Ohio EPA for approval within thirty (30) days of the receipt of this letter.

The revised certification report shall be prepared in accordance with the following editorial protocol or convention:

1) Old Language is over-struck, but not obliterated.

2) New Language is capitalized.

3) Page headers should indicate date of submission.

4) If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

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The revised certification report should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Manager, Regulatory and Information Services Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to: Kara Reynolds, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio, 43402.

If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Kara Reynolds, at (419)-373-3065.

Ohio EPA, DHWM, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and as a result eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Colleen Weaver at (419)-373-3059.

Sincerely,

Michael R. Terpinski
Supervisor
Division of Hazardous Waste Management

/csl

Enclosures: Table 1-Residential Generic Cleanup Numbers (GCNs) for Ohio Hazardous Waste Closures
Appendix II, Tier I Checklist
Attachment A

cc: Pamela Allen, DHWM, Central File, Ohio EPA
Harriet Croke, U.S. EPA, Region 5
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Kara Reynolds, Ohio EPA, NWDO
DHWM, NWDO File 7001 2510 0000 7069 2727
Michael Maringer, Campbell Soup Company, Napoleon
Michael Kovacich, GeoTrans, Inc., Ann Arbor
Tesha Yielding, GeoTrans, Inc., Ann Arbor

From: Michael Terpinski
To: Kara Reynolds
Date: 9/12/03 7:38AM
Subject: Fwd: Re: Certification

let's give them 30 days after the mtg.

>>> Kara Reynolds 09/12/03 07:35AM >>>
So they have basically asked for an extension, and you said that it would be ok. So is there paper work they need to do, or should I just tell them that they have 30 days starting the day that we meet to go over their responses/our comments to get the revised Certification in?

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

DR OSMAN M ALY ENV CO
CAMPBELL SOUP CO
1 CAMPBELL PLACE
CAMDEN NJ 08103-1799

DHWM/Kara/Terpinski/csl

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Juan Torres ☐ Agent ☐ Addressee

B. Received by (*Printed Name*) Juan Torres C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. Article Number (*Transfer from service label*) 7001 2510 0000 7069 2727

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-0835

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 9/11/03 5:02PM
Subject: Re: Certification

Kara,

Any of these days will work for GeoTrans. I will forward the dates to Dr. Aly and get back with you regarding a date and time that will work for Campbell.

We received the Notice of Deficiency on September 8, 2003. The notice states that per OAC rule 3745-66-12, the revised certification report must be submitted to the Director for approval within thirty days of receipt of the letter. Therefore, the revised certification report is due to the Director on October 8, 2003. The earliest available date September 29, 2003 only allows a maximum of 10 business days to revise and submit the certification report. Is a request for an extension possible?

We can determine whether Mylynda should attend the meeting following your review of our response letter. We plan to submit our response letter to you via-email by September 22, 2003.

Sincerely,

Michael Kovacich
Senior Hydrogeologist
GeoTrans, Inc.
(734) 213-5024

>>> "Kara Reynolds" <Kara.Reynolds@epa.state.oh.us> 09/11/03 02:27PM >>>
Hello Michael,

I left a voice mail but thought I would e-mail you also. Michael Terpinski will be out for a while. The best days to meet would be September 29, September 30, October 3 (early like 8:00 AM) October 6, or October 8.

As far as Mylynda Shaskus is concerned, I have not been able to reach her yet. I did, however, want to clear up a few things. I will be reviewing the risk assessment. So if there are general questions about the risk, I will be the one to answer them. If you were looking for Mylynda and your toxicologist to be able to talk and for Mylynda to be able to say "Yes, I do remember saying ...that was ok to do", then I will try my best to set up a time that Mylynda and everyone can make.

I guess I need a little clarifying before I take Mylynda away from her new position.

That's all. Thank You,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: <osman_aly@campbellsoup.com>, <o.aly@worldnet.att.net>

APPENDIX II

TIER I CHECKLIST

Data Validation Plan Review Form
Tier I

This Plan Review Form is #		of		forms completed in the review of this closure plan.

Facility Name		Validator/DO	
ID Number		Date of Plan	
Date Review of Plan Completed		Plan is: New, Amended, Revised	
Document Title:			
Lab Name:	Media Type(s):	Analyses Requested:	Notes:

Note: The criteria used in the Tier I Data Validation checklist are derived mostly from SW-846 methods and U.S. EPA's National Functional Guidelines (NFGs). Criteria from methods are considered preferable as they are specific to that procedure. Where the method is silent, criteria from the NFGs, or other sources when necessary, are adopted. For flashpoint (which uses ASTM methods dictated by the OAC rules), ASTM method criteria are used.

The Tier I data validation manual is the primary reference for this checklist. It explains and gives examples for the questions in this checklist. The Tier II methodology and terminology builds on that established in the Tier I checklist and its associated data validation manual. There is no Tier II manual, only the checklist and completed example checklists. Additional information is also available by referring to the specific methods.

Data Qualifiers and their meanings used throughout the Tier I Checklist	
J	Estimated
J+	Estimated High (results are likely reported higher than the true value)
J-	Estimated Low (results are likely reported lower than the true value)
R	Rejected
UJ	Undetected Estimated
NJ	Tentatively Identified, Quantitation Estimated

Section 1.0
Report Completeness and Technical Holding Times

1.1	Sample Package Completeness and Deliverables	
Completeness **This section provides a checklist of important components of data reports. If the report is incomplete, it may be necessary to halt data validation procedures until all the missing information is provided. Please, refer to the Tier I data validation manual for additional assistance in completing the checklist.**		
1.1.1	Describe any discrepancies between the Chain Of Custody (COC) record and submitted sampling data. *Action: If there are discrepancies, contact the laboratory for any missing deliverables and/or an explanation.*	
1.1.2	Is a signed statement from the laboratory present that attests to the validity of the data? *Action: Take no further action and contact the facility and have the lab submit a valid data report. If no response, qualify all data as unuseable.*	
1.1.3	Is a case narrative present that summarizes QA/QC discrepancies and/or other problems? *Action: No action is necessary, but this information is useful to focus data validation efforts.*	
1.1.4	Are COC forms present for all samples? *Action: If not contact the facility for replacement of missing or illegible copies*	
1.1.5	Do the COC forms, Sample Receipt form, or the Case Narrative indicate any problems with the sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data? *Action: Use the information to focus data validation efforts.*	
1.1.6	Are Custody Seals present and intact?	

1.1 Sample Package Completeness and Deliverables		
1.7	Is a sample receipt form present? If so, does it contain information on condition of sample containers, proper preservatives used (cross-check with COC) and temperature of the cooler? Note any comments or abnormal conditions. Action may be taken for the following special conditions: A. For samples analyzed for volatiles that were not properly cooled (temperature more than 10°C), all positive results should be qualified as "J" and all non-detects qualified as "UJ." B. For all Volatile Organic Compound (VOC) samples or vials with air bubbles (>2 mm), positive results should be qualified as "J" and non-detects as "UJ" or "R" depending on professional judgment (regarding other quality control information such as sample cooler receipt temperature and other site-specific data quality objectives). C. If aqueous samples for VOCs were not preserved, check that technical holding times were met (see Technical Holding Times, Table 1). If not, qualify all associated sample results. D. If liquid TCLP samples were preserved, qualify all associated results as "R."	

Sample ID	Lab ID	Matrix	Sample Date	Date Received by the Lab	Parameter	Extraction Date	Preparation Date	Analysis Date	QA/QC Data Present[A]	Batch ID#

A: Batch specific QA/QC requirements for Tier I data validation for Organic Data consists of Blank Data Matrix Spike/Matrix Spike Duplicate data, and surrogate data. For Inorganic Data the QA/QC data includes a Matrix Spike and it's duplicate and blank data. Additional QA/QC data may include ICP serial dilution results and post-digestion spike data.

Note: To fill out this table, list one sample ID# then list all sample parameters on one line each with their associated analysis dates, batch ID#s, etc.(*e.g.,* put mercury on a separate line from the other metals since it will have its own prep. dates, analysis dates, and batch ID#s).

1.2 Technical Holding Times

Table 1

Technical Holding Times for Volatile, Semi-Volatile, Metals and pH Samples

Technical holding time is the time, in days, from sample acquisition in the field to either laboratory preparation or analysis. Technical holding times are established from information contained in the laboratory report, chain of custody, and raw analytical bench sheets (if available). Technical holding times also depend upon whether samples were preserved. The recommended technical holding times for volatile compounds, semi-volatile compounds, metals, and TCLP analyses are listed below.

	Preserved	From field collection to extraction	from extraction to preparation	From extraction to analysis	Max Holding Times	Common preservative
VOCs (8260) (aqueous)	Yes	NA	NA	14 days	14 days	Cool to 4° C, HCl
VOCs (8260) (aqueous)	No	NA	NA	7 days	7 days	Cool to 4° C
VOCs (8260) (liquid waste)	No	NA	NA	14 days	14 days	Cool to 4° C
VOCs (8260) (solid/soil/waste)	No	NA	NA	NA	14 days	Cool to 4° C or no preservative
VOCs (EnCore) (5035/8260) (solid/soil/waste)	Yes	2 days	NA	12 days	14 days	Encore Sampler
SVOC(8270)	Yes	7 days	NA	40 days	47 days	Cool to 4° C
Total Metals (6010B/7000)	Yes	NA	NA	180 days	180 days	Nitric Acid (pH<2- aqueous); cool to 4° C - solid samples
Mercury (7470A)	Yes	NA	NA	28 days	28 days	Nitric Acid (pH<2- aqueous); cool to 4° C - solid samples
TCLP VOCs (1311/8260)	No	14 days	NA	14 days	28 days	no preservative
TCLP SVOCs (1311/8270)	No	14 days	7 days	40 days	61 days	no preservative
TCLP Metals (except mercury) (1311/6010B)	No	180 days	NA	180 days	360 days	no preservative

	Preserved	From field collection to extraction	from extraction to preparation	From extraction to analysis	Max Holding Times	Common preservative
TCLP mercury (1311/7470A)	No	28 days	NA	28 days	56 days	no preservative
pH (9040B)	No	24 hours	NA	NA	1 day	no preservative

1.2 Technical Holding Times

Technical Holding Times

Technical holding times are an important component of assuring that data is valid and not biased from inappropriate handling procedures. Technical holding times are judged by assessing the lapsed time from field sampling to extraction and to analyses. There are specific technical holding time requirements for specific classes of compounds. In addition, holding times may vary due to the presence or absence of preservatives. The validator should refer to specific criteria for holding times listed in Table 1 and in the Tier I Data Validation Manual. Use information on sampling, extraction and analysis dates (examined in section 1.0) to determine whether technical holding times are in compliance with criteria listed in Table 1. Complete the following table to determine if any violations of technical holding time exist, and qualify all associated sampling data.

1.2 Technical Holding Times - Volatile Organic Compounds

1.2.1	Are samples properly preserved? Check preservation requirements, chain of custody, and sample receipt form for discrepancies. *Action: Note improprieties and use the information to qualify results.*	List impropriety(-ies):
1.2.2	If samples were improperly preserved, or unpreserved, and the technical holding times were exceeded, qualify all positive results for affected samples as "J" and all non-detected results as "UJ."	List sample ID(s):
1.2.3	If samples were properly preserved, but technical holding times were exceeded, qualify all positive results for affected samples as "J" and all non-detected results as "UJ."	List sample ID(s):
1.2.4	If technical holding times are greatly exceeded (> 2x the time requirement) upon analysis or re-analysis then the validator may use professional judgement to qualify all non-detected compounds as "R" and all positive results as "J."	List sample ID(s):

1.2 Technical Holding Times - Semi-Volatile Organic Compounds		
1.2.5	If technical holding times are exceeded (Table 1), qualify all positive results for affected samples as "J" and all non-detected results as "UJ."	List sample ID(s):
1.2.6	If technical holding times are greatly exceeded (> 2x the time requirement), the validator may use professional judgement to qualify all non-detected compounds as "R" and all positive results as "J."	List sample ID(s):

1.2 Technical Holding Times - Inorganic Compounds		
1.2.7	Are samples properly preserved (4°C for solids; acid preservation for aqueous samples)? Check preservation requirements, chain of custody, and sample receipt form for discrepancies. *Action: Note any impropriety, and use the information to qualify results.*	List impropriety(-ies):
1.2.8	If samples were improperly preserved and the technical holding times were exceeded (Table 1), qualify all positive results for affected samples as "J" and all non-detected results as "UJ."	List sample ID(s):
1.2.9	If samples were properly preserved, but technical holding times exceeded, qualify all positive results for affected samples as "J" and all non-detected results as "UJ."	List sample ID(s):
1.2.10	If technical holding times are greatly exceeded (> 2x the time requirement), the validator may use professional judgement to qualify all non-detected compounds as "R" and all positive results as "J."	List sample ID(s):

1.2 Technical Holding Times - pH		
1.2.11	If technical holding times are exceeded the validator may use professional judgement to qualify data as "R" or "J."	List sample ID(s):

Section 2.0
VOC Data Validation

2.0 VOC Analysis Data Validation	
2.1 Blank Data Summary Review - Volatile Organic Compounds	
Blank Data **Laboratory blanks are used to assess whether contamination from the laboratory, reagents, or other samples exists and whether this contamination can bias sample results. The qualification of sample results will depend upon the magnitude of blank contamination.**	
2.1.1 Is the method blank summary data present for each batch (method and matrix), including TCLP? *Action: If not present, request information from the facility. If the required method blanks were not analyzed, sample results may be qualified as "J," for positive results and "UJ," for non-detected compounds. Qualification should take into account other QA/QC information.*	
2.1.2 Is there an indication that the samples associated with that blank were diluted? **Note: The dilution factor can be found in the data report (a dilution factor of 1 indicates no dilution).**	List the dilution factor(s):
2.1.3 Do any field/trip/rinsate blanks have any positive results for any volatile target analyte? **Note: A list of samples associated with each of the contaminated blanks should be prepared. Field blank results should be used to qualify data. Trip blanks are used to qualify samples based on potential contamination during shipment, and are not required for non-aqueous matrices.** *Action: Follow the directions in the table below to qualify sample results due to contamination. Use the largest value from all of the associated blanks. If any blanks are grossly contaminated, all data associated should be qualified as "R."*	
2.1.4 Do any method blanks for VOCs have positive results for any volatile target analytes? Follow the directions in the table below. **Note: When applied, the contaminant concentration in these blanks are multiplied by the same dilution factor and corrected for % moisture if necessary.**	

For Common Volatile Contaminants: methylene chloride, acetone, 2-butanone	**For Other Contaminants:**	**Action:**
Sample Conc. > Detection Limit but < 10x Blank Result	Sample Conc. > Detection Limit but < 5x Blank Result	Identify the sample result "U" undetected

For Common Volatile Contaminants: methylene chloride, acetone, 2-butanone	For Other Contaminants:	Action:
Sample Conc. < Detection Limit & < 10x Blank Result	Sample Conc. < Detection Limit & < 5x Blank Result	Report the detection limit and qualify result "UJ" estimated undetected
Sample Conc. > Detection Limit & > 10x Blank Result	Sample Conc. > Detection Limit & > 5x Blank Result	No qualification is necessary

2.2 Volatile Organic Data Review - Laboratory Control Sample (LCS)	
Laboratory Control Sample **An LCS should be included with each batch of samples (approximately 20). The LCS consists of an aliquot of a clean (control) matrix similar to the matrix type of the sample and at the same weight or volume. The LCS is spiked with the same analytes at the same concentration as the matrix spike. When the results of the matrix spike indicate a potential problem due to the sample matrix itself, the LCS verifies that the laboratory can perform analyses in a clean matrix (Method 8260B).**	
2.2.1 Was an LCS prepared, extracted, analyzed and reported once per group of 20 samples? **Note: This information should be included in the QA package provided by the lab. If not, contact the laboratory and request that the information be submitted to the agency. This information should be found in the injection log.** *Action: If LCS information cannot be found, consult the facility for re-submittal of the data package. If LCS information is not present, qualify all positive results as "J." If warranted, the Data Validator may reject all results as unacceptable.*	
2.2.2 Does the LCS contain the following volatile target compounds in addition to the required surrogates: 1,1-Dichloroethene Trichloroethene Chlorobenzene Toluene Benzene **Note: Method 8260B calls for the LCS to be spiked at the same level as the matrix spike. When the results of the matrix spike indicate a problem due to sample matrix, the LCS should be checked to determine whether the laboratory can perform the analysis on a clean matrix.**	

2.2 Volatile Organic Data Review - Laboratory Control Sample (LCS)	
2.2.3 Do the percent recoveries (%R) meet the QC limits provided by the lab? *Action: If the LCS recovery is greater than the upper acceptance limit, then positive sample results for the affected compound(s) should be qualified as "J."* *If the mass spectral criteria are met, but the LCS recovery is less than the lower acceptance limit, then the associated detected target compounds should be qualified as "J," and the associated non-detected target compounds should be qualified as "R."* *If more than half of the compounds in the LCS are not within the recovery criteria, then all of the associated detected target compounds should be qualified as "J," and all associated non-detected compounds should be qualified as "R."*	List compounds and sample IDs that do not meet QC limits:
2.2.4 Verify the calculations for at least one %R. *%R = found/true X100* *Action: If the %R is not calculated correctly, verify the other %R calculations and/or contact the lab for re-submittal. If the re-calculated %R values fall within the QC limits, the validator should use professional judgement to determine if the lab should be contacted for re-submittal or if the data should be flagged.*	

2.3 Quality Assurance Summary Review - Matrix Spike/Matrix Spike Duplicates, VOC	
Matrix Spike/Matrix Spike Duplicates **Matrix spike and matrix spike duplicates are performed to assess method precision for VOC and SVOC analyses. Matrix spikes and duplicates are required for every batch of samples (every 20 - 30 samples). The validator should be aware that the MS/MSD are batch specific, not sample specific. For example, the MS/MSD information may be any sample in the batch, but not necessarily a sample being validated. Because of this, matrix spike and matrix spike duplicate data alone usually aren't used to qualify results, but the information is used with other QA/QC data to qualify data.**	
2.3.1 Is matrix spike/matrix spike duplicate recovery data present? *Action: If any matrix spike data is missing, the laboratory should be contacted for a re-submittal.*	
2.3.2 How many VOC spike recoveries are outside the QC limits?	Record the spike recovery and control limits:
2.3.3 How many RPDs for matrix spike and matrix spike duplicate recoveries are outside the QC limits for VOCs? **Note: The MS/MSD results may be used in conjunction with other QC criteria to determine the need for data qualification. Outliers should be identified.**	Record the recovery data out of criteria and control limits. Review surrogate and LCS data to determine if qualifiers are necessary:

2.4 VOC Surrogate Recovery

VOC Surrogate Compound Recovery

Surrogate compounds are spiked compounds of known composition that are added to samples and blanks. The recovery of surrogate compounds allows an assessment of matrix interference. VOC surrogate recoveries are used with other QA/QC data to qualify sample results and to justify laboratory re-analysis. Specific examples are listed in the data validation guidance document.

Surrogate Compound	Water *	Soil/Sediment *
4-Bromofluorobenzene	86-115	74-121
Dibromofluoromethane	86-118	80-120
Toluene-d_8	88-110	81-117
1,2-Dichloroethane-d_4	80-120	80-120

Other Common VOC Surrogates
1,2-Dichlorobenzene-d_4
Pentafluorobenzene
Fluorobenzene

*** SW-846 Method 8260B, Table 8. Acceptance criteria is guidance.**

2.4.1 Are the surrogate recovery data present for each batch (method and matrix), including TCLP? **Note: Samples may be included in separate sample batches and separate surrogate recoveries should be provided.** *Action: If no, contact the laboratory for explanation and re-submittals.*	
2.4.2 Were any outliers marked correctly (based upon the laboratory's criteria)? *Action: Mark, circle or highlight the suspected outliers.*	List the sample ID(s), matrix(-ces) and parameter(s):
2.4.3 If any surrogate compound was out of compliance was re-analysis performed to confirm a matrix interference? **Note: Check the report narrative for an indication of re-analysis. Additionally, qualification may not be appropriate for TCLP data. Best professional judgement may be used to qualify data.** *Action: If a surrogate is above the upper control limit, all positive results should be qualified as "J." Results listed as non-detected should not be qualified.* *If any surrogate recovery is less than the lower criteria, but greater than or equal to 10% recovery, all detected compounds should be qualified as "J" and all non-detected compounds as "UJ."* *If any surrogate recovery is less than 10%, all detected compounds should be qualified as "J" and all non-detected compounds as "R."*	List sample ID(s) for surrogate compounds out of compliance and criteria:

3.0 SVOC Analysis Data Validation	
3.1 Blank Data Summary Review - Semi-Volatile Compounds	
Blank Data **Laboratory blanks are used to assess whether contamination from the laboratory, reagents, or other samples exists and whether this contamination can bias sample results. The qualification of sample results will depend upon the magnitude of blank contamination.**	
3.1.1 Is the method blank summary data present for each batch (method and matrix), including TCLP? *Action: If not present, request information from the facility. If information exists that the required method blanks were not analyzed, then sample results may be qualified as "J," for positive results and "UJ" for non-detected compounds. Qualification should take into account other QA/QC information.*	
3.1.2 Is there an indication that samples, associated with that blank, were diluted? **Note: The dilution factor can be found in the data report (a dilution factor of 1 indicates no dilution).**	List the dilution factor(s):
3.1.3 Do any field/rinsate blanks have any positive results for any semi-volatile target analyte? **Note: A list of samples associated with each of the contaminated blanks should be prepared. Field blank results should be used to qualify data. Trip blanks are used to qualify only samples based on shipment and are not required for non-aqueous matrices.** *Action: Follow the directions in the table below to qualify sample results due to contamination. Use the largest value from all of the associated blanks. If any blanks are grossly contaminated, all data associated should be qualified as "R."*	
3.1.4 Do any method blanks for SVOCs have positive results for any semi-volatile target analytes? Follow the directions in the table below. **Note: When applied, the contaminant concentration in these blanks are multiplied by the same dilution factor and corrected for % moisture if necessary.**	

For Common Semi-Volatile Contaminants: Phthalate esters	**For Other Contaminants:**	**Action:**
Sample Conc. > Detection Limit but < 10x Blank Result	Sample Conc. > Detection Limit but < 5x Blank Result	Identify the sample result "U" undetected
Sample Conc. < Detection Limit & < 10x Blank Result	Sample Conc. < Detection Limit & < 5x Blank Result	Report the detection limit and qualify result "UJ" estimated undetected

For Common Semi-Volatile Contaminants: Phthalate esters	For Other Contaminants:	Action:
Sample Conc. > Detection Limit & > 10x Blank Result	Sample Conc. > Detection Limit & > 5x Blank Result	No qualification is necessary

3.2 Semi-Volatile Data Review - Laboratory Control Sample (LCS)	
Laboratory Control Sample **An LCS should be included with each batch of samples (approx. 20). The LCS consists of an aliquot of a clean (control) matrix similar to the matrix type of the sample and at the same weight or volume. The LCS is spiked with the same analytes at the same concentration as the matrix spike. When the results of the matrix spike indicate a potential problem due to the sample matrix itself, the LCS verifies that the laboratory can perform analyses in a clean matrix (Method 8270C).**	
3.2.1 Was an LCS prepared, extracted, analyzed and reported once per group of 20 samples (per batch)? **Note: This information should be included in the QA/QC package provided by the lab. If not, contact the laboratory and request that the information be submitted to the agency.** *Action: If LCS information is not present, consult the facility for re-submission of the data package. If LCS information is not available, qualify all positive results as "J." If warranted, the Data Validator may reject all results.*	
3.2.2 Does the LCS contain the following semi-volatile target compounds in addition to the required surrogates? Base/Neutrals 1,2,4-Trichlorobenzene Acenaphthene 2,4-Dinitrotoluene Pyrene N-Nitroso-di-n-propylamine 1,4-Dichlorobenzene Acids Pentachlorophenol Phenol 2-Chlorophenol 4-Chloro-3-methylphenol 4-Nitrophenol **Note: Method 8270C calls for base/neutral compounds to be spiked at 100 µg/L and acid compounds to be spiked at 200 µg/L. However, for waste samples the concentration should be 5 times higher.**	

3.2 Semi-Volatile Data Review - Laboratory Control Sample (LCS)	
3.2.3 Do the percent recoveries (%R) meet the QC limits provided by the lab? *Action: If the LCS recovery is greater than the upper acceptance limit, then positive sample results for the affected compound(s) should be qualified as "J."* *If the mass spectral criteria are met, but the LCS recovery is less than the lower acceptance limit, then the associated detected target compounds should be qualified as "J," and the associated non-detected target compounds should be qualified as "R."* *If more than half of the compounds in the LCS are not within the recovery criteria, then all of the associated detected target compounds should be qualified as "J," and all associated non-detected compounds should be qualified "R."*	**List compounds and sample IDs that do not meet QC limits:**
3.2.4 Verify the calculations for at least one %R. *%R = found/true X100* *Action: If the %R is not calculated correctly, verify the other %R calculations and/or contact the lab for re-submission. If the recalculated %R values fall within the QC limits, the Data Validator should use professional judgement to determine if the lab should be contacted for re-submission or the data should be flagged.*	

3.3 Quality Assurance Summary Review - Matrix Spike/Matrix Spike Duplicates, SVOC
Matrix Spike/Matrix Spike Duplicates **Matrix spike and matrix spike duplicates are performed to assess method precision for VOC and SVOC analyses. Matrix spikes and duplicates are required for every batch of samples (every 20 - 30 samples). The validator should be aware that the MS/MSD are batch specific, not sample specific. For example, the MS/MSD information may be any sample in the batch, but not necessarily a sample being validated. Because of this, matrix spike and matrix spike duplicate data alone usually aren't used to qualify results, but the information is used with other QA/QC data to qualify data.**

3.4 SVOC Surrogate Recovery	
SVOC Surrogate Compound Recovery **Surrogate compounds are spiked compounds of known composition that are added to samples and blanks. The recovery of surrogate compounds allows an assessment of matrix interference. SVOC analyses include compounds that can be divided into two classes: acid compounds and base/neutral compounds. Each class has a specific assigned set of surrogate compounds. The list of compounds can be found in the data validation guidance manual or SW-846, Method 8270. Data validation is also based upon the type of compound being analyzed. SVOC surrogate recoveries also are used to justify re-analysis to confirm matrix interference, but the number of surrogate compounds out of compliance will justify qualification. Specific examples are listed in the data validation guidance document.** **Surrogate Compound** — **Fraction** **phenol-d_6** — **Acid** **2-fluorophenol** — **Acid** **2,4,6-tribromophenol** — **Acid** **nitrobenzene-d_5** — **Base/Neutral** **2-fluorobiphenyl** — **Base/Neutral** **p-terphenyl-d_{14}** — **Base/Neutral**	
3.4.1 Are the surrogate recovery data present for each batch (method and matrix), including TCLP? **Note: Samples may be included in separate sample batches and separate surrogate recoveries should be provided.** *Action: If no, contact the laboratory for explanation and re-submittals.*	
3.4.2 Were any outliers marked correctly? *Action: Mark, circle or highlight the suspected outliers.*	List the sample ID(s), matrix(-ces) and parameter(s):
3.4.3 If any TWO surrogate compounds in either the acid or base/neutral classes were out of compliance, was re-analysis performed to confirm a matrix interference? **Note: Check the report narrative for an indication of re-analysis.** *Action: If no information is present, request information from the facility.*	List sample ID(s) for surrogate compounds out of compliance and criteria:
3.4.4 If any ONE surrogate compound has a recovery of less than 10% in either the acid or base/neutral classes, check for indications that re-analysis was performed to confirm a matrix interference? **Note: Check the report narrative for an indication of re-analysis.**	List sample ID(s) for surrogate compounds out of compliance and criteria:

4.0 Metals Analysis Data Validation	
4.1 Blank Data Summary Review - Metals Data	
Blank Data **Laboratory blanks are used to assess whether contamination from the laboratory, reagents, or other samples exists and whether this contamination can bias sample results. The qualification of sample results will depend upon the magnitude of blank contamination.**	
4.1.1 Is the method/prep blank summary data present for each batch (method and matrix), including TCLP? *Action: If not present, request information from the facility. If the required method blanks were not analyzed, sample results may be qualified as "J" for positive results and "UJ" for non-detected compounds. Qualification should take into account other QA/QC information.*	
4.1.2 If metals are detected in the blank, record the IDs of the affected samples and those metals detected above the detection limit in the blank and all positive results from the samples. Attach this summary page to this checklist. *Action: Positive sample results that are greater than the detection limit but less than 5 X the blank results should be qualified as "UJ." If the blank is severely contaminated, the corresponding positive sampling results may be qualified as "R."*	
Blanks- Mercury	
4.1.3 Was a Method blank included per batch and were the results below the reporting limit or the CRDL (for CLP labs)?	
4.1.4 Did any Method Blanks contain concentrations of mercury above reportable levels? Were these flagged? **Note: If mercury is discovered in the method blank above the reporting limit, the lowest concentration of any sample in that batch must be 10 times the method blank concentration. If this is not the case, all samples in that batch should have been re-digested and re-analyzed.** *Action: Review the blank data. If the sample results are positive but less than 5 times the concentration in the blank, the results should be qualified as "U".* *If the sample results are positive and greater than 5 times the blank concentration, but less than 10 times the blank concentration, the results should be qualified as "J".*	

4.2 Metal Spike Recovery	
Metal Spike Recovery **Spikes are elements of known composition that are added to blanks and to samples that measure accuracy and precision of the analyses. At least one spike (termed a matrix spike or prep spike) should be included for each batch of samples. Spike recovery criteria listed in this section are determined from U.S. EPA's National Functional Guidelines for Inorganic Data Review. The criteria applied by an individual laboratory may vary. The laboratory should be consulted and it's QA/QC criteria supplied to the validator.**	
4.2.1 Confirm that at least one pre-digestion spiked sample was analyzed per batch, matrix type and concentration or sample delivery group? *Action: If not present, contact the facility for re-submittal.*	
4.2.2 Are all spike recoveries (except Hg and Ag) within control limits (e.g., 75% to 125%)? **Note: When the spike sample result is less than the instrument detection limit, the percent recovery calculation should use a value of zero (not the detection limit) for the sample result.** *Action: Is the sample concentration ≥ 4 times the spiked concentration? If yes, disregard spike recoveries for analytes whose concentrations in samples are > 4 times the spike added. If no, circle those analytes whose concentration is < 4 times the spike added.*	List those elements out of control:
4.2.3 Based on the results of 4.2.2, if the sample results were <4x the spike amount and spike recoveries were out of criteria, a post-digestion spike should be analyzed. **Note: Post-digestion spikes are not required for Ag or Hg, however, one typically is run if the LCS was out of control. The post digestion spike confirms a matrix interference and should not be used for qualification** *Action: Contact the facility/laboratory for an explanation if a post-digestion spike was not analyzed. If none are available, use professional judgement to qualify sample results.*	
4.2.4 Were concentrations in the digestate reported in ug/L for aqueous samples and mg/kg on the basis of dry weight for soil samples?	

4.2 **Metal Spike Recovery**	
4.2.5 Are any **aqueous** spike recoveries (pre and post digestion): 1. Less than 30%? 2. Between 30% and 74%? 3. Between 126% and 150%? 4. Greater than 150%? **Note: The TCLP extract should be handled as an aqueous sample.** *Action: If < 30%, and the sample results are below the detection limit, all data should be qualified as "R."* *If between 30% and 74%, qualify all positive data as "J" and non-detected data as "UJ."* *If between 126% and 150%, qualify positive as "J." All undetected compounds are acceptable.* *If > 150% note for possible positive bias. Evaluator may qualify data "R" based on professional judgement and the eventual end use of the data.*	
4.2.6 Are any **soil/solid/waste** spike recoveries (pre and post digestion): 1. Less than 10%? 2. Between 10% and 74%? 3. Between 126% and 200%? 4. Greater than 200%? *Action: If < 10%, those elements out of control limits should be qualified as "R."* *If between 10% and 74%, qualify those elements out of control limits as "J."* *If between 126% and 200%, qualify positive data, for those elements out of control limits, as "J."* *If > 200%, qualify all positive data, for those elements out of control limits, as "R."*	
4.2.7 If the pre-digestion spike was outside the QC limits for **Atomic Adsorption furnace analysis** (e.g., SW-846 methods in the 7000 series), was a post-digestion spike performed? *Action: Samples should not be qualified based on post-digestion spike results. The results are used to confirm a matrix interference. If a post-digestion spike was not prepared, the data validator may reject the data.*	
4.2.8 Based on the results from 4.2.7, were the post-digestion spike recoveries within the quality control range (75% to 125%)? *Action: If > 125%, qualify all positive data as "J." If < 75%, qualify both positive and non-detect data as "J."*	

4.3 Quality Assurance Data Review - Inorganic Analysis - AA Analysis	
Graphite Furnace Atomic Adsorption QC Atomic Adsorption analyses require specialized QA/QC procedures that may be different than Inductively Coupled Plasma (ICP) Emission Analysis. Commonly, AA analysis is performed for mercury and selenium. Mercury analysis data validation is specifically detailed in the Inorganics Section of the Tier II Checklist. The Tier I Data Validator is directed to the Agency's Data Validation Review Manual and to specific methods detailed in SW-846. In general, external calibration procedures are commonly required by the method. In addition, duplicate injections and multiple concentration post-digestion spikes are required to establish precision and accuracy data.	
4.3.1 Were duplicate injection of samples performed and if so, were the duplicates within ± 20% RPD for samples with concentrations above the detection limit? **Note: Results are reported based upon the average of duplicate injections. If the acceptance criteria is not met, the sample should have been re-analyzed (i.e., with at least two additional injections).** *Action: If RSD criteria is not met or the sample was not rerun, qualify all positive data as "J."*	List sample IDs and appropriate method and calculated RPD:
4.3.2 If the samples were re-analyzed (*i.e.*, 2 more injections), do the duplicate injections agree within 20% RSD? *Action: If the RSD criteria is not met, qualify all positive results as "J."*	No. _____ Yes. _____. List sample IDs and appropriate method and calculated RSD.
4.3.3 Were Matrix Spike/Matrix Spike Duplicates analyzed at a rate of 1 in 20 or per batch? *Action: If no MS/MSD were analyzed, qualify all positive results as "J" and all undetected results as "UJ."*	

4.4 Spikes - Mercury Analysis

4.4.1 Was a Matrix Spike analyzed at required frequency (one pre-digestion for each group of samples with a similar matrix type and concentration or sample delivery group) and within limits? **Note: Post-digestion spikes are not required for Mercury. However one typically is run if the LCS was out of control in order to show matrix interference.** *Action: If the spike recovery is greater than 125 % and the sample results are below the detection limit, the data is acceptable.* *If the spike recovery is greater than 125% or less than 75%, and the sample results are greater than the detection limit, then the positive data should be qualified as "J."* *If the spike recovery falls within the range of 30 to 74%, all non-detected data should be qualified as "UJ."* *If the spike recovery is less than 30% and the sample results are below the detection limit, qualify these results as "R."*	
4.4.2 If the analyte concentration in the original sample is a factor of 50 above the IDL, was a serial dilution analysis performed and did it agree within a 10% difference of the original determination after correction for dilution?	
4.4.3 Was an LCS analyzed per batch and within QC limits (80 to 120%)? (An LCS is not required for aqueous samples of Mercury.) **Note: The results for solid LCS should always be within the control limits. The laboratory should terminate the analysis, correct the problem, and the samples should be re-digested and re-analyzed for mercury.** *Action: If the LCS is outside of the control limit, qualify all positive results as "J."* *If the LCS results are higher than control limits and the sample results are below the detection limit, the results are acceptable.* *If the LCS result is below the lower control limit, qualify all results below the detection limit as "UJ."*	

Section 5.0
Characteristic Tests

5.1 TCLP Preparation and TCLP Spike Recovery
Toxicity Characteristic Leaching Procedure The toxicity characteristic leaching procedure (TCLP) is used to determine whether wastes exhibit the toxicity characteristic or whether Land Disposal Restrictions have been met. The TCLP test is specified in OAC 3745-51-24 and defined in SW-846, Method 1311. TCLP data validation requires specific data concerning extraction preparation in addition to the usual data submitted for organic and inorganic analytical methods. In most cases, a laboratory will have to supply bench sheet data to complete data validation. The validator should consult the Tier I Data Validation Guidance Manual for specific information and examples.

5.1 TCLP Preparation and TCLP Spike Recovery	
5.1.1 Did the laboratory calculate TCLP filterable solids? Based on the percent solid calculations, were the correct analytical procedures followed? **Note: TCLP requires that solid waste, semi-solid waste and liquid wastes be prepared based upon the amount of solids in the waste. For waste that has greater than 99.5% solids, the waste is considered solid and a 100 grams of material is extracted with 20 times this weight of extraction fluid. For waste that is equal to or less than 0.5% solids, the waste is considered a liquid and the liquid itself is considered the extract (no additional extraction fluid or tumbling is necessary). If the waste contains both solids and liquids, the solid portion, trapped by filtering, is extracted with 20 times it's weight of extraction fluid and then analyzed. In addition, an aliquot of the liquid is analyzed. The results are then mathematically combined.** *Action: If percent solids were not calculated contact the facility for the proper information.* *If, based on the percent solids calculations, the appropriate preparation methods were not used, qualify analytical results using the following criteria:* *All positive results above the regulatory level should not be qualified.* *All positive results above the detection limits but below the regulatory level should be qualified based on professional judgement and the specific circumstances. You may want to speak with your Tier II validator.* *All non-detected results should be qualified based on professional judgement and the specific circumstances.*	

5.1 TCLP Preparation and TCLP Spike Recovery	
5.1.2 Was the proper amount of material extracted? **Note: For waste samples to be analyzed for metals or SVOCs (in the solid portion), a minimum of 100 grams is required. For waste samples to be analyzed for volatile compounds, approximately 20-25 grams of sample is required.** **Note: Liquid samples are directly analyzed as the TCLP extract, no extraction fluid is added to the sample.** *Action: If improper sample mass is used, qualify analytical results using the following criteria:* *All positive results above the regulatory level should not be qualified.* *All positive results above the detection limits, but below the regulatory level should initially be qualified as "J" estimated. Based on professional judgement, qualification of data as "R" may be warranted.* *Based on professional judgement, all non-detected results should be qualified as "J" estimated or "R."*	List sample IDs and sample mass(es) used for the extraction:
5.1.3 Was the correct extraction fluid used? **Notes:** **Fluid # 1 is <u>always</u> used for VOC analysis.** **Fluid #1 should be used if the final pH of the pre-test sample is below 5.0.** **If the pH is above 5.0, hydrochloric acid should be added to the pre-test sample (refer to the method for specifics).** **Re-analyze for pH.** **Fluid #1 should be used if the final pH of the pre-test sample is below 5.0.** **Fluid #2 should be used if the final pH of the pre-test is above 5.0.** *Action: Consult with the facility and have the extraction fluid information submitted. If the improper fluid is used, qualify analytical results using the following criteria:* *All positive results above the regulatory level should not be qualified.* *All positive results above the detection limits, but below the regulatory level, should initially be qualified as "J." Rejection of data may be warranted if other preparatory procedures are outside of criteria.* *All non-detected results should be qualified as "R."*	List sample IDs and fluid type(s) used for the extraction:

5.1 TCLP Preparation and TCLP Spike Recovery	
5.1.4 Did the extraction fluid have the proper pH? Fluid #1 has a pH range of 4.88 to 4.98 Fluid #2 has a pH range of 2.83 to 2.93. *Action: If an improperly prepared extraction fluid is used, qualify analytical results using the following criteria:* *All positive results above the regulatory level should not be qualified.* *All positive results above the detection limits, but below the regulatory level, should initially be qualified as "J." Rejection of data may be warranted if other preparatory procedures are outside of criteria.* *All negative results should be qualified as "R."*	List incorrect fluid pH(s):
5.1.5 Was the correct weight of extraction fluid used? Laboratory bench sheets may be needed to complete this section. **Note: For waste that has greater than 99.5% solids, the waste is considered solid, and 100 grams of material are extracted with fluid 20 times this weight. For waste that is equal to or less than 0.5% solids, the waste is considered a liquid, and the liquid itself is considered the extract (no additional extraction fluid or tumbling is necessary). If the waste contains both solids and liquids, the solid portion, trapped by filtering, is extracted with fluid 20 times its weight. This extract can either be physically recombined with the liquid portion for analysis, or the estract and liquid portions can be analyzed separately and those results conbined mathematically.** *Action: The extraction fluid weight should be within 85 - 115% of the correct value (2000 grams for metals; 500 grams for VOCs). These values may be re-qualified if additional problems with TCLP preparation exist.* *If the extraction fluid weight is within 70 - 85% or 115 - 130% of the correct value, qualify all results as "J."* *If the extraction fluid weight is 0 - 70% of the proper weight, qualify all results as "R."* *If the extraction fluid weight is greater than 130% of the proper weight, qualify all non-detected compounds, and positive results below the regulatory level, as "R." All positive results above the regulatory limit should not be qualified.*	

5.1 TCLP Preparation and TCLP Spike Recovery	
5.1.6 Was a TCLP blank analyzed with every batch of samples? **Note: TCLP blanks should be prepared using the same extraction fluid as is used for the associated sample's extraction.** *Action: Contact the facility for submittal of missing data. If no blank was analyzed, qualify all positive results as "R." If data is available, qualify TCLP data as designated in Section 4.0 Blank Data Summary Review*	List IDs of affected samples:
5.1.7 Was the tumbling time within 18 +/- 2 hours? **Note: Tumbling time (evaluated based on the day and time tumbling begins/is completed) should be noted on the bench sheets. The laboratory should be contacted if this information isn't present.** *Action: If the tumbling time is not within 18 +/- 2 hours, qualify all data as "J."*	
5.1.8 Was the tumbler speed within 30 +/-2 RPM? **Note: Tumbler speed should be noted on the bench sheets. The laboratory should be contacted if this information isn't present.** *Action: If the tumbler speed is not within 30 +/-2 RPM, qualify all data as "J."*	

VOC, SVOC and Metal results from the TCLP test should meet the sample QA/QC criteria outlined in Sections 1.0 through 4.0.

5.2 Ignitability
Ignitability **The two testing methods that may be used to determine this hazardous waste characteristic are SW-846 Method 1010 (Pensky-Martens Closed Cup, also ASTM D93-90 or D93-77) and Method 1020 (SETAFlash Closed Cup and ASTM D3828-93). Method 1020A is used for liquids that have lower viscosities and flashpoints between 0 °C and 110 °C.** **Method 1010 is the flashpoint method most often used by DHWM. It is used for "fuel oils, lube oils, suspensions of solids, liquids that tend to form a surface film under test conditions, and other liquids." For us, this includes things like paint wastes, parts cleaners, etc. To test the flash point, "the sample is heated at a slow, constant rate with continual stirring. A small flame is directed into the cup at regular intervals with simultaneous interruption of stirring. The flash point is the lowest temperature at which application of the test flame causes the vapor above the sample to ignite." Method 1010 has two options, termed "A" and "B". Method A, the basic procedure, is used unless the material being tested is a suspension of solids or a highly viscous material. Those materials require the use of Method B. There are specific requirements and apparatus for method 1010 that are not included in this check list. These items include recording of barometric pressure, thermometers, stirrer rates, wind shields and drying of wastes that contain free water. If necessary, specific testing requirements that are used should be discussed with the laboratory and appropriate qualifications of the data should be made.**

5.2 Pensky-Martens (SW-846, Method 1010) - Method A		
5.2.1	Was p-xylene used to calibrate the instrument?	
5.2.2	Was the flashpoint for the calibration standard p-xylene within 81± 6 °F?	Record the p-xylene calibration flashpoint(s):
5.2.3	If the calibration standard was outside of this range (see 6.1.2), was corrective action taken? *Action: If no corrective measures were performed, determine whether a significant bias has been imparted to the samples and qualify the results using professional judgement. If sample is still available, notify the laboratory. Consult Tier II evaluator regarding request re-analysis.*	Record IDs of samples that are qualified:
5.2.4	Based on 6.1.3, if corrective measures were taken, was the p-xylene calibration flashpoint within 81± 2 °F? **Note: Corrective measures should have continued until this flashpoint calibration range was attained.** *Action: If these procedures were not followed and documented, contact the laboratory for an explanation. Lack of an adequate explanation may justify qualifying the data.*	
5.2.5	If a sample has an expected flashpoint, based on field/facility information, measurements should begin at least 30-50° F below the expected flashpoint of the material. If the expected flashpoint is unknown, the initial measurements should begin at the ambient temperature of the laboratory. *Action: If these procedures were not followed and documented, contact the laboratory for an explanation. Lack of an adequate explanation may justify qualifying the data.*	

Attachment A - Comments

The following comments are divided into three categories: comments regarding the RCRA Site Closure Certification Report, Former Holding Pit Unit (Certification); comments regarding the Revised Closure Plan Approval Letter dated August 1, 2002; and comments regarding the Residual Risk Calculation in the Certification.

The following comments concern the RCRA Site Closure Certification Report, Former Holding Pit Unit (Certification).

1 **General.** To facilitate Ohio Environmental Protection Agency's (Ohio EPA) review of the Certification, Campbell Soup Company (CSC) shall address all of Ohio EPA's comments contained in this letter and submit the revised document, in its entirety, to Ohio EPA. This document shall follow the editorial protocol outlined in the preceding letter.

2 **General.** Throughout the Approved Closure Plan (Plan) and Certification, CSC utilizes the word "clean" to describe a portion of the soil at the CSC site. This can be found in the following:

a. Plan, Section 16.1, Final Cover System Construction and Testing Requirements, page 41.
b. Certification, Section 3.3, Initial Soil Excavation, page 10.
c. Certification, Table 3a, Summary of VOC Composite Clean Soil Stockpile Samples.
d. Certification, Table 3b, Summary of SVOC Composite Clean Soil Stockpile Samples.

Ohio EPA believes that this wording is inaccurate. Ohio EPA defines "clean" soil as soil that has not been impacted by any unit or site operations. CSC shall revise the Certification to clarify that CSC's definition of "clean" soil is soil that meets risk-based clean closure levels.

3 **Certification Section 2.8, Surface Water Sampling, Page 6-7.** CSC states that "Surface water was not observed to seep out of the elevated area at any time during site investigation nor during the soil remediation. Therefore, surface water samples were not collected as outlined in Section 14.2 of the Closure Plan." However, in the Plan, Section 14.2, Surface Water Sampling Plan, page 33, it states that "If no water is observed during field work, surface water samples will be collected from the on-site ditch, north of the mounded area. Ditch samples will be collected at the nearest point to the unit, at a location 100 yards up-stream from this point, and at a location 100 yards down-stream from this point." CSC shall follow Section 14.2 of the Plan, sample the on-site ditch as outlined, and submit the laboratory data to Ohio EPA within 30 days of receipt of this letter. CSC shall also revise the Certification to include the additional sampling and all corresponding information/data from the sampling.

4 **Certification Section 3.2, Soil Sampling Methods, Page 10.** CSC explains that the labels of the sample containers included "sample identification, sample date and time, parameter(s) for analysis, and person collecting the sample." However, the Plan states in Section 14.8, Sample Handling and Analysis, page 39, that each sample "will have a label to record... sample depth,..." CSC shall revise the Certification to include an explanation as to why sample depth was not included on the labels and will include each sample depth on all samples taken.

5 **Certification Section 3.3, Initial Soil Excavation, Page 10.** CSC explains that only some of the soil, the most heavily contaminated, was treated by the Medium Temperature Thermal Desorption (MTTD). Soil that was labeled "clean" according to the Photo Ionization Detector (PID) readings, was not necessarily treated by the MTTD, even though samples from the "clean" soil contain contamination. In Section 7.0, Removal of Hazardous Wastes and Soil Remediation, page 21 of the Plan, it states that "Soil identified as contaminated will be moved to the pre-remediation staging area for immediate treatment." Also, in Section 14.5, Remediation Verification, page 35 of the Plan, it states that "All contaminated excavated soil will be transported to the on-site MTTD for treatment." CSC shall revise the Certification to explain the reasoning behind the altered methodology in the closure.

6 **Certification Section 3.3, Initial Soil Excavation, Page 10.** The Certification defines the classifications of contaminated soil based on the PID readings. Those classifications are as follows:

a. "Soils that exhibited PID concentrations less than 10 ppm were characterized as 'suspected clean.'"
b. "Soils that exhibited PID concentrations less than 100 but higher than 10 ppm were characterized as 'intermediate.'"
c. "Soils that exhibited PID concentrations greater than 100 ppm were characterized as 'impacted.'"

However, the Certification does not define which classification a PID reading of exactly 10 parts per million (ppm) or exactly 100 ppm would constitute. CSC shall revise the Certification to include the classifications of the PID reading "10 ppm" and "100 ppm." CSC shall also include a list of any samples that exhibited a PID reading of "10 ppm" or "100 ppm" and the fate of such samples.

7 **Certification Section 3.3, Initial Soil Excavation, Page 10-11.** The last paragraph on page 10 is not clear. Ohio EPA believes the units are not consistent. Ohio EPA does not understand the correlation between the 100 cubic yard sample grids and the 100 ton sample grids. CSC shall revise the Certification to clarify the discrepancy in this section.

8 **Certification Section 3.3, Initial Soil Excavation, Page 10 and Certification Section 3.4, Impacted Soil Excavation, Page 11.** The Certification does not include an explanation of the methodologies used to determine the depth of the excavation. Also, the Certification does not provide assurance that the samples found to possess contamination were adequately excavated to the corresponding sample depth. CSC shall revise the Certification to include the methodologies used to determine the depth of the excavation and assurance that the corresponding depth was excavated and treated properly. CSC shall provide proof in the Certification that the samples proposed to be excavated actually were excavated. CSC shall also revise the Certification to include the depths of the excavation relative to the sample depths. For example, if sample X-Y-Z has a sample depth of 12 feet, laboratory analysis shows lead contamination in X-Y-Z, and CSC proposed to excavate and treat sample X-Y-Z, then CSC needs to provide assurance that soil was excavated to at least 12 feet at sample point X-Y-Z.

9 **Certification Section 3.3, Initial Soil Excavation, Page 10 and Certification Section 3.4, Impacted Soil Excavation, Page 11.** The Plan describes in Section 7.0, Removal of Hazardous Wastes and Soil Remediation, page 21, that "All soils within the areas delineated for the second and third stages of excavation will be considered impacted, and immediately transported to the MTTD soil treatment staging area." In the same section CSC defines these stages as "second stage... between 680 and 675 feet MSL...third stage...between 675 and 670 feet..." CSC has shown no proof or given any assurance that this took place during the closure. CSC shall revise the Certification to include assurances that this portion of the Plan was followed. If CSC did not follow the Plan, then a detailed explanation of the methods utilized in place of this section shall be included in the Certification.

10 **Certification Section 4.2, Confirmation Sampling, Page 16.** CSC explains that "Twenty-four confirmation samples were collected from the floor and sidewalls: fourteen were from planned locations, five were repeats of the planned sample locations..., and five others were investigative in nature..." The Plan states in Section 14.6.3, Sampling of Grid, page 37, that "Twenty (20) soil samples will be collected..., ...six (6) samples will be held.

If sampling abnormalities exist... then the held samples will be analyzed..." CSC shall revise the Certification to explain the reason samples were not held as previously outlined in the Plan.

11 **Certification Section 4.7, Vertical Site Delineation, Page 19.** CSC states in the Certification that to complete the vertical delineation of Volatile Organic Compounds (VOCs), "...four locations were chosen within the excavations where the floor confirmation samples reported non-detectable concentrations of VOCs. To obtain the second vertical sample, deeper pits were dug at these locations..." The Certification does not explain what was done with the excavated soil for the test pits. CSC shall revise the Certification to explain what happened to this soil.

12 **Certification Section 4.7, Vertical Site Delineation, Page 19.** CSC states in the Certification that to complete the vertical delineation of VOCs, "...four locations were chosen within the excavations where the floor confirmation samples reported non-detectable concentrations of VOCs. To obtain the second vertical sample, deeper pits were dug at these locations..." It is common practice to randomly choose the sites where vertical delineation samples will be taken. CSC will revise the Certification to explain the methodology of picking the non-detectable (ND) samples and not randomly selecting the sample locations.

13 **Certification Section 4.7, Vertical Site Delineation, Page 19.** CSC states in the Certification that to complete the vertical delineation of VOCs, "...four locations were chosen within the excavations where the floor confirmation samples reported non-detectable concentrations of VOCs. To obtain the second vertical sample, deeper pits were dug at these locations..." This does not follow the sampling plan outlined in the Plan, Section 14.7, Site Delineation Sampling Plan, page 38, which states that "Geoprobe borings will be advanced in a minimum of four locations throughout the site excavation. At each boring location a minimum of two consecutive vertical soil samples will be collected." CSC shall revise the Certification to explain the reason the Plan was not followed.

14 **Certification Section 4.7, Vertical Site Delineation, Page 19 and Certification Figure 6, Final Confirmation Samples and Final Extent of Excavation.** In this section, CSC lists the floor samples and corresponding test pit samples used for the VOC vertical site delineation of contamination. In Figure 6, it appears that the floor samples and test pit samples are not positioned in the same area. For example, Test Pit #1 (TP-1) corresponds with Floor Sample #18 (FL-18), which appears to be approximately 30 feet away. CSC shall revise the Certification to include an explanation for the horizontal distance between the test pit samples and floor samples.

15 **Certification Tables.** The following tables do not include the depth of the sample.

a. Table 4a, Summary of VOC Intermediate Soil Stockpile Samples.
b. Table 7a, Summary of VOC Confirmation Floor Samples.
c. Table 7b, Summary of SVOC Confirmation Floor Samples.
d. Table 8a, Summary of VOC Confirmation Sidewall Samples.
e. Table 8b, Summary of SVOC Confirmation Sidewall Samples.

CSC shall revise the Certification to include the depth of each sample in each table listed and any other part of the Certification where the depth of samples or of the excavation may be needed.

16 **Certification Table 6a, Summary of VOC Verification of Remediation Samples and Certification Table 6b, Summary of SVOC Verification of Remediation Samples.** According to these tables, the depth of the samples has a range of 100-5600 feet. This does not coincide with other site data. CSC shall revise the Certification to display the correct depths of the samples.

17 **Certification Table 9, Statistical Analysis of Confirmation Samples.** There is a discrepancy between the lab reports in Appendix B-4, Floor and Sidewall Confirmation Samples, and Table 9. CSC records 1,3,5-trimethylbenzene as ND in sample FL-35 of Table 9. However, the lab reports in Appendix B show that 1,3,5-trimethylbenzene was found at 3.2 µg/kg in sample FL-35. CSC shall revise the Certification to include the correct value in Table 9 and shall change all other values in all other areas of the Certification to reflect the correct values.

18 **Certification Table 9, Statistical Analysis of Confirmation Samples.** The coefficient of variation is not accepted by Ohio EPA. CSC shall explain the reasoning for using this test on confirmation samples. The Closure Plan Review Guidance (CPRG) describes how to determine the normality of a data set in Part I, Section 3.12, Guidance for Statistical Evaluation of Hazardous Waste Constituent Levels in Soils, page 48. Ohio EPA is not aware of any agreement made with CSC to allow the coefficient of variation to be used on the confirmation samples. If such an agreement was made, CSC shall revise the Certification to include documentation of this arrangement.

19 **Certification Figure 2, Napoleon Facility Plan View.** This figure lacks a label for the power generation plant. The power generation plant is referenced in Certification Section 1.2, Site Location and Description, page 1 of the Certification. CSC shall revise the Certification to include the label of the power generation plant as discussed on page 1.

20 **Certification Figure 6, Final Confirmation Samples and Final Extent of Excavation.** Ohio EPA believes that SW-46(5) was left out of this figure because SW-46(4) and SW-46(6') are clearly labeled on Figure 6. CSC shall revise the Certification to include all information on sample SW-46(5). If CSC did not take a sample at SW-46(5), then CSC shall revise the Certification to include an explanation of the method for labeling samples and why SW-46(5) was omitted.

21 **Certification Appendix A, Correspondence.** Appendix A is not complete. The following is a list of items that could not be found in Appendix A.

a. Ohio EPA required CSC to "complete and submit a health and safety plan to Ohio EPA, NWDO within 30 days of receipt of a notice of approval by Ohio EPA of the closure plan," in the Revised Closure Plan Approval Letter (RCPAL) dated August 1, 2002.
b. Certification Table 5, Inventory of Soil Removed or Closed in Place, shows that 100 tons of treated soil was taken to the Williams County Landfill. ML Chartier Weight Tickets are listed as the method for determining the quantity of the soil taken to Williams County Landfill. Comment 11 of the RCPAL states "copies of manifests and receipts will be sent to Ohio EPA, NWDO for any waste disposed off-site." These weight tickets were not found in either Appendix D, Williams County Waste Manifests; Appendix E, Henry County Load Tickets & Bill Of Lading; or Appendix A, Correspondence.
c. A letter addressed to James Moseley, Ohio EPA, dated October 23, 2002, from Michael Kovacich (for Craig Savage), requested that Ohio EPA consider the delineation of the horizontal extent of volatile organic compounds complete. Appendix A does not include any documentation from Ohio EPA that confirms or denies the completion of the VOC delineation.

The CPRG, Part I, Section 3.18, Certification, page 87, requires that "all correspondence regarding closure activity after Ohio EPA approval" be included in the certification report. CSC shall include all correspondence mentioned above and all other missing correspondence in the revised Certification.

22 **Certification Appendix B, Laboratory Reports and Chain of Custody.** Appendix B is incomplete. The following is a list of items that could not be found in Appendix B.

a. Certification Table 2, Summary of Test Pit Samples, lists vinyl acetate as ND for Test Pit #1, Test Pit #2, Test Pit #3, and Test Pit #4. However, the lab reports for these samples, located in Appendix B-1, Test Pit Samples, do not list vinyl acetate as a parameter.
b. Certification Table 3a, Summary of VOC Composite Clean Soil Stockpile Samples, lists 1,2,4-trimethylbenzene as ND for all clean soil stockpile samples. However, the lab reports for these samples, located in Appendix B-2, Clean and Intermediate Soil Stockpile Samples, do not list 1,2,4-trimethylbenzene as a parameter.
c. Certification Appendix B-2, Clean and Intermediate Soil Stockpile Samples, does not list 4-chlorotoluene as a parameter on samples taken December 6, 2002.
d. Certification Table 7a, Summary of VOC Confirmation Floor Samples, lists sample FL-2 vinyl acetate as ND. But, vinyl acetate is not listed as a parameter in the lab reports found in Appendix B-4, Floor and Sidewall Confirmation Samples.
e. Appendix B-4, Floor and Sidewall Confirmation Samples, does not contain all lab reports for samples SW-46(4) or SW-46-6'.
f. Certification Table 6a, Summary of VOC Verification of Remediation Samples, has vinyl acetate listed as ND, but vinyl acetate is not listed as a parameter on the lab reports in samples such as VR-03-04.

CSC shall revise the Certification to include complete lab reports, for all samples taken, that include all parameters during the investigation and remediation.

23 **Certification Appendix B, Laboratory Reports and Chain of Custody.** The Certification does not include complete laboratory packages from either lab that analyzed samples during the closure. Complete lab packages include, at a minimum, the following information for VOCs and Semi-Volatile Organic Constituents (SVOC): cover page signed by laboratory manager; chain of custody forms; case narrative; presence of field and sample identifications; holding times; preservation and cooler receipt; surrogate recoveries; laboratory blank data; spike data; laboratory control samples; initial calibration; continuing calibration; internal standards; and target compounds. CSC shall revise the Certification to include complete laboratory packages from each lab on separate compact disks.

Ohio EPA requires that the information needed to complete these documents be submitted with the Certification to ensure that the closure performance standards are met. To this end, Ohio EPA strongly suggests that the enclosed document, Data Validation Plan Review Form (Section 1.0, Report Completeness and Technical Holding Times, Section 2.0, VOC Data Validation, and Section 3.0, SVOC Data Validation) should be completed by CSC and submitted as an appendix to the Certification.

24 **Certification Appendix B-3, Verification of Remediation Samples.** The lab reports in the Verification of Remediation section have some "doubles" of samples such as VR-02-01 and VR-02-01(2). These samples are not included in the Certification tables. CSC shall revise the Certification to include an explanation for these samples and other samples listed in this fashion that do not follow CSC's labeling method.

25 **Certification Appendix B-3, Verification of Remediation Samples.** The lab reports in the Verification of Remediation section list VR-03-09 as "unscreened." The Certification does not explain the reason for this. CSC shall revise the Certification to include an explanation as to why this sample was not screened.

The following comments concern the Revised Closure Plan Approval Letter (RCPAL) from Ohio Environmental Protection Agency (Ohio EPA) to Dr. Osman Aly of Campbell Soup Company (CSC), dated August 1, 2002.

26 **Revised Closure Plan Approval Letter, Comment 9.** According to the chains of custody included in RCRA Site Closure Certification Report, Former Holding Pit Unit (Certification) Appendix B-6, Chain of Custody Forms, CSC has collected five (5) field blanks during the closure of the former holding pit unit. This does not meet the requirement found in Comment 9 of the RCPAL. Comment 9 states "For sampling and analysis involving waste delineation and confirmation, Campbell shall collect field blanks at a frequency of 10% of the total number of samples sent to the laboratory at a minimum of one field blank per day." Samples were taken on more than twenty (20) different days. Therefore, more than twenty (20) field blanks should have been collected. CSC shall include, in the revised Certification, all information relating to the missing field blanks. If CSC cannot provide this information, then CSC will provide an explanation as to why the RCPAL was not followed and any correspondence with Ohio EPA that agrees with this deviation from the RCPAL. For further explanation of how to correct this deficiency, please refer to Comment # 23.

27 **Revised Closure Plan Approval Letter, Comment 12.** The Certification contains several topographic maps of the former holding pit unit and surrounding areas. However, these maps do not include descriptions and locations of topographic features. This does not meet the requirement found in Comment 12 of the RCPAL. Comment 12 states "...Campbell shall include a topographic map depicting the ground surface elevations of the mound and natural grade with a scale no greater than 1 inch equals 30 feet and a contour interval no greater than 5 feet. It shall also include detailed descriptions and locations of the topographic features in the vicinity of the mound and at Campbell's plant which may affect conditions at the mound (i.e., buildings, rivers, ditches, etc...)." CSC shall revise the Certification to include a topographic map that meets the standards in Comment 12 of the RCPAL and does not include the excavation area, sampling points, etc.

28 **Revised Closure Plan Approval Letter, Comment 13.** The Certification does not include a separate appendix for the data generated during the ground water investigation. Comment 13 of the RCPAL states "...Campbell shall include a separate appendix in the closure certification report which contains all the data generated during the ground water investigation." CSC shall revise the Certification to include the aforementioned appendix.

The following comments concern Section 5.2.3, Residual Risk Calculation; Table 11, Estimates of Residual Risk; and general risk assessment in the RCRA Site Closure Certification Report, Former Holding Pit Unit (Certification).

29 **Certification, General Risk Assessment.** Throughout the Approved Closure Plan (Plan), Campbell Soup Company (CSC) consistently states that they will be closing the site using the Multiple Chemical Adjusted Risk-Based Generic Clean-up Numbers (MCAGCNs). This can be found in the following references:

a. Plan, Section 13.0, Risk-Based Remediation Standards, page 30, states "Risk-based residential direct contact cleanup numbers adjusted for multiple chemicals, as provided by OEPA risk assessors on May 20, 2002, will be used as the basis of this site closure."
b. Plan, Section 14.6.1, Determination of the Number of Samples, page 35, states "Samples will be collected...to confirm that the maximum remaining soil concentrations for each remaining chemical of concern is below the OEPA calculated multiple chemical adjusted direct contact standards."

c. Plan, Section 16.0, Specifics for Waste-In-Place Closures, page 41, states, "Soils impacted by releases from the former holding pit will remain in place only at concentrations below the site-specific risk based cleanup numbers..."

However, the Certification does not demonstrate the use of MCAGCNs. The Certification demonstrates the use of Risk-Based Generic Clean-up Numbers (GCNs) that were not adjusted for multiple chemicals. Although the way that CSC has used the GCNs is defensible, it is not consistent with the Plan. CSC shall revise the Certification to include an explanation for the deviation from the Plan.

30 **Certification, General Risk Assessment.** The Certification does not include:

a. An explanation of tests used to determine whether the analytical data is normally distributed.
b. Whether the data was found to be normally distributed.
c. If the data was not normally distributed, which type of transformation was applied to it.

CSC shall follow the Closure Plan Review Guidance (CPRG), Part I, Section 3.12, Guidance for Statistical Evaluation of Hazardous Waste Constituent Levels in Soils, page 48, and CPRG, Part II, Section 3.2.4.1, Exposure Point Concentration for Soil, page 18, to determine the normality and concentration term used in the risk assessment. CSC shall revise the Certification to include this information for all chemicals of concern.

31 **Certification Section 5.2.3, Residual Risk Calculation, Page 23.** The first sentence in the section is unclear. Ohio Environmental Protection Agency (Ohio EPA) understands the first sentence to mean that residual risk was calculated at the site by determining the maximum concentration for each chemical of concern (COC). This maximum concentration was determined from the post-closure samples and was then divided by the corresponding GCN for that COC. If this is not what CSC meant, CSC shall revise the Certification to clarify this section.

32 **Certification Section 5.2.3, Residual Risk Calculation, Page 23.** CSC has used the maximum concentration of each COC in the post-closure samples to determine the residual risk. This method does not determine the total risk related to the entire unit, but the risk related to the soil in the post-closure samples. Ohio EPA does not accept this method used by CSC to determine the maximum concentration of each COC, and in turn, risk related to the entire unit. CSC will determine the maximum concentration of each COC from this unit by following the method described below.

CSC shall consider all soil samples taken, from the very first investigative sampling, completed in December 1999, through the last closure samples taken, in determining the maximum concentration of each COC. The only samples that should not be considered when determining the maximum concentration are samples that can be proven to be completely remediated to non-detectable levels for all COCs or proven to be excavated and disposed off-site. For example: All samples that fall within the former holding pit unit that were not treated or excavated must be included in the calculation for maximum concentration for each COC. This includes but is not limited to such samples as PB-02-52 , PB-02-53, PB-02-54, MW-1, MW-2, MW-3, PB-01-36, PB-01-40, PB-01-31, etc.

CSC shall list all samples that are not being taken into consideration for this calculation of the maximum concentration for COCs. CSC must provide adequate documentation to Ohio EPA that the samples that were left out were in fact treated to non-detect levels or shipped off-site.

33 **Certification Table 11, Estimates of Residual Risk.** The GCNs used in this table are not all correct. Please use the approved GCNs that are listed as Attachment A in the Revised Closure Plan Approval Letter (RCPAL). If a value is not given on Attachment A, please refer to Column 2, Single Chemical Non-cancer Direct Contact, and Column 3, Single Chemical Cancer Direct Contact, on the enclosed table titled "Table 1-Residual Generic Cleanup Numbers (GCNs) for Ohio Hazardous Waste Closures." If a value is needed for a chemical of concern and is not on either list, please contact Ohio EPA for that GCN value.

34 **Certification Table 11, Estimates of Residual Risk.** Ohio EPA cannot replicate the 95% Upper Confidence Limit (UCL) calculation used by CSC. To facilitate Ohio EPA's review of the Certification, CSC shall include a table that lists all sample concentrations used to calculate the 95% UCL for each COC and a sample calculation for one of the COCs.

35 **Certification Table 11, Estimates of Residual Risk.** Table 11 does not include carbazole in the cancer risk calculation. Ohio EPA recognizes that carbazole exhibits a cancer risk. CSC shall revise the Certification to include carbazole in the cancer risk calculation.

36 **Certification Table 11, Estimates of Residual Risk.** To facilitate in Ohio EPA's review of the Certification, CSC shall include in the Certification a summary table that lists all samples and the concentrations of the COCs that were not excavated or treated and were used in the risk calculation.

37 **Supplemental Letter to the Certification, Received by Ohio EPA on August 6, 2003; Certification Figure 3, Soil Boring Locations and Initial Extent of Excavation; and Certification Figure 6, Final Confirmation Samples and Final Extent of Excavation.** Figure 3 and Figure 6 show that some of the samples that had contamination from one or more of the 26 COCs, were left out of the residual risk calculation and not excavated. These sample point locations include but are not limited to PB-01-30, PB-01-36, PB-01-39, PB-01-44, PB-01-46, and PB-01-50. CSC shall revise the Certification to show the following modifications:

a. Acenaphthene shall be left out of the residual risk calculation if, and only if, CSC can revise the Certification to provide Ohio EPA assurance that the depth of the excavation, at the sampling points where this chemical was found, is at or below the depth of the sample.

b. Because of the low frequency of detection for 1,1-dichloropropene, 1,2-dibromo-3-chloropropane, hexachlorobutadiene, and, bromobenzene, these COCs may be left out of the residual risk calculation even though not all sampling points that contained these COCs have been excavated and treated to non-detectable (ND) levels, or disposed off site.

c. The 21 other COCs in the supplemental letter that were left out of the residual risk calculation, must be included in the risk calculation in the revised Certification. It appears that CSC is trying to screen these remaining 21 chemicals out of the risk calculation. According to the CPRG, Part II, Appendix D, Section 3.4, Potential Problems, page 9, CSC cannot use the GCNs "as screening values to eliminate chemicals from further consideration in a... risk assessment." Therefore, these COCs shall be included in the residual risk calculation and the maximum concentrations will be calculated from all samples that cannot be proven to be excavated and treated to ND levels or removed off-site.

Table 1 - Residential Generic Cleanup Numbers (GCNs) for Ohio Hazardous Waste Closures

CONTAMINANT	1 Calculated Soil Saturation Limit (SAT) (mg/kg)	2 Single Chemical Noncancer Direct Contact (mg/kg)	3 Single Chemical Cancer Direct Contact (mg/kg)	4 Single Chemical Cleanup No. GCN Direct Contact Soil (mg/kg)		5 Single Chemical Noncancer Protective Of Ground Water (1DAF)(mg/kg)	6 Single Chemical Cancer Protective Of Ground Water (1DAF)(mg/kg)	7 Single Chemical Cleanup No. GCN Protective Of Ground Water (1 DAF)(mg/kg)		8 Single Chemical Noncancer Protective Of Ground Water (20 DAF)(mg/kg)	9 Single Chemical Cancer Protective Of Ground Water (20 DAF)(mg/kg)	10 Single Chemical Cleanup No. GCN Protective Of Ground Water (20 DAF)(mg/kg)		11 Solubility (mg/L)	12 Maximum Contaminant Level MCL (mg/l)	13 Single Chemical Noncancer Ground Water Concentration (mg/l)	14 Single Chemical Cancer Ground Water Concentration (mg/l)	15 Single Chemical Cleanup No. Ground Water Concentration (mg/l)	
Acenaphthene	-	2.38E+03	-	2.38E+03	nc	7.01E+00	-	7.01E+00	nc	1.40E+02	-	1.40E+02	nc	4.24E+00	-	7.01E-01	-	7.01E-01	nc
Acetone	1.01E+05	4.69E+03	-	4.69E+03	nc	3.05E-01	-	3.05E-01	nc	6.11E+00	-	6.11E+00	nc	1.00E+06	-	1.52E+00	-	1.52E+00	nc
Acetophenone	1.14E+03	5.61E-01	-	5.61E-01	nc	1.01E-05	-	1.01E-05	nc	2.02E-04	-	2.02E-04	nc	6.13E+03	-	3.54E-05	-	3.54E-05	nc
Acrylonitrile	7.56E+03	4.25E+00	1.22E+00	1.22E+00	ca	5.83E-04	1.19E-04	1.19E-04	ca	1.17E-02	2.38E-03	2.38E-03	ca	7.35E+04	-	2.88E-03	5.88E-04	5.88E-04	ca
Aldrin	-	1.52E+00	2.42E-01	2.42E-01	ca	4.55E-02	3.84E-03	3.84E-03	ca	9.11E-01	7.67E-02	7.67E-02	ca	1.80E-01	-	4.66E-04	3.93E-05	3.93E-05	ca
Aluminum	-	4.12E+04	-	4.12E+04	nc	3.50E+01	-	3.50E+01	nc	6.99E+02	-	6.99E+02	nc	-	-	1.46E+01	-	1.46E+01	nc
Aluminum phosphide	-	1.67E+01	-	1.67E+01	nc	1.68E-03	-	1.68E-03	nc	3.37E-02	-	3.37E-02	nc	1.92E+05	-	5.85E-03	-	5.85E-03	nc
Aniline	5.56E+03	6.02E+00	7.22E+02	6.02E+00	nc	4.45E-04	2.94E-02	4.45E-04	nc	8.91E-03	5.88E-01	8.91E-03	nc	3.66E+04	-	1.77E-03	1.17E-01	1.77E-03	nc
Anthracene	-	1.19E+04	-	1.19E+04	nc	4.80E+01	-	2.04E+00	sol	9.59E+02	-	4.08E+01	sol	4.34E-02	-	1.02E+00	-	4.34E-02	sol
Antimony	-	2.42E+01	-	2.42E+01	nc	2.76E-01	-	2.71E-01	mcl	5.53E+00	-	5.42E+00	mcl	-	6.00E-03	6.12E-03	-	6.00E-03	mcl
Aroclor 1016	3.71E+01	3.11E+00	1.40E+00	1.40E+00	ca	1.48E-02	4.00E-03	4.00E-03	ca	2.96E-01	7.99E-02	7.99E-02	ca	9.06E-01	-	3.61E-04	9.74E-05	9.74E-05	ca
Aroclor 1221	2.51E+00	-	1.68E+00	1.68E+00	ca	-	8.50E-04	8.50E-04	ca	-	1.70E-02	1.70E-02	ca	5.90E-01	-	-	1.95E-04	1.95E-04	ca
Aroclor 1232	-	-	1.80E+00	1.80E+00	ca	-	2.33E-03	2.33E-03	ca	-	4.65E-02	4.65E-02	ca	-	-	-	2.42E-04	2.42E-04	ca
Aroclor 1242	1.55E+01	-	1.80E+00	1.80E+00	ca	-	5.07E-03	5.07E-03	ca	-	1.01E-01	1.01E-01	ca	7.03E-01	-	-	2.28E-04	2.28E-04	ca
Aroclor 1248	-	-	1.80E+00	1.80E+00	ca	-	2.14E-02	2.14E-02	ca	-	4.29E-01	4.29E-01	ca	1.70E-02	-	-	1.10E-04	1.10E-04	ca
Aroclor 1254	2.17E+02	8.88E-01	1.80E+00	8.88E-01	nc	7.12E-02	7.73E-02	7.12E-02	nc	1.42E+00	1.55E+00	8.88E-01	dc	7.00E-02	-	2.30E-05	2.49E-05	2.30E-05	nc
Aroclor 1260	2.65E+02	-	1.80E+00	1.80E+00	ca	-	1.79E-01	1.79E-01	ca	-	3.58E+00	1.80E+00	dc	2.70E-02	-	-	1.83E-05	1.83E-05	ca
Arsenic	-	2.06E+01	3.73E+00	3.73E+00	ca	1.18E-01	1.13E-02	1.13E-02	ca	2.36E+00	2.25E-01	2.25E-01	ca	-	5.00E-02	4.68E-03	4.47E-04	4.47E-04	ca
Barium and compounds	-	2.90E+03	-	2.90E+03	nc	1.15E+01	-	1.15E+01	nc	2.29E+02	-	2.29E+02	nc	-	2.00E+00	1.02E+00	-	1.02E+00	nc
Benz[a]anthracene	-	-	4.40E+00	4.40E+00	ca	-	1.74E-01	1.74E-01	ca	-	3.48E+00	3.48E+00	ca	9.40E-03	-	-	2.43E-04	2.43E-04	ca
Benzene	4.65E+02	9.34E+00	6.38E+00	6.38E+00	ca	2.65E-03	1.84E-03	1.72E-03	mcl	5.30E-02	3.67E-02	3.43E-02	mcl	1.75E+03	5.00E-03	7.72E-03	5.35E-03	5.00E-03	mcl
Benzidine	-	1.25E+02	1.48E-02	1.48E-02	ca	4.95E+01	3.08E-03	3.08E-03	ca	9.89E+02	6.16E-02	1.48E-02	dc	4.00E+02	-	4.66E-02	2.90E-06	2.90E-06	ca
Benzo[a]pyrene	-	-	4.40E-01	4.40E-01	ca	-	3.46E-02	3.46E-02	ca	-	6.93E-01	4.40E-01	dc	1.62E-03	2.00E-04	-	1.79E-05	1.79E-05	ca
Benzo[b]fluoranthene	-	-	4.40E+00	4.40E+00	ca	-	4.40E-01	4.40E-01	ca	-	8.79E+00	4.40E+00	dc	1.50E-03	-	-	1.79E-04	1.79E-04	ca
Benzo[k]fluoranthene	-	-	4.40E+01	4.40E+01	ca	-	5.93E-01	5.93E-01	ca	-	1.19E+01	1.19E+01	ca	8.00E-04	-	-	2.41E-04	2.41E-04	ca
Benzoic acid	-	1.67E+05	-	1.67E+05	nc	2.02E+01	-	2.02E+01	nc	4.03E+02	-	4.03E+02	nc	3.50E+03	-	6.02E+01	-	6.02E+01	nc
Beryllium	-	2.17E+01	1.06E+04	2.17E+01	nc	1.65E+01	-	3.16E+00	mcl	3.30E+02	-	2.17E+01	dc	-	4.00E-03	2.09E-02	-	4.00E-03	mcl
Bis(2-chloro-1-methylethyl)ether	6.25E+02	2.03E+03	6.92E+00	6.92E+00	ca	2.68E-01	1.86E-03	1.86E-03	ca	5.36E+00	3.72E-02	3.72E-02	ca	1.70E+03	-	6.06E-01	4.21E-03	4.21E-03	ca
Bis(2-chloroethyl)ether	4.33E+03	-	1.72E+00	1.72E+00	ca	-	5.76E-05	5.76E-05	ca	-	1.15E-03	1.15E-03	ca	1.72E+04	-	-	1.64E-04	1.64E-04	ca
Bis(2-ethylhexyl)phthalate	7.55E+01	6.38E+02	1.85E+02	7.55E+01	sat	2.63E+01	4.06E+00	1.33E+00	mcl	5.25E+02	8.12E+01	2.67E+01	mcl	3.40E-01	6.00E-03	1.18E-01	1.83E-02	6.00E-03	mcl
Bromodichloromethane	1.50E+03	1.01E+03	6.64E+01	6.64E+01	ca	9.68E-02	3.36E-03	3.36E-03	ca	1.94E+00	6.72E-02	6.72E-02	ca	6.74E+03	1.00E-01	3.07E-01	1.06E-02	1.06E-02	ca
Bromoform	1.10E+03	8.37E+02	4.29E+02	4.29E+02	ca	1.40E-01	3.81E-02	3.81E-02	ca	2.80E+00	7.61E-01	7.61E-01	ca	3.10E+03	1.00E-01	3.08E-01	6.38E-02	6.38E-02	ca
tanol	8.43E+03	4.18E+03	-	4.18E+03	nc	3.29E-01	-	3.29E-01	nc	6.59E+00	-	6.59E+00	nc	7.40E+04	-	1.54E+00	-	1.54E+00	nc
yl benzyl phthalate	7.40E+01	8.37E+03	-	7.40E+01	sat	5.86E+01	-	5.86E+01	nc	1.17E+03	-	7.40E+01	sat	2.69E+00	-	2.12E+00	-	2.12E+00	nc
n-Butylbenzene	6.87E+01	5.07E+02	-	6.87E+01	sat	5.13E-01	-	5.13E-01	nc	1.03E+01	-	1.03E+01	nc	1.18E+01	-	8.77E-02	-	8.77E-02	nc
sec-Butylbenzene	8.16E+01	5.07E+02	-	8.16E+01	sat	4.44E-01	-	4.44E-01	nc	8.89E+00	-	8.89E+00	nc	1.76E+01	-	9.53E-02	-	9.53E-02	nc
tert-Butylbenzene	-	5.07E+02	-	5.07E+02	nc	4.43E-01	-	4.43E-01	nc	8.86E+00	-	8.86E+00	nc	-	-	9.53E-02	-	9.53E-02	nc
Cadmium and compounds**	-	3.19E+01	1.41E+04	3.19E+01	nc	1.11E-01	-	7.60E-02	mcl	2.22E+00	-	1.52E+00	mcl	-	5.00E-03	7.31E-03	-	5.00E-03	mcl
Carbazole	-	-	1.61E+02	1.61E+02	ca	-	1.29E-01	1.29E-01	ca	-	2.58E+00	2.58E+00	ca	7.48E+00	-	-	1.85E-02	1.85E-02	ca
Carbon disulfide	5.04E+02	3.50E+02	-	3.50E+02	nc	2.67E-01	-	2.67E-01	nc	6.35E+00	-	5.35E+00	nc	1.19E+03	-	6.70E-01	-	6.70E-01	nc
Carbon tetrachloride	5.05E+02	1.68E+00	2.34E+00	1.68E+00	nc	1.61E-03	1.53E-03	1.53E-03	ca	3.23E-02	3.06E-02	3.06E-02	ca	7.93E+02	5.00E-03	2.64E-03	2.50E-03	2.50E-03	ca
Chlordane	-	3.21E+01	1.49E+01	1.49E+01	ca	1.08E-01	1.70E-01	2.06E-02	mcl	2.15E+00	3.39E+00	4.11E-01	mcl	5.60E-02	2.00E-04	1.05E-03	1.65E-03	2.00E-04	mcl
p-Chloroaniline	1.23E+03	1.67E+02	-	1.67E+02	nc	1.96E-02	-	1.96E-02	nc	3.92E-01	-	3.92E-01	nc	5.30E+03	-	5.90E-02	-	5.90E-02	nc
Chlorobenzene	2.72E+02	1.25E+02	-	1.25E+02	nc	4.65E-02	-	4.65E-02	nc	9.29E-01	-	9.29E-01	nc	4.72E+02	1.00E-01	7.03E-02	-	7.03E-02	nc
Chloroethane	1.24E+03	4.35E+03	1.42E+03	1.24E+03	sat	1.24E+00	6.13E-02	6.13E-02	ca	2.47E+01	1.23E+00	1.23E+00	ca	5.74E+03	-	4.55E+00	2.26E-01	2.26E-01	ca
Chloroform	1.85E+03	2.45E+02	2.41E+00	2.41E+00	ca	3.88E-02	1.03E-03	1.03E-03	ca	7.77E-01	2.06E-02	2.06E-02	ca	7.92E+03	-	1.22E-01	3.24E-03	3.24E-03	ca
2-Chloronaphthalene	-	4.05E+03	-	4.05E+03	nc	3.17E+00	-	3.17E+00	nc	6.35E+01	-	6.35E+01	nc	1.17E+01	-	9.33E-01	-	9.33E-01	nc
2-Chlorophenol	2.34E+03	2.53E+02	-	2.53E+02	nc	1.55E-02	-	1.55E-02	nc	3.10E-01	-	3.10E-01	nc	2.20E+04	-	7.56E-02	-	7.56E-02	nc
Chromium III	-	2.19E+04	-	2.19E+04	nc	2.09E+04	-	1.20E+02	mcl	4.18E+05	-	2.40E+03	mcl	-	1.00E-01	1.74E+01	-	1.00E-01	mcl
Chromium VI	-	7.38E+01	2.11E+03	7.38E+01	nc	1.09E+00	-	1.09E+00	nc	2.17E+01	-	2.17E+01	nc	-	1.00E-01	3.48E-02	-	3.48E-02	nc
Chrysene	-	-	4.40E+02	4.40E+02	ca	-	1.94E+01	1.27E+00	sol	-	3.87E+02	2.55E+01	sol	1.60E-03	-	-	2.43E-02	1.60E-03	sol
Cobalt	-	2.07E+03	-	2.07E+03	nc	1.84E+00	-	1.84E+00	nc	3.69E+01	-	3.69E+01	nc	-	-	9.13E-01	-	9.13E-01	nc
Copper	-	1.55E+03	-	1.55E+03	nc	1.09E-01	-	1.09E-01	nc	2.17E+00	-	2.17E+00	nc	-	-	5.41E-01	-	5.41E-01	nc
Cyanide	2.73E+04	1.01E+03	-	1.01E+03	nc	8.93E-02	-	5.73E-02	mcl	1.79E+00	-	1.15E+00	mcl	9.54E+04	2.00E-01	3.12E-01	-	2.00E-01	mcl
n	5.52E+04	1.25E+03	-	1.25E+03	nc	9.51E-02	-	4.20E-02	mcl	1.90E+00	-	8.40E-01	mcl	5.02E+05	2.00E-01	4.53E-01	-	2.00E-01	mcl
/[ah]anthracene	-	-	4.40E-01	4.40E-01	ca	-	3.33E-02	3.33E-02	ca	-	6.66E-01	4.40E-01	dc	2.49E-03	-	-	9.30E-06	9.30E-06	ca
zofuran	-	2.03E+02	-	2.03E+02	nc	1.90E-01	-	1.90E-01	nc	3.80E+00	-	3.80E+00	nc	4.22E+00	-	4.53E-02	-	4.53E-02	nc

Table 1 - Residential Generic Cleanup Numbers (GCNs) for Ohio Hazardous Waste Closures

CONTAMINANT	1 Calculated Soil Saturation Limit (SAT) (mg/kg)	2 Single Chemical Noncancer Direct Contact (mg/kg)	3 Single Chemical Cancer Direct Contact (mg/kg)	4 Single Chemical Cleanup No. GCN Direct Contact Soil (mg/kg)		5 Single Chemical Noncancer Protective Of Ground Water (1DAF) (mg/kg)	6 Single Chemical Cancer Protective Of Ground Water (1DAF) (mg/kg)	7 Single Chemical Cleanup No. GCN Protective Of Ground Water (1 DAF) (mg/kg)		8 Single Chemical Noncancer Protective Of Ground Water (20 DAF) (mg/kg)	9 Single Chemical Cancer Protective Of Ground Water (20 DAF) (mg/kg)	10 Single Chemical Cleanup No. GCN Protective Of Ground Water (20 DAF) (mg/kg)		11 Solubility (mg/L)	12 Maximum Contaminant Level MCL (mg/l)	13 Single Chemical Noncancer Ground Water Concentration (mg/l)	14 Single Chemical Cancer Ground Water Concentration (mg/l)	15 Single Chemical Cleanup No. Ground Water Concentration (mg/l)	
Dibromochloromethane	6.04E+02	8.37E+02	4.04E+01	4.04E+01	ca	1.01E-01	2.58E-03	2.58E-03	ca	2.02E+00	5.16E-02	5.16E-02	ca	2.60E+03	1.00E-01	3.07E-01	7.85E-03	7.85E-03	ca
1,2-Dichlorobenzene	1.36E+02	1.56E+02	-	1.36E+02	sat	4.93E-02	-	4.93E-02	nc	9.86E-01	-	9.86E-01	nc	1.56E+02	6.00E-01	5.11E-02	-	5.11E-02	nc
1,3-Dichlorobenzene	9.02E+01	4.56E+01	-	4.56E+01	nc	9.11E-03	-	9.11E-03	nc	1.82E-01	-	1.82E-01	nc	1.25E+02	-	1.12E-02	-	1.12E-02	nc
1,4-Dichlorobenzene	-	1.21E+03	3.27E+01	3.27E+01	ca	4.58E-01	1.17E-02	1.17E-02	ca	9.16E+00	2.35E-01	2.35E-01	ca	7.38E+01	7.50E-02	3.18E-01	8.15E-03	8.15E-03	ca
3,3-Dichlorobenzidine	-	-	7.54E+00	7.54E+00	ca	-	2.26E-03	2.26E-03	ca	-	4.52E-02	4.52E-02	ca	3.11E+00	-	-	1.37E-03	1.37E-03	ca
Dichlorodifluoromethane	6.22E+02		-	6.22E+02	sat	4.43E-01	-	4.43E-01	nc	8.86E+00	-	8.86E+00	nc	2.80E+02	-	3.17E-01	-	3.17E-01	nc
(DDD) Dichlorodiphenyldichloroethane			1.63E+01	1.63E+01	ca		1.36E-01	1.36E-01	ca		2.73E+00	2.73E+00	ca	9.00E-02	-		1.49E-03	1.49E-03	ca
(DDE) Dichlorodiphenyldichloroethene	-	-	1.15E+01	1.15E+01	ca	-	1.91E-01	1.91E-01	ca	-	3.83E+00	3.83E+00	ca	1.20E-01	-	-	1.11E-03	1.11E-03	ca
(DDT) Dichlorodiphenyltrichloroethane		9.30E+01	1.58E+01	1.58E+01	ca	4.53E+00	1.15E+00	1.15E+00	ca	9.06E+01	2.30E+01	1.59E+01	dc	2.50E-02		3.34E-03	8.50E-04	8.50E-04	ca
1,1-Dichloroethane	1.26E+03	5.69E+02	-	5.69E+02	nc	1.83E-01	-	1.83E-01	nc	3.66E+00	-	3.66E+00	nc	5.06E+03	-	5.60E-01	-	5.60E-01	nc
1,2-Dichloroethane	1.56E+03	1.07E+01	3.40E+00	3.40E+00	ca	2.38E-03	5.87E-04	5.87E-04	ca	4.77E-02	1.17E-02	1.17E-02	ca	8.52E+03	5.00E-03	8.53E-03	2.10E-03	2.10E-03	ca
1,1-Dichloroethylene	9.67E+02	1.25E+02	5.22E-01	5.22E-01	ca	1.01E-01	2.66E-04	2.66E-04	ca	2.03E+00	5.32E-03	5.32E-03	ca	2.25E+03	7.00E-03	2.40E-01	6.29E-04	6.29E-04	ca
1,2-Dichloroethylene (cis)	7.08E+02	5.07E+02	-	5.07E+02	nc	4.32E-02	-	2.00E-02	mcl	8.64E-01	-	4.00E-01	mcl	3.50E+03	7.00E-02	1.51E-01	-	7.00E-02	mcl
Dichloroethylene (trans)	1.56E+03	6.20E+01	-	6.20E+01	nc	2.72E-02	-	2.72E-02	nc	5.45E-01	-	5.45E-01	nc	6.30E+03	1.00E-01	8.80E-02	-	8.80E-02	nc
Dichloroethylene (mixture)	1.10E+03	5.74E+01	-	5.74E+01	nc	1.93E-02	-	1.93E-02	nc	3.86E-01	-	3.86E-01	nc	4.90E+03	-	6.49E-02	-	6.49E-02	nc
2,4-Dichlorophenol	-	1.52E+02	-	1.52E+02	nc	1.01E-01	-	1.01E-01	nc	2.01E+00	-	2.01E+00	nc	4.50E+03	-	4.30E-02	-	4.30E-02	nc
(2,4-D) 2,4-Dichlorophenoxyacetic acid	-	6.30E+02	-	6.30E+02	nc	3.74E-02	-	1.68E-02	mcl	7.48E-01	-	3.36E-01	mcl	6.77E+02	7.00E-02	1.56E-01	-	7.00E-02	mcl
1,2-Dichloropropane	6.03E+02	6.34E+00	6.05E+01	6.34E+00	nc	2.07E-03	2.91E-03	1.52E-03	mcl	4.13E-02	5.82E-02	3.04E-02	mcl	2.80E+03	5.00E-03	6.79E-03	9.57E-03	5.00E-03	mcl
1,3-Dichloropropene	7.81E+02	1.38E+01	6.34E+00	6.34E+00	ca	1.01E-02	1.50E-03	1.50E-03	ca	2.01E-01	3.01E-02	3.01E-02	ca	2.80E+03		3.29E-02	4.91E-03	4.91E-03	ca
Dieldrin	-	2.53E+00	2.57E-01	2.57E-01	ca	3.81E-02	2.05E-03	2.05E-03	ca	7.61E-01	4.09E-02	4.09E-02	ca	1.95E-01	-	7.43E-04	4.00E-05	4.00E-05	ca
Diethyl phthalate	2.86E+02	3.35E+04	-	2.86E+02	sat	4.44E+00		4.44E+00	nc	8.88E+01	-	8.88E+01	nc	1.08E+03	-	1.22E+01		1.22E+01	nc
Dimethyl phthalate	5.76E+02	4.18E+05	-	5.76E+02	sat	3.78E+01	-	3.78E+01	nc	7.56E+02	-	5.76E+02	sat	4.00E+03	-	1.55E+02	-	1.55E+02	nc
N,N-Dimethylformamide	-	4.18E+03	-	4.18E+03	nc	3.13E-01	-	3.13E-01	nc	6.26E+00	-	6.26E+00	nc	1.00E+06	-	1.56E+00	-	1.56E+00	nc
2,4-Dimethylphenol	4.08E+03	8.37E+02	-	8.37E+02	nc	1.80E-01	-	1.80E-01	nc	3.59E+00	-	3.59E+00	nc	7.87E+03	-	2.91E-01	-	2.91E-01	nc
Di-n-butyl phthalate	3.63E+01	4.18E+03	-	3.63E+01	sat	4.66E+00		4.66E+00	nc	9.32E+01		3.63E+01	sat	1.12E+01		1.40E+00	-	1.40E+00	nc
meta-Dinitrobenzene	-	4.18E+00	-	4.18E+00	nc	3.81E-04	-	3.81E-04	nc	7.63E-03	-	7.63E-03	nc	5.00E+02	-	1.55E-03	-	1.55E-03	nc
ortho-Dinitrobenzene		1.67E+01	-	1.67E+01	nc	1.52E-03	-	1.52E-03	nc	3.05E-02		3.05E-02	nc	1.52E+02	-	6.17E-03	-	6.17E-03	nc
2,4-Dinitrophenol	-	8.37E+01	-	8.37E+01	nc	8.24E-03	-	8.24E-03	nc	1.65E-01	-	1.65E-01	nc	2.79E+03	-	3.10E-02	-	3.10E-02	nc
2,4-Dinitrotoluene		8.37E+01	4.99E+00	4.99E+00	ca	1.20E-02	3.79E-04	3.79E-04	ca	2.39E-01	7.57E-03	7.57E-03	ca	2.70E+02		3.06E-02	9.58E-04	9.58E-04	ca
2,6-Dinitrotoluene	-	4.18E+01	4.99E+00	4.99E+00	ca	5.22E-03	3.30E-04	3.30E-04	ca	1.04E-01	6.60E-03	6.60E-03	ca	1.82E+02	-	1.54E-02	9.75E-04	9.75E-04	ca
Di-n-octyl phthalate	1.24E+02	8.37E+02	-	1.24E+02	sat	1.15E+02	-	1.15E+02	nc	2.30E+03	-	1.24E+02	sat	2.00E-02	-	1.88E-02	-	1.88E-02	nc
1,4-Dioxane	1.34E+05	-	3.08E+02	3.08E+02	ca	-	1.43E-02	1.43E-02	ca	-	2.85E-01	2.85E-01	ca	1.00E+06	-	-	6.10E-02	6.10E-02	ca
Endosulfan II		8.04E+02	-	3.04E+02	nc	3.96E-01		3.96E-01	nc	7.92E+00		7.92E+00	nc	5.10E-01		9.25E-02	-	9.25E-02	nc
Endrin	-	1.52E+01	-	1.52E+01	nc	9.72E-02	-	4.36E-02	mcl	1.94E+00	-	8.72E-01	mcl	2.50E-01	2.00E-03	4.46E-03	-	2.00E-03	mcl
Ethylbenzene	9.60E+01	1.38E+03	-	9.60E+01	sat	4.78E-01		4.45E-01	mcl	9.56E+00		8.90E+00	mcl	1.69E+02	7.00E-01	7.51E-01		7.00E-01	mcl
Ethylene glycol	1.00E+05	8.37E+04	-	8.37E+04	nc	6.26E+00	-	6.26E+00	nc	1.25E+02	-	1.25E+02	nc	1.00E+06	-	3.13E+01	-	3.13E+01	nc
Fluoranthene	2.02E+01	1.58E+03	-	2.02E+01	sat	2.65E+01		2.02E+01	sol	5.31E+02		2.02E+01	sat	2.06E-01	-	2.70E-01	-	2.06E-01	sol
Fluorene	-	1.58E+03	-	1.58E+03	nc	3.67E+00	-	3.67E+00	nc	7.33E+01	-	7.33E+01	nc	1.98E+00	-	2.35E-01	-	2.35E-01	nc
Fluoride	3.19E+00	2.51E+03	-	3.19E+00	sat	1.75E+00		1.75E+00	nc	3.49E+01		3.19E+00	sat	1.69E+00	4.00E+00	8.77E-01	-	8.77E-01	nc
Formaldehyde	4.18E+04	8.36E+03	1.93E+06	8.36E+03	nc	6.32E-01	-	6.32E-01	nc	1.26E+01	-	1.26E+01	nc	4.00E+05	-	3.09E+00	-	3.09E+00	nc
Formic acid	1.01E+05	8.37E+04	-	8.37E+04	nc	6.27E+00		6.27E+00	nc	1.25E+02		1.26E+02	nc	1.00E+06	-	3.12E+01	-	3.12E+01	nc
Heptachlor	-	2.53E+01	9.15E-01	9.15E-01	ca	1.85E-01	3.53E-03	3.53E-03	ca	3.70E+00	7.07E-02	7.07E-02	ca	1.80E-01	-	7.54E-03	1.44E-04	1.44E-04	ca
Heptachlor Epoxide		6.59E-01	4.52E-01	4.52E-01	ca	2.27E-02	8.27E-03	8.27E-03	ca	4.54E-01	1.65E-01	1.65E-01	ca	2.00E-01		1.36E-04	4.97E-05	4.97E-05	ca
Hexachloro-1,3-butadiene	3.38E+04	8.37E+00	4.35E+01	8.37E+00	nc	2.67E-02	7.38E-02	2.67E-02	nc	5.33E-01	1.48E+00	5.33E-01	nc	2.55E+03	-	2.00E-03	5.53E-03	2.00E-03	nc
Hexachlorobenzene		3.35E+01	2.12E+00	2.12E+00	ca	1.05E+00	3.55E-02	3.55E-02	ca	2.11E+01	7.11E-01	7.11E-01	ca	6.20E+00	1.00E-03	6.57E-03	2.22E-04	2.22E-04	ca
a-Hexachlorocyclohexane	-	3.35E+02	5.39E-01	5.39E-01	ca	4.18E-01	3.57E-04	3.57E-04	ca	8.36E+00	7.14E-03	7.14E-03	ca	2.00E+00	-	1.12E-01	9.60E-05	9.60E-05	ca
b-Hexachlorocyclohexane	1.05E+00		1.88E+00	1.05E+00	sat		1.48E-03	1.48E-03	ca		2.96E-02	2.96E-02	ca	2.40E-01			3.30E-04	3.30E-04	ca
Hexachlorocyclopentadiene	7.21E+02	2.50E+02	-	2.50E+02	nc	4.49E+00	-	4.49E+00	nc	8.97E+01	-	8.97E+01	nc	1.80E+00	5.00E-02	1.12E-02	-	1.12E-02	nc
Hexachloroethane		4.18E+01	2.42E+02	4.18E+01	nc	4.88E-02	1.60E-01	4.88E-02	nc	9.77E-01	3.00E+00	9.77E-01	nc	9.00E+01		3.29E-02	3.98E-02	1.29E-02	nc
n-Hexane	1.49E+02	7.20E+01	-	7.20E+01	nc	1.87E+00	-	1.87E+00	nc	3.75E+01	-	3.75E+01	nc	9.50E+00	-	2.23E-01	-	2.23E-01	nc
Indeno(1,2,3-cd)pyrene			4.40E+00	4.40E+00	ca	-	9.22E-01	1.53E-01	sol	-	1.84E+01	3.05E+00	sol	2.20E-05	-	-	1.33E-04	2.20E-05	sol
Iron	-	1.25E+04	-	1.25E+04	nc	2.19E+00	-	2.19E+00	nc	4.30E+01	-	4.30E+01	nc	-	-	4.39E+00	-	4.39E+00	nc
Isobutyl alcohol	1.21E+04	1.25E+04	-	1.21E+04	sat	1.35E+00		1.35E+00	nc	2.70E+01		2.70E+01	nc	5.50E+04	-	4.23E+00	-	4.23E+00	nc
Isophorone	2.32E+03	1.18E+02	-	1.18E+02	nc	1.73E-03	-	1.73E-03	nc	3.46E-02	-	3.46E-02	nc	1.20E+04	-	5.89E-03	-	5.89E-03	nc
Isopropylbenzene	2.91E+02	1.55E+03	-	2.91E+02	sat	2.17E+00		2.17E+00	nc	4.34E+01	-	4.34E+01	nc	5.00E+01	-	3.69E-01	-	3.69E-01	nc
Lindane	-	1.74E+01	3.63E+00	3.63E+00	ca	1.03E-02	1.13E-03	4.72E-04	mcl	2.06E-01	2.27E-02	9.44E-03	mcl	7.30E+00	2.00E-04	4.36E-03	4.81E-04	2.00E-04	mcl
Manganese		8.72E+02	-	8.72E+02	nc	6.98E-01		6.98E-01	nc	1.40E+01		1.40E+01	nc			3.45E-01	-	3.45E-01	nc
MCPA	-	2.09E+01	-	2.09E+01	nc	3.38E-03	-	3.38E-03	nc	6.76E-02	-	6.76E-02	nc	6.30E+02	-	3.08E-03	-	3.08E-03	nc

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CONTAMINANT	1 Calculated Soil Saturation Limit (SAT) (mg/kg)	2 Single Chemical Noncancer Direct Contact (mg/kg)	3 Single Chemical Cancer Direct Contact (mg/kg)	4 Single Chemical Cleanup No. GCN Direct Contact Soil (mg/kg)		5 Single Chemical Noncancer Protective Of Ground Water (1DAF)(mg/kg)	6 Single Chemical Cancer Protective Of Ground Water (1DAF)(mg/kg)	7 Single Chemical Cleanup No. GCN Protective Of Ground Water (1 DAF)(mg/kg)		8 Single Chemical Noncancer Protective Of Ground Water (20 DAF)(mg/kg)	9 Single Chemical Cancer Protective Of Ground Water (20 DAF)(mg/kg)	10 Single Chemical Cleanup No. GCN Protective Of Ground Water (20 DAF)(mg/kg)		11 Solubility (mg/L)	12 Maximum Contaminant Level MCL (mg/l)	13 Single Chemical Noncancer Ground Water Concentration (mg/l)	14 Single Chemical Cancer Ground Water Concentration (mg/l)	15 Single Chemical Cleanup No. Ground Water Concentration (mg/l)	
Mercury and compounds	-	2.84E-01	-	2.84E-01	nc	1.14E-04	-	1.14E-04	nc	2.28E-03	-	2.28E-03	nc	6.90E+04	2.00E-03	4.75E-04	-	4.75E-04	nc
Methanol	1.01E+05	2.09E+04	-	2.09E+04	nc	1.57E+00		1.57E+00	nc	3.13E+01	-	3.13E+01	nc	1.00E+06		7.80E+00		7.80E+00	nc
Methoxychlor	-	2.09E+02	-	2.09E+02	nc	5.35E+00	-	5.35E+00	nc	1.07E+02	-	1.07E+02	nc	4.50E-02	4.00E-02	3.34E-02	-	3.34E-02	nc
Methyl bromide	2.52E+03	3.75E+00	-	3.75E+00	nc	1.49E-03	-	1.49E-03	nc	2.98E-02	-	2.98E-02	nc	1.52E+04		6.20E-03		6.20E-03	nc
Methyl ethyl ketone	5.59E+04	6.64E+03	-	6.64E+03	nc	3.85E-01	-	3.85E-01	nc	7.70E+00	-	7.70E+00	nc	3.53E+05	-	1.49E+00	-	1.49E+00	nc
Methyl isobutyl ketone	5.59E+03	7.32E+02	-	7.32E+02	nc	5.64E-02	-	5.64E-02	nc	1.13E+00	-	1.13E+00	nc	1.90E+04	-	1.26E-01	-	1.26E-01	nc
Methyl tert butyl ether	5.94E+03	4.64E+02	-	4.64E+02	nc	3.23E-02	-	3.23E-02	nc	6.45E-01	-	6.45E-01	nc	5.10E+04	-	1.51E-01	-	1.51E-01	nc
Methylene chloride	1.78E+03	1.76E+03	8.50E+01	8.50E+01	ca	1.84E-01	1.31E-02	1.14E-03	mcl	3.68E+00	2.62E-01	2.28E-02	mcl	1.30E+04	5.00E-03	8.07E-01	5.75E-02	5.00E-03	mcl
Methylmercury	-	5.37E+00	-	5.37E+00	nc	3.20E-04	-	3.20E-04	nc	6.39E-03	-	6.39E-03	nc	-	-	1.56E-03	-	1.56E-03	nc
1-Methylnaphthalene	4.03E+01	3.65E+03	-	4.03E+01	sat	1.48E+00		1.48E+00	nc	2.95E+01		2.95E+01	nc	2.58E+01		8.90E-01		8.90E-01	nc
2-Methylphenol	-	2.09E+03	-	2.09E+03	nc	2.72E-01	-	2.72E-01	nc	5.43E+00	-	5.43E+00	nc	2.60E+04	-	7.10E-01	-	7.10E-01	nc
Methylphenol		2.09E+02		2.09E+02	nc	2.20E-02		2.20E-02	nc	4.40E-01		4.40E-01	nc	2.50E+04		7.38E-02		7.38E-02	nc
aphthalene	-	5.42E+01	-	5.42E+01	nc	1.34E-02	-	1.34E-02	nc	2.69E-01	-	2.69E-01	nc	3.10E+01	-	5.21E-03	-	5.21E-03	nc
Nickel (soluble salts)		7.45E+02		7.45E+02	nc	4.98E+00		4.98E+00	nc	9.96E+01		9.96E+01	nc	1.00E+06		3.08E-01		3.08E-01	nc
Nickel refinery dust	-	-	1.06E+05	1.06E+05	ca	-	-	NA	na	-	-	NA	na	-	-	-	-	NA	na
2-Nitroaniline		7.79E-02		7.79E-02	nc	8.41E-05		8.41E-05	nc	1.68E-03		1.68E-03	nc	1.47E+03		3.54E-04		3.54E-04	nc
Nitrobenzene	7.07E+02	1.69E+01	-	1.69E+01	nc	1.05E-03	-	1.05E-03	nc	2.09E-02	-	2.09E-02	nc	2.09E+03	-	2.39E-03	-	2.39E-03	nc
N-Nitrosodi-n-propylamine	1.46E+03	-	4.65E-01	4.65E-01	ca		2.83E-05	2.33E-05	ca		4.65E-04	4.65E-04	ca	9.89E+03	-	-	9.37E-05	9.37E-05	ca
N-Nitrosodiphenylamine	-	-	6.92E+02	6.92E+02	ca	-	2.97E-01	2.97E-01	ca	-	5.94E+00	5.94E+00	ca	3.51E+01	-	-	1.07E-01	1.07E-01	ca
Pentachlorophenol		9.65E+02	2.17E+01	2.17E+01	ca	2.33E-01	2.80E-03	1.38E-03	mcl	4.66E+00	5.61E-02	2.77E-02	mcl	1.95E+03	1.00E-03	1.68E-01	2.03E-03	1.00E-03	mcl
Phenol	-	1.52E+04	-	1.52E+04	nc	1.19E+00	-	1.19E+00	nc	2.37E+01	-	2.37E+01	nc	8.28E+04	-	4.61E+00	-	4.61E+00	nc
Polychlorinated Biphenyls (PCBs)		8.88E-01	1.80E+00	8.88E-01	nc	1.10E-02	1.19E-02	1.10E-02	nc	2.21E-01	2.38E-01	2.21E-01	nc	7.00E-01	5.00E-04	1.78E-04	1.92E-04	1.78E-04	nc
n-Propylbenzene	2.74E+01	5.07E+02	-	2.74E+01	sat	1.57E-01	-	1.57E-01	nc	3.14E+00	-	3.14E+00	nc	2.34E+01	-	1.28E-01	-	1.28E-01	nc
Pyrene		1.19E+03		1.19E+03	nc	8.61E+00		8.61E+00	nc	1.72E+02		1.72E+02	nc	1.35E-01		6.33E-02		6.33E-02	nc
Pyridine	-	3.96E+01	-	3.96E+01	nc	3.95E-03	-	3.95E-03	nc	7.89E-02	-	7.89E-02	nc	1.00E+06	-	1.48E-02	-	1.48E-02	nc
Quinoline	1.18E+05	-	1.07E+00	1.07E+00	ca	-	6.40E-05	6.40E-05	ca		1.28E-03	1.28E-03	ca	6.00E+05		-	2.16E-04	2.16E-04	ca
Selenium	-	3.42E+02	-	3.42E+02	nc	4.02E-01	-	2.60E-01	mcl	8.04E+00	-	5.20E+00	mcl	-	5.00E-02	7.73E-02	-	5.00E-02	mcl
Silver	-	1.67E+02	-	1.67E+02	nc	6.32E-01		6.32E-01	nc	1.26E+01		1.26E+01	nc	-		7.43E-02		7.43E-02	nc
Silver Cyanide	-	3.75E+03	-	3.75E+03	nc	1.22E+01	-	1.96E+00	sol	2.45E+02	-	3.91E+01	sol	2.30E-01	-	1.44E+00	-	2.30E-01	sol
Silvex	-	3.35E+02	-	3.35E+02	nc	5.60E-01		2.70E-01	mcl	1.12E+01		5.40E+00	mcl	1.40E+02	5.00E-02	1.04E-01	-	5.00E-02	mcl
Styrene	6.03E+02	4.01E+03	-	6.03E+02	sat	2.20E+00	-	2.03E-01	mcl	4.39E+01	-	4.07E+00	mcl	3.10E+02	1.00E-01	1.08E+00	-	1.00E-01	mcl
1,1,1,2-Tetrachloroethane	1.51E+02	1.52E+03	2.78E+01	2.78E+01	ca	1.06E-01	1.68E-03	1.68E-03	ca	2.12E+00	3.36E-02	3.36E-02	ca	1.10E+03		4.67E-01	7.40E-03	7.40E-03	ca
1,1,2,2-Tetrachloroethane	7.74E+02	-	3.56E+00	3.56E+00	ca	-	3.38E-04	3.38E-04	ca	-	6.77E-03	6.77E-03	ca	2.97E+03	-	-	9.42E-04	9.42E-04	ca
Tetrachloroethylene (PCE)	1.54E+02	4.97E+01	4.53E+01	4.53E+01	ca	3.62E-02	8.30E-03	3.98E-03	mcl	7.25E-01	1.66E-01	7.95E-02	mcl	2.00E+02	5.00E-03	4.55E-02	1.04E-02	5.00E-03	mcl
trahydrofuran	3.18E+04	1.15E+03	8.13E+01	8.13E+01	ca	9.38E-02	5.61E-03	5.61E-03	ca	1.88E+00	1.12E-01	1.12E-01	ca	3.00E+05	-	4.56E-01	2.73E-02	2.73E-02	ca
allium		6.00E+00		6.00E+00	nc	8.88E-02		8.88E-02	nc	1.78E+00		1.78E+00	nc	-	2.00E-03	1.25E-03		1.25E-03	nc
Toluene	2.27E+02	5.78E+02	-	2.27E+02	sat	2.76E-01	-	2.76E-01	nc	5.51E+00	-	5.51E+00	nc	5.26E+02	1.00E+00	5.47E-01	-	5.47E-01	nc
Toxaphene		4.18E+01	3.08E+00	3.08E+00	ca	2.77E+00	1.08E-01	1.08E-01	ca	5.54E+01	2.17E+00	2.17E+00	ca	7.40E-01	3.00E-03	1.44E-02	6.65E-04	5.65E-04	ca
1,2,4-Trichlorobenzene	1.03E-01	4.46E+02	-	1.03E-01	sat	3.19E-01	-	1.03E-01	sat	6.38E+00	-	1.03E-01	sat	3.00E-02	7.00E-02	9.05E-02	-	3.00E-02	sol
1,1,1-Trichloroethane	6.67E+02	1.00E+03		6.67E+02	sat	6.61E-01		1.06E-01	mcl	1.32E+01		2.12E+00	mcl	1.33E+03	2.00E-01	1.24E+00		2.00E-01	mcl
1,1,2-Trichloroethane	1.14E+03	2.03E+02	8.10E+00	8.10E+00	ca	2.15E-02	1.20E-03	1.20E-03	ca	4.30E-01	2.39E-02	2.39E-02	ca	4.42E+03	5.00E-03	6.09E-02	3.39E-03	3.39E-03	ca
Trichloroethylene (TCE)	4.04E+02	2.26E+01	2.70E+01	2.26E+01	nc	1.12E-02	1.07E-02	2.12E-03	mcl	2.23E-01	2.15E-01	4.25E-02	mcl	1.10E+03	5.00E-03	2.63E-02	2.53E-02	5.00E-03	mcl
Trichlorofluoromethane	3.87E+04	3.57E+02	-	3.57E+02	nc	1.77E+01	-	1.77E+01	nc	3.55E+02	-	3.55E+02	nc	1.00E+03	-	9.70E-01	-	9.70E-01	nc
2,4,5-Trichlorophenol		4.18E+03		4.18E+03	nc	3.94E+00		3.94E+00	nc	7.89E+01		7.89E+01	nc	1.20E+03		1.16E+00		1.16E+00	nc
2,4,6-Trichlorophenol	-	-	2.58E+02	2.58E+02	ca	-	1.57E-02	1.57E-02	ca	-	3.14E-01	3.14E-01	ca	8.00E+02	-	-	1.63E-02	1.63E-02	ca
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)		4.18E+02		4.18E+02	nc	4.94E-01		4.94E-01	nc	9.88E+00		9.88E+00	nc	2.68E+02		1.33E-01		1.33E-01	nc
1,2,3-Trichloropropane	4.49E+02	1.06E+02	5.88E-01	5.88E-01	ca	9.38E-03	3.30E-05	3.30E-05	ca	1.88E-01	6.61E-04	6.61E-04	ca	1.75E+03	-	2.64E-02	9.30E-05	9.30E-05	ca
1,2,4-Trimethylbenzene	9.05E+01	2.23E+01		2.23E+01	nc	1.72E-02		1.72E-02	nc	3.45E-01		3.45E-01	nc	5.70E+01		1.04E-02		1.04E-02	nc
1,3,5-Trimethylbenzene	7.17E+01	1.93E+01	-	1.93E+01	nc	1.61E-02	-	1.61E-02	nc	3.22E-01	-	3.22E-01	nc	4.82E+01	-	1.04E-02	-	1.04E-02	nc
1,3,5-Trinitrobenzene		1.25E+03		1.25E+03	nc	2.50E-01		2.50E-01	nc	4.99E+00		4.99E+00	nc	3.50E+02		4.49E-01		4.49E-01	nc
Vanadium	-	2.63E+02	-	2.63E+02	nc	1.24E+02	-	1.24E+02	nc	2.48E+03	-	2.63E+02	dc	-	-	1.24E-01	-	1.24E-01	nc
Vinyl acetate	2.29E+03	4.24E+02		4.24E+02	nc	7.35E-02		7.35E-02	nc	1.47E+00		1.47E+00	nc	2.00E+04		3.46E-01		3.46E-01	nc
Vinyl chloride	9.50E+02	3.60E+01	1.28E+00	1.28E+00	ca	1.22E-02	1.48E-04	1.48E-04	ca	2.44E-01	2.97E-03	2.97E-03	ca	2.76E+03	2.00E-03	3.65E-02	4.45E-04	4.45E-04	ca
Xylene (mixed)	7.15E+01	2.13E+02		7.15E+01	sat	8.11E-02		8.11E-02	nc	1.62E+00		1.62E+00	nc	1.75E+02	1.00E+01	1.68E-01		1.68E-01	nc
m-Xylene	8.83E+01	1.64E+02	-	8.83E+01	sat	1.04E-01	-	1.04E-01	nc	2.08E+00	-	2.08E+00	nc	1.61E+02	-	1.68E-01	-	1.68E-01	nc
o-Xylene	1.11E+02	1.64E+02		1.11E+02	sat	1.18E-01		1.18E-01	nc	2.37E+00		2.37E+00	nc	1.78E+02		1.69E-01		1.69E-01	nc
ene	1.44E+02	1.64E+02	-	1.44E+02	sat	1.43E-01	-	1.43E-01	nc	2.86E+00	-	2.86E+00	nc	1.85E+02	-	1.69E-01	-	1.69E-01	nc
		1.25E+04		1.25E+04	nc	2.80E+02		2.80E+02	nc	5.60E+03		5.60E+03	nc			4.50E+00		4.50E+00	nc

Table 1 - Residential Generic Cleanup Numbers (GCNs) for Ohio Hazardous Waste Closures

CONTAMINANT	1 Calculated Soil Saturation Limit (SAT) (mg/kg)	2 Single Chemical Noncancer Direct Contact (mg/kg)	3 Single Chemical Cancer Direct Contact (mg/kg)	4 Single Chemical Cleanup No. GCN Direct Contact Soil (mg/kg)	5 Single Chemical Noncancer Protective Of Ground Water (1DAF)(mg/kg)	6 Single Chemical Cancer Protective Of Ground Water (1DAF)(mg/kg)	7 Single Chemical Cleanup No. GCN Protective Of Ground Water (1 DAF)(mg/kg)	8 Single Chemical Noncancer Protective Of Ground Water (20 DAF)(mg/kg)	9 Single Chemical Cancer Protective Of Ground Water (20 DAF)(mg/kg)	10 Single Chemical Cleanup No. GCN Protective Of Ground Water (20 DAF)(mg/kg)	11 Solubility (mg/L)	12 Maximum Contaminant Level MCL (mg/l)	13 Single Chemical Noncancer Ground Water Concentration (mg/l)	14 Single Chemical Cancer Ground Water Concentration (mg/l)	15 Single Chemical Cleanup No. Ground Water Concentration (mg/l)

** Cadmium- As suggested by IRIS, RfDo=1.0E-03 and OAF=0.03 for soil (food) were used in calculations.

"-" This value is not applicable or is not appropriate for this column.

Footnotes:

1 - Calculated soil saturation limit (using method from Soil Screening Guidance: Technical Background Document, U.S. EPA, 1996, equation #9).

2 - Risk-based standard for noncarcinogens for soil, based on a child resident (considers ingestion of soil, inhalation of volatiles and particulates from soil, and dermal contact with soil.)

3 - Risk-based standard for carcinogens for soil, based on an age-adjusted resident (adult + child) (considers ingestion of soil, inhalation of volatiles and particulates from soil, and dermal contact with soil.)

4 - Single chemical cleanup number for ingestion of soil, inhalation of volatiles and particulates for soil, and dermal contact with soil (calculated soil saturation limit is the default value when less than the carcinogen and noncarcinogen standards.)

5 - Risk-based standard for noncarcinogens for soil protective of ground water, based on a child resident (considers ingestion of soil and ground water, inhalation of volatiles and particulates from soil and ground water, and dermal contact with soil and ground water, with a dilution-attenuation factor of one (1 DAF). (See discussion on DAFs in section 2.5.5 of Soil Screening Guidance: Technical Background Document, U.S. EPA, 1996).

6 - Risk-based standard for carcinogens for soil protective of ground water, based on an age-adjusted resident (adult + child) (considers ingestion of soil and ground water, inhalation of volatiles and particulates from soil and ground water, and dermal contact with soil and ground water, with a dilution-attenuation factor of one (1 DAF). (See discussion on DAFs in section 2.5.5 of Soil Screening Guidance: Technical Background Document, U.S. EPA, 1996).

* - Single chemical cleanup number for ingestion of soil and ground water, inhalation of volatiles and particulates from soil and ground water, and dermal contact with soil and ground water (the direct contact with soil standard from column 4 is the default value when less than the 1 DAF carcinogenic and non-carcinogenic standards.)

- Risk-based standard for noncarcinogens for soil protective of ground water, based on a child resident (considers ingestion of soil and ground water, inhalation of volatiles and particulates from soil and ground water, and dermal contact with soil and ground water, with a dilution-attenuation factor of twenty (20 DAF). (See discussion on DAFs in section 2.5.5 of Soil Screening Guidance: Technical Background Document, U.S. EPA, 1996).

9 - Risk-based standard for carcinogens for soil protective of ground water, based on an age-adjusted resident (adult + child) (considers ingestion of soil and ground water, inhalation of volatiles and particulates from soil and ground water, and dermal contact with soil and ground water, with a dilution-attenuation factor of twenty (20 DAF). (See discussion on DAFs in section 2.5.5 of Soil Screening Guidance: Technical Background Document, U.S. EPA, 1996).

10 - Single chemical cleanup number for ingestion of soil and ground water, inhalation of volatiles and particulates from soil and ground water, and dermal contact with soil and ground water (the direct contact with soil standard from column 4 is the default value when less than the 20 DAF carcinogenic and non-carcinogenic standards.)

11- Sources include: Soil Screening Guidance: Technical Background Document, Table 36 (U.S. EPA, 1996), Hazardous Substances Data Base, Syracuse Research Corporation's Environmental Science Data Base, Physical Properties of Organic Chemicals (Howard and Meylan), CRC Handbook of Chemistry and Physics, and U.S. EPA Region IX table of physical properties.

12 - Maximum contaminant levels (MCLs) based on federal primary drinking water standards (OAC 3745-81-11 and 3745-81-12).

13 - Risk-based standard for noncarcinogens for ground water, based on a child resident (considers ingestion of ground water, inhalation of volatiles from ground water while showering, and dermal contact with ground water while showering.)

14 - Risk-based standard for carcinogens for ground water, based on an age-adjusted resident (adult + child) (considers ingestion of ground water, inhalation of volatiles from ground water while showering, and dermal contact with ground water while showering.)

15 - Single chemical cleanup number for ingestion of ground water, inhalation of volatiles from ground water while showering, and dermal contact with ground water while showering. Maximum Contaminant Level is the default standard when less than the risk-based standard.

Campbell's Soup

OhioEPA
State of Ohio Environmental Protection Agency

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OHIO E.P.A.
N.W.D.O.

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

August 25, 2003

Osman M. Aly
Campbell Soup Company
1 Campbell Soup Company
Camden, New Jersey 08103

Dear Mr. Aly:

On August 22, 2003, Ohio EPA conducted a review of the financial assurance and liability coverage documentation on file for the Campbell Soup Company. I evaluated the facility for compliance with closure/post-closure cost estimate, closure/post-closure care and liability coverage requirements as set forth in Ohio Administrative Code (OAC) rules 3745-66-42 through 3745-66-47 and the August 2001 Amended Director's Final Findings and Orders (Orders).

Orders were issued on October 18, 2000, and amended on August 22,2001, for the Campbell Soup Company. The Order, Section V.1.b, requires that Campbell Soup establish financial assurance for closure and liability coverage.

Documentation submitted July 23 and August 2, 2002, to demonstrate financial assurance for closure/post-closure care and liability requirements included a July 18, 2002 Letter of Credit (LOC) No. P-226892, and July 15, 2002 standby trust agreement for closure care issued by JP Morgan Chase Bank and a July 15, 2002 LOC No. P-226893, and a July 18, 2002 standby trust agreement for liability coverage respectively.

General concerns noted in a letter to you on October 4, 2002, indicated the wording of the LOC and Standby Trust Agreement were deficient and needed to be corrected. Documentation received November 1, 2002, from you via a telefax met the accompanying letter requirement as required by OAC rule 3745-66-43(C)(4) .

Upon review of the above documentation, **Campbell Soup is in violation of OAC rules:**

- **3745-66-42, because the cost estimate has not been updated for inflation.**
- **3745-66-43, because the financial assurance LOC mechanism has not increased to reflect an inflationary increase, and the loc and standby trust agreement has not been corrected to reflect the correct wording.**
- **3745-66-47, because the LOC and Standby Trust Agreement for third party**

- **3745-66-47, because the LOC and Standby Trust Agreement for third party liability coverage has not been corrected to reflect the correct wording.**

To demonstrate compliance with the above violations, Campbell Soup must annually submit updated cost estimates pursuant to OAC rule 3745-66-42 (B), and update the LOC to reflect a current cost estimate pursuant to OAC rule 3745-66-43(D)2 which states the LOC shall be issued for at least the current closure cost estimate. In addition, the LOC and standby trust agreement wording must be identical to wording specified in paragraph (A) and (D) of 3745-55-51 pursuant to OAC rule 3745-66-43(A)2 and 3745-66-43 (D)2. These deficiencies must be corrected immediately. Submit this documentation to me immediately.

If you have any questions you may contact me at (614)644-2951.

Sincerely,

Tina Jennings

Tina Jennings
Compliance Assurance Section
Division of Hazardous Waste Management

I:\USERS\TJENNING\TJ04\campbell_soup.wpd

cc: John Schierberl, Supervisor, CAS, DHWM
Michael Terpinski/Kara Reynolds, DHWM, NWDO
Tammy McConnell, RIS, DHWM

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

August 8, 2003

Via Airborne Express

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OHIO E.P.A.
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Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
ATTN: Pamela Allen
Regulatory and Information Services Section
122 South Front Street
Columbus, Ohio 43215

And

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
Attn: Ms. Kara Reynolds
Division of Hazardous Waste Management
347 Dunbridge Road
Bowling Green, Ohio 43402

This document can be found in the NWDO DHWM Facility Document Library

RE: Campbell Soup Company, Napoleon Site
Addendum to RCRA Site Closure Certification Report

Dear Ms. Reynolds:

Enclosed please find signed Certification Statement from Campbell Soup Company, as required by Ohio Administrative Code (OAC) 3745-50-42(D). The Certification is an Addendum to the RCRA Site Closure Certification Report that was submitted to your office on July 3, 2003.

Please give me a call at (856) 853-1876 if any additional information is needed.

Sincerely,

CAMPBELL SOUP COMPANY

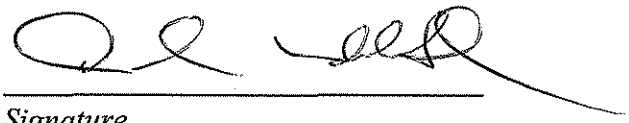
Osman M. Aly, Ph.D.
Consultant

cc: Faith Greenfield, Esq.
R. T. Shober

CERTIFICATION OF CAMPBELL SOUP COMPANY

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

CAMPBELL SOUP COMPANY



Signature
Carlos del Sol -KMR 8-18-03

Vice President – Global Engineering Systems
Title

August 8, 2003
Date

From: Michael Terpinski
To: Kara Reynolds
Date: 8/20/03 12:48PM
Subject: Re: CSC

hmm. these aren't super common lab contaminants, & some of them could be related to activities at the pit. did anything show up from the water samples they took from the mound(the ones where they were trying to see if GW was a concern)? I don't recognize all the names, but would suggest we have them include the 4 chems that were found 3 or 4 times & the one above the GCN.

>>> Kara Reynolds 08/20/03 12:17PM >>>
I took this straight from the tables that they recently sent me. I threw in the 3's and 4's because with the number of samples that they took, 4 would be on the border line (4.5% frequency, a good number is ususally 5%) for being screened out. So, let me know what you think I should do. Most of these hits were low hits. But then again, some of them were pretty high. The one with the asterisk was above the unadjusted GCN so it technically can't be screened out. They are all found in samples that were not excavated and should be included in the RA.

1,1Dichloropropene-1
1,2-Dichloroethane-1
1,2-Dibromo-3-chloropropane-1
Hexachlorobutadiene-2
trans-1,2-Dichloroethene-2
Bromobenzene-2
1,1,2,2-Tetrachloroethane-2
1,2,3-Trichloropropane-2***
Acenaphthene-3
1,1-Dichloroethene-4
Trichlorofluoromenthane-4
Chlorobenzene-4

1,1 DCP
12 DCE →
12 DB3CP
HCB
T12DCE →
BRB
1122TCE →
} include in RA b/c of breakdown products

123TCP
AN
11DCE
TCFM
CB
} include b/c of # of samples w/hits

Unadjusted GCN (mg/kg)
1,1,22-Tetrachloroethane 27.8
Bromobenzene - None
trans-1,2-Dichloroethene None
Hexachlorobutadiene - None
1,2-Dibromo-3chloropropane None
1,1 Dichloropropene - None
1,2 Dichloroethane 3.4

From: <osman_aly@campbellsoup.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 8/18/03 11:24AM
Subject: Re: Closure Certification

Kara:

The name of the person who signed the statement is: Carlos del Sol. He is the vice pesident for Engineering for Campbell Soup Company worldwide. Global Engineering is the Engineering Department for Camopbell Soup Company.

Please let me know if you have zany other questions.

Thanks,

OSMAN M ALY

Kara.Reynolds@epa.state.oh.us 08/12/2003 03:03 PM

To: Osman Aly/US/CAMPSOUP/CSC@CSC
cc: Michael.Terpinski@epa.state.oh.us
Subject: Closure Certification

Dr. Aly,

I received the certification statement from Campbell Soup Company. However, I still have a few questions. I am unable to read the signature on the statement and I was wondering if you could give me the name of the person that actually signed the document. Also, I need to know if Global Engineering Systems is a part of Campbell Soup Company or not.

Please e-mail your response at your earliest convenience.

Thank you,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

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This e-mail and any files transmitted with it may contain confidential information and is intended solely for use by the individual to whom it is addressed. If you received this e-mail in error, please notify the sender, do not disclose its contents to others and delete it from your system.

****

CC: <Michael.Terpinski@epa.state.oh.us>

From: Michael Terpinski
To: Kara Reynolds
Date: 8/14/03 3:17PM
Subject: Re: One more for the road.

I'd use 5/15 as the last day of field activity. I seem to remember knowing they might go a bit over & saying "just get it off-site as soon as ppossible b/c we won't have time to process an extension approval by the time the stuff is gone." so, I wouldn't cite it as a comment or violation.

>>> Kara Reynolds 08/14/03 02:50PM >>>
So they had a modification for an extension for closure to May 1. they had all the backfill and regrading done in April. They didn't get all the soil and debris shipped off-site until May 15. They are calling May 15 their last day of field activities. I know that Getz and I talked to Jeremy Carroll about this while you were gone. I don't think it was about the actual time they went over closure, but the date that should be used for the certification report (60 days after). So do I call them on it or not? And if I do, is it a comment or a violation b/c they are in enforcement already?

From: Michael Terpinski
To: Kara Reynolds
Date: 8/8/03 1:22PM
Subject: Re: csc

yes, that's OK. it just has to be a "responsible corporate officer." details on what constitutes a responsible corporate officer are found in OAC 3745-50-42(A) if you want to know what else might count.

>>> Kara Reynolds 08/08/03 11:25AM >>>
Dr. Aly called and asked if the Vice President could sign as the owner/operator. I said ok but wanted to double check.

From: Kara Reynolds
To: osman_aly@campbellsoup.com
Date: 8/6/03 4:32PM
Subject: Closure Certification

Dr. Aly,

Good Afternoon. I wanted to make sure that you received my last email that included the Ohio Administrative Code 3745-50-42(D) paragraph that I needed you to sign and send to me in addendum to the Campbell Soup Company Closure Certification for the Former Holding Pit.

If you did not receive this, please let me know. This paragraph and your signature are needed before a decision can be made on this document.

If you have any questions please contact me at your earliest convenience.

Thank you,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

GeoTrans, Inc.
A TETRA TECH COMPANY

710 Avis Drive
Ann Arbor, MI 48108

www.geotransinc.com

734-213-2204 FAX 734-213-5008

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AUG 06 2003
OHIO E.P.A.
N.W.D.O.

August 4, 2003

Ms. Kara Reynolds
Ohio Environmental Protection Agency – NWDO
347 North Dunbridge Rd.
Bowling Green, Ohio 43402

This document can be found in the NWDO DHWM Facility Document Library

Re: Additional Information for Certification Report
Former Holding Pit, Campbell Soup, Napoleon, Ohio

Dear Ms. Reynolds:

GeoTrans, Inc. (GeoTrans) has prepared this document to provide the Ohio Environmental Protection Agency (Ohio EPA) with additional information to aid in your review of the *RCRA Site Closure Certification Report* (Certification Report) dated June 27, 2003, submitted by Campbell Soup Company (Campbell) on July 3, 2003. This letter addresses the requests outlined in your e-mail correspondence, dated July 24, 2003.

Section 5.2 of the Certification Report states "Due to successful treatment and remediation of the impacted soils at the site, 26 of the original chemicals of concern were eliminated during the remediation of the site". The 26 parameters that were detected in the investigation but were not detected during remediation activities are shown in the attached tables. Table 1 identifies the boring locations and sample depths where these 26 parameters were detected in the May 2001 investigation. The maximum and minimum concentrations of the 26 parameters and the number of detections during the investigation are shown in Table 2. We have made the following observations regarding these 26 parameters detected during the investigation:

- 25 out of 26 of the parameters are volatile organic compounds (VOCs), which were successfully treated by the thermal desorption unit.

- Acenaphthene was the only semi-volatile organic compound (SVOC) eliminated following remediation. Acenaphthene was detected in 3 locations in the investigation (PB-01-32, PB-01-34, and PB-01-41). The location and depths of these samples are clearly within the limits of the excavation, and were removed during remediation activities. PB-01-32 and PB-01-34 were disposed of off-site at the Williams County Landfill during remediation activities. PB-01-41 was excavated during remediation activities and treated by the thermal desorption unit.

- None of the maximum concentration of the 26 parameters exceeded the Single Chemical Generic Cleanup Numbers (GCNs) (Table 1 of Appendix D, Closure Plan Review Guidance for RCRA Facilities, Part II, Ohio EPA, March 1999).

Table 3 illustrates that these 26 parameters were not detected in the clean and intermediate soil stockpiles samples collected during remediation activities.

Tables 4 and 5 outline the detections of these 26 parameters in the verification of remediation samples (the treated soil stockpiles) and the confirmation of remediation samples (excavation floor and sidewall).

The laboratory used during the investigation included additional analytes, which are not typically analyzed by EPA 8260B, as listed below:

- 1,1-dichloropropene
- bromobenzene
- 2-chlorotoluene
- 4-chlorotoluene
- tert-butylbenzene
- sec-butylbenzene
- 1,2-dibromo-3-chloropropane
- hexachlorobutadiene

During the remediation activities another laboratory was used to improve turn around times. Therefore, these eight parameters were not analyzed in 11 of 53 samples used to the close the site (8 verification of remediation samples, 2 sidewall samples, and 1 floor sample). Although these parameters were not analyzed in all closure samples, the closure strategy was not revised for the following reasons:

- Non-detect results for the above listed 8 VOCs were reported for 42 of 53 samples used to close the site.

- The thermal desorption unit reached in excess of 550 deg. F throughout the project. Laboratory analysis confirmed that VOCs were destroyed during treatment. Therefore, these additional 8 VOCs, if present, would have been destroyed during treatment.

- When these eight parameters were detected in the investigation phase, they were detected 70 times with J-values, leaving only 7 detections above the laboratory reporting limit. All detections above the laboratory reporting limit were for two parameters, sec-butylbenzene and tert-butylbenzene. All detections were below the GCNs.

- The borings in which sec-butylbenzene and tert-butylbenzene were detected, above the laboratory reporting limit (PB-01, PB-01-32, PB-01-34, and PB-01-45), were within the limits of the excavation. This soil was removed during remediation activities and disposed of off-site at the Williams County Landfill.

- The 2 sidewall samples and the floor sample for which the 8 parameters were not analyzed were non-detect for all other VOCs.

In summary, the 26 parameters shown on the attached tables were excluded from the residual risk calculations used to close the site because they were successfully remediated by the thermal desorption unit or by off-site disposal.

Please call us at (734) 213-4068 with any questions or concerns.

Sincerely,

Tesha Humphriss
Project Engineer

Michael S. Kovacich
Senior Hydrogeologist

copy: Dr. Aly, Campbell
Mr. Michael Maringer, Campbell

p:/projects/campbell soup/documents/cert report additional info.doc

From: Erik Hagen
To: Kara Reynolds
Date: 8/1/03 10:05AM
Subject: Re: Statistics

Kara,

No, you're right. There are times that a normality test is not needed. Your case, Campbells, looks like one to me. However, there are also times when you need to have an ideal of the data distribution. For example, when comparing an on-site data distribution to a background distribution using a T-test. I guess the real evaluation is whether 1) you need to apply statistics and 2) is a normal distribution an underlying assumption in that statistical test.

Let me know if you'd like to talk about this issue further. It is important. In addition, let me know if you have anymore questions on statsitics; I maybe can't answer them, but if I can't, Dan Lukovic probably can.

Regards,
Erik

>>> Kara Reynolds 08/01/03 09:25AM >>>
Thanks Erik,

That really cleared up some questions that I had about the CV. I still am a little confused though. When it comes to sampling, should a company always use a normality test, no matter what they are planning to do with the data or why they are sampling, just to find the distribution? I guess I was under the impression that a normality test was only needed when another statistic was used, such as the 95%UCL.

My thinking, and it is very possible that I am wrong, is that there is no need for a normality test for this data because it is only part of what is being used in the calculation of the 95%UCL (and in turn the risk assessment). The data set being used for the 95%UCL (which includes this data) should have a normality test. I guess I figure that doing a normality test for only part of the data set used in the 95%UCL isn't a good representation and in my mind I wouldn't bother to do it unless I used the entire data set. Am I making sense?

Could you clear this up? Should I always make the company do a normality test?

Thanks for your help,
Kara

From: Erik Hagen
To: Kara Reynolds
Date: 8/1/03 8:54AM
Subject: Re: Statistics

Kara,

The short answer to your question is: The coefficent of variation is not an adequate measurement for normality.

The reason is that there is no strict definition of what CV represents a normal population or when it does not. In addition, CVs are usually not expressed with confidence intervals, it is hard to judge whether sampling is sufficient to support a determination of normality from a CV without a measure of its variation. Finally, I've never seen a discussion on how to factor in non-dected data and what bias non-detected data may impart to a CV and its use for a normality determination.

For these reasons, DHWM uses standard and accepted measures of normality such as the Shapiro-Wilks test. To calculate a 95% UCL, the consultant would have to verify the underlying data distribution (ie. lognormal 95% UCL or normal 95% UCL). We really do need to have a standard measure to determine that the calculation method of the 95% UCL is using the correct data distribution.

The CV is useful. It does give you a feel about the heterogeneity or dispersion of a dataset. In addition, U.S. EPA's Soil Screening Guidance (attached, see pages 12 through 20.) uses it to calculate the appropriate number of composite samples for determination of soil screening levels (SSL). However, this approach is not valid for RCRA closure (ie. we're past the screening level stage and we don't determine risk levels as the CERCLA program). I mention this because Campbells may be trying to use a variant of this approach.

Let me know if you need any additional information. I'll be here until 3:30 today.

Regards,
Erik

>>> Kara Reynolds 08/01/03 07:57AM >>>
Hello Erik,

I don't believe we have met, but I have heard a lot of good things about you. So I hope you can help me. I am one of the new risk assessors up in NWDO. I have been here almost 6 months and am looking forward to being off probation.

Right now I am looking at a sight that James Mosely had before he left. It was supposed to be a "simple certification" and has turned out to be anything but that.

I noticed that Mylynda CCd you on my email so the following paragraph is pretty much a repeat with a few minor changes. Mylynda has been working with me on some things for this sight so she has an idea of what's going on. If I'm not making things clear, please let me know.

I am looking at the Campbell Soup Company (CSC) Certification. They have taken 19 samples (after they excavated) from the floor and sidewalls of this holding pit. They then ran Coefficient of Variation tests on each COC found in these 19 samples. They say this test is to "ensure a representative set of samples is obtained." 1. Is this needed if the samples are only being used to show the concentrations left in the soil after excavation ? These samples are used in the risk assessment but along with approximately 50 other

samples. So I am under the impression that they did this to try and show the samples were normal even though it may not be needed.

2. I was told that we don't accept the Coefficient of Variation to show normality anymore. That Shapiro-Wilks and others of the like should be used. Is this true?

Please let me know if you need any other information.

Thanks,

Kara

CC: Mylynda Shaskus

From: Mylynda Shaskus
To: Reynolds, Kara
Date: 8/1/03 7:13AM
Subject: Re: Statistics

Kara,

Erik would be the best person to answer the questions in your first paragraph. I don't know enough about confirmation sampling or statistics to address those questions with certainty.

The last paragraph in your email is correct. Their approach is fine, and they should do a normality test on data sets where they are calculating a 95% UCL.

Mylynda

M

>>> Kara Reynolds 07/31/03 04:36PM >>>
Mylynda,

Hope you day is going well. I have a few questions about the statistics needed during a Closure/RA.

I am looking at the Campbell Soup Company (CSC) Certification. They have taken 19 samples (after they excavated) from the floor and sidewalls of this holding pit. They then ran Coefficient of Variation tests on each COC found in these 19 samples. They say this test is to "ensure a representative set of samples is obtained." 1. Is this needed if the samples are used to show the concentrations left in the soil after excavation ? In the end they are using GCN's with a different set of data. So I am under the impression that they did this to try and show the samples were normal even though it is not needed. But in the end, they use a data set for the risk that, although includes these samples, uses a larger data set. 2. I was told that we don't accept the Coefficient of Variation to show normality anymore. That Shapiro-Wilks and others of the like should be used. Is this true?

For the RA, they are taking the maximum concentration or the 95% UCL and dividing it by the GCN and adding them together to show they passed (or didn't pass) risk. They are using the 95%UCL's for 8 of the COCs and the max concentration for the rest. They did not use a normality test for any of the COCs in the set of samples used in the RA. 3. They need to show normality for the COCs that they use a 95% UCL for, Right? 4. But if they are using the max concentration, they don't need to show normality, Right?

I guess that is it. Let me know what you think.
Thanks in advance for all the help!

Kara

CC: Hagen, Erik

INTER-OFFICE COMMUNICATION

TO: Kara Reynolds, Remediation Group, DHWM-NWDO

FROM: John Weaver through Geoff Leking, Geologist 4, DDAGW-NWDO

DATE: August 1, 2003

SUBJECT: Campbell Soup Company, Henry County, OHD 005 419 171.

RCRA Site Closure Certification Report - Former Holding Pit, document dated June 27, 2003; GeoTrans, Inc. Received by Ohio EPA (NWDO) on July 7, 2003.

Introduction:

The Division of Hazardous Waste Management (DHWM) has requested that the Division of Drinking and Ground Waters (DDAGW) perform a review of the above referenced document.

The Campbell Soup Company (Campbells) is located in north-central Henry County at 1273 State Route 110, Napoleon, Ohio. Campbells occupies approximately 63 acres at the above address and produces, packages, and distributes food goods.

Campbells produced containers (cans) for food goods in an onsite manufacturing facility until July 1998. The steel cans were coated with a two-phase material to act as a rust inhibitor and to increase the durability of the cans. Excess and waste coating material, existing in a semi-solid state, and also spent solvents were periodically dumped into two onsite holding pits at Campbells from 1981 to 1983. These holding pits were constructed on top of an elevated area from onsite dirt obtained from excavation activities performed throughout the Campbells site. The holding pits were reportedly lined with natural clay and compacted prior to emplacing the wastes. The total dimensions of the holding pits were approximately 20 feet by 35 feet by 2-3 feet deep. Wastes contained in the pits were excavated in 1983, mixed with sand, and disposed of offsite at the Evergreen Landfill. Constituents of concern (COCs) associated with the holding pits are volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs).

Ohio EPA identified the former holding pits as an unpermitted treatment, storage, and disposal unit subject to RCRA closure and was subsequently issued a Notice of Violation letter on May 16, 2000. Director's Final Findings and Orders were issued to Campbells on October 18, 2000 and again on July 25, 2001 and required the facility in part, to close the former holding pits in accordance with OAC Rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20. Campbells subsequently submitted a RCRA

closure plan for the former holding pits on October 31, 2001 and May 28, 2002. The closure plan was ultimately approved with modifications via letter to Campbells dated August 1, 2002. As part of the approved closure plan, Campbells was directed to install three monitoring wells around the periphery of the former holding pits to determine the extent of any impacts to the natural shallow unconsolidated soil and ground water zones. Monitoring well installation took place on August 26 and 27, 2002 and ground water sampling was conducted on September 9, 2002. The certification report dated June 27, 2003 for the former holding pit is the subject of this review.

Compliance Issues:

There are no compliance issues associated with this review.

Conclusions:

1. The Campbell Soup Company has adequately demonstrated that the mound/former holding pit area has not impacted the shallow saturated subsurface in the natural unconsolidated zone for the purpose of demonstrating clean closure of the ground water pathway at the RCRA unit per OAC Rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20.

Comments:

1. The following comment is provided for historical reference.

   The Campbell Soup Company (Campbells) was directed via an Ohio EPA Notice of Deficiency (NOD) dated April 23, 2002 and a closure plan approval letter dated August 1, 2002 to install a ground water monitoring network around the periphery of the mound/former holding pit area [RCRA unit]. The installation of three shallow monitoring wells was deemed warranted to adequately characterize any affects the mound/former holding pit area may have had on shallow ground water within the natural unconsolidated zone in support of closure of the RCRA unit. Campbell's contracted consultant, GeoTrans, Inc. (GeoTrans), installed monitoring wells MW-1, MW-2, and MW-3 with Ohio EPA oversight on August 26-27, 2002 at agreed upon locations and per Ohio EPA specifications as detailed in a May 24, 2002 [Revised] RCRA Site Closure Plan.

   GeoTrans collected water level measurements from wells MW-1, MW-2, and MW-3 on August 28, 2002 following installation and observed that all three wells had limited amounts of ground water. As such, monitoring well development activities consisted of bailing well MW-1 dry while wells MW-2 and MW-3 were

not developed and simply allowed to recharge further. All three monitoring wells were sampled by GeoTrans on September 9, 2002 for analysis of volatile organic compounds (VOCs) per Method 8260B and semi-volatile organic compounds (SVOCs) per Method 8270. Analytical results and a complete discussion of the monitoring well installation effort were submitted to Ohio EPA by GeoTrans in a September 25, 2002 document entitled, 'Shallow Groundwater Report - Former Holding Pit.' The aforementioned document is included in Appendix A of the closure certification report. Per Ohio EPA request, GeoTrans submitted a quality assurance/quality control (QA/QC) report from their contracted laboratory (Brighton Analytical, Inc.) on September 30, 2002. The QA/QC report indicated that the ground water analytical results from wells MW-1, MW-2, and MW-3 were representative of shallow ground water quality beneath and adjacent to the mound/former holding pit area. Ohio EPA reviewed the documents referenced above and deemed them adequate to support closure of the mound/former holding pit area per OAC Rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20.

2. As noted in the April 23, 2003 NOD and the August 1, 2002 closure plan approval letter, if no organic constituents of concern (COCs) are detected in the shallow monitoring well network above corresponding practical quantitation limits (PQLs) [or an alternate limit acceptable to the director] which provide the lowest limit of detection for the corresponding analytical method as specified in USEPA SW-846 Methods, then it can be concluded that no COCs have leached from the mound/former holding pit area and impacted shallow ground water in the natural unconsolidated zone for the purpose of demonstrating clean closure of the unit.

   Based upon a review of the closure certification report, there were no detections of any VOCs or SVOCs above reporting limits at wells MW-1, MW-2, and MW-3 for the September 9, 2002 sampling event. All reporting limits were below corresponding maximum contaminant levels (MCLs). As such, Ohio EPA concludes that no COCs have leached from the mound/former holding pit area and impacted shallow ground water in the natural unconsolidated zone for the purpose of demonstrating clean closure of the ground pathway at the RCRA unit.

For questions, please contact John Weaver, Division of Drinking and Ground Waters, Northwest District Office, Ohio EPA, at (419) 373-3098. Any written correspondence should be sent to Kara Reynolds, Division of Hazardous Waste Management, Northwest District Office, Ohio EPA, 347 North Dunbridge Road, Bowling Green, OH, 43402.

ec: Michael Terpinski, DHWM-NWDO
Kara Reynolds, DHWM-NWDO
pc: Jeff Patzke, DDAGW-CO
DDAGW-NWDO File

Work ID: 5000003397

g:\dhwm\camp_pit\certrpt.wpd

From: Kara Reynolds
To: osman_aly@campbellsoup.com
Date: 7/28/03 11:32AM
Subject: Closure Certification

Dr. Aly,

As per our phone conversation earlier this morning, the Ohio EPA Closure Plan Review Guidance requires that the owner/operator must sign the certification statement located in Ohio Administrative Code (OAC) 3745-50-42(D). Please send the exact wording found in OAC 3745-50-42(D) with your signature, title, etc. in addendum form to the address listed below.

If you have any other questions, please contact me at your earliest convenience.

OAC 3745-50-42(D)
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Thanks,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: Terpinski, Michael

From: Amber Hicks
To: Kara Reynolds
Date: 7/25/2003 10:17 AM
Subject: Fwd: Re: information
Attachments: Re: information

From: Mylynda Shaskus
To: Hicks, Amber; Moseley, James
Date: 2/22/2002 2:48 PM
Subject: Re: information
Attachments: CampbellsMCAGCNs.xls; CampbellGCNsCS.xls; CampbellIndGCNs.xls; CampbellGCNs
.xls; VaporIntrusion10_19_01.wpd

Amber & James,

Here are the spreadsheets I used for Campbell's. CampbellsMCAGCNs are the multiple chemical adjusted residential GCNs that take into account soil sat levels. CampbellGCNsCS is the spreadsheet I sent to Craig Savage (the consultant who called for help). CampbellIndGCNs is the spreadsheet I used to calculate the industrial GCNs. CampbellGCNs is the spreadsheet I used to calculate the residential GCNs (the sheet is displaying only from cell AU on, just pull out the rest of the cells to see the calculations).

This is how the help went. Craig asked me to generate GCNs for the chemicals at the unit for which there aren't GCNs in Table 1 of the CPRG. I did. Then he asked me what the numbers would be once they are multiple chemical adjusted. So I sent him that too. Then he asked me what the difference would be for industrial numbers. So I told him that (I don't think I sent him the spreadsheet). I also cautioned him that industrial numbers would require a deed restriction that NWDO may or may not approve.

Let me know if you need anything else.

Mylynda

>>> Amber Hicks 02/22/02 02:25PM >>>
Hi Mylynda
I have a guestion for you. Did you work on developing risk based concentrations for Campbell's ?
I remember you asking me if I had directed a facility to talk with you about developing numbers, but I wasn't sure if it was Campbell's.
I hadn't directed them at that time, but now James Moseley is reviewing their closure plan.
If you did work on Campbell's could you email me your spreadsheets on your calculations of these numbers when you get a chance ? James would like to understand how these kind of numbers are developed - specifically the Campbell's numbers to better understand/review their plan.
We would both appreciate it.
Also, could you email your vapor intrusion paper that you developed for the CPRG supplement ?
Thanks for all of your help as always.
Amber

COCs	Direct Contact Soil Standard, Single Chemical (mg/kg)	Basis	Direct Contact Soil Standard, Multiple Chemical Adjusted (mg/kg)	Basis	NC GCN	CA GCN	SAT	MCA NC	MCA CA
Chloromethane (methyl chloride)	3.66E+01	nc	1.18E+00	nc	3.66E+01	na	1.09E+03	1.18E+00	na
Bromomethane	3.77E+00	nc	1.22E-01	nc	3.77E+00	na	3.07E+03	1.22E-01	na
Methylene chloride	8.50E+01	ca	7.73E+00	ca	1.63E+03	8.50E+01	2.28E+03	5.26E+01	7.73E+00
Chloroform	2.41E+00	ca	2.19E-01	ca	4.16E+01	2.41E+00	2.53E+03	1.34E+00	2.19E-01
Benzene	6.85E+00	nc	2.21E-01	nc	6.85E+00	6.87E+00	9.58E+02	2.21E-01	6.25E-01
Trichloroethene	2.24E+01	nc	7.23E-01	nc	2.24E+01	2.70E+01	9.24E+02	7.23E-01	2.45E+00
Toluene	5.74E+02	nc	1.85E+01	nc	5.74E+02	na	8.80E+02	1.85E+01	na
Ethylbenzene	2.25E+02	sat	4.42E+01	nc	1.37E+03	na	2.25E+02	4.42E+01	na
Total xylenes	3.16E+02	sat	4.74E+01	nc	1.47E+03	na	3.16E+02	4.74E+01	na
Styrene	6.83E+02	sat	1.29E+02	nc	3.99E+03	na	6.83E+02	1.29E+02	na
Isopropylbenzene (cumene)	8.55E+02	sat	5.13E+01	nc	1.59E+03	na	8.55E+02	5.13E+01	na
1,2,3-Trichloropropane	6.33E-01	ca	5.75E-02	ca	3.27E+02	6.33E-01	9.88E+02	1.05E+01	5.75E-02
n-Propylbenzene	7.20E+01	sat	1.76E+01	nc	5.45E+02	na	7.20E+01	1.76E+01	na
1,3,5-Trimethylbenzene	1.94E+01	nc	6.26E-01	nc	1.94E+01	na	1.99E+02	6.26E-01	na
tert-Butylbenzene	3.88E+02	sat	1.76E+01	nc	5.45E+02	na	3.88E+02	1.76E+01	na
1,2,4-Trimethylbenzene	2.23E+01	nc	7.19E-01	nc	2.23E+01	na	2.55E+02	7.19E-01	na
sec-Butylbenzene	2.36E+02	sat	1.76E+01	nc	5.45E+02	na	2.36E+02	1.76E+01	na
p-Isopropyltoluene	5.73E+02	sat	1.85E+01	nc	5.73E+02	na	5.73E+02	1.85E+01	na
n-Butylbenzene	2.36E+02	sat	1.76E+01	nc	5.45E+02	na	2.36E+02	1.76E+01	na
1,2,4-Trichlorobenzene	1.05E+02	nc	3.39E+00	nc	1.05E+02	na	3.02E+03	3.39E+00	na
Naphthalene	5.46E+01	nc	1.76E+00	nc	5.46E+01	na	2.43E+02	1.76E+00	na
2-Methylnaphthalene	5.46E+01	nc	1.76E+00	nc	5.46E+01	na	1.13E+04	1.76E+00	na
Methyl 4,-2-Propanone (MIBK)	7.28E+02	nc	2.35E+01	nc	7.28E+02	na	1.72E+04	2.35E+01	na
Butanone 2- (MEK)	6.60E+03	nc	2.13E+02	nc	6.60E+03	na	3.41E+04	2.13E+02	na
Acenaphthene	1.08E+02	sat	7.06E+01	nc	2.19E+03	na	1.08E+02	7.06E+01	na
Fluorene	9.03E+01	sat	4.90E+01	nc	1.52E+03	na	9.03E+01	4.90E+01	na
Phenanthrene	1.58E+02	sat	1.58E+02	sat	1.21E+04	na	1.58E+02	3.90E+02	na
Anthracene	5.67E+00	sat	5.67E+00	sat	1.21E+04	na	5.67E+00	3.90E+02	na
Fluoranthene	1.65E+03	nc	5.32E+01	nc	1.65E+03	na	na	5.32E+01	na
Pyrene	9.96E+01	sat	4.84E+01	nc	1.50E+03	na	9.96E+01	4.84E+01	na
Benzo (a) Anthracene	4.63E+00	ca	4.21E-01	ca	na	4.63E+00	na	na	4.21E-01
Chrysene	7.18E+00	sat	7.18E+00	sat	na	4.57E+02	7.18E+00	na	4.15E+01
Benzo (b)Fluoranthene	4.60E+00	ca	4.18E-01	ca	na	4.60E+00	na	na	4.18E-01
Benzo (k) Fluoranthene	4.65E+01	ca	4.23E+00	ca	na	4.65E+01	na	na	4.23E+00
Benzo (a) Pyrene	4.65E-01	ca	4.23E-02	ca	na	4.65E-01	na	na	4.23E-02
Indeno (1,2,3-cd) Pyrene	4.65E+00	ca	4.23E-01	ca	na	4.65E+00	na	na	4.23E-01
Benzo (g,h,i) Perylene	1.50E-01	sat	1.50E-01	sat	1.50E+03	na	1.50E-01	4.84E+01	na

Chemical	Single Chemical Direct Contact Cleanup Value for Residential Soil (mg/kg)	Source of Toxicity Values
Methyl Chloride	3.66E+01	RfC, IRIS
Bromomethane	3.77E+00	RfD & RfC, IRIS
Isopropylbenzene	1.59E+03	RfD & RfC, IRIS
1,2,3-Trichloropropane*	6.33E-01	RfD, IRIS; Sfo, Heast
n-Propylbenzene	5.45E+02	RfD, NCEA
1,3,5-Trimethylbenzene	1.94E+01	RfD & RfC, NCEA
1,2,4-Trimethylbenzene	2.23E+01	RfD & RfC, NCEA
1,2,4-Trichlorobenzene	1.05E+02	RfD, IRIS; RfC, Health Canada
tert-Butylbenzene	5.45E+02	RfD, NCEA
sec-Butylbenzene	5.45E+02	RfD, NCEA
n-Butylbenzene	5.45E+02	RfD, NCEA
		Source of Surrogate
2-Methylnaphthalene	use value for naphthalene	CPRG
Phenanthrene	use value for anthracene	VAP
p-Isopropyltoluene	use value for xylene	VAP
Benzo(g,h,i)perylene	use value for pyrene	VAP
*value for 1,2,3-Trichloropropane is based on cancer value; noncancer value is 3.27E+02 mg/kg		
All standards were calculated using Tables 1, 2, and 3 from Appendix H of the March 1999 CPRG.		
Dermal toxicity values were extrapolated from oral values.		

Chemical	IngRc (mg/d)	IngRa (mg/d)	CF (kg/mg)	EF (d/y)	Edc (yr)	Eda (yr)	BWc (kg)	Bwa (kg)	Atncc (d)	Atnca (d)	Atc (d)	Sac (cm2/d)
Methyl Chloride	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
Bromomethane	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
Isopropylbenzene	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
1,2,3-Trichloropropane	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
n-Propylbenzene	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
1,3,5-Trimethylbenzene	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
1,2,4-Trimethylbenzene	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
1,2,4-Trichlorobenzene	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
tert-Butylbenzene	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
sec-Butylbenzene	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
n-Butylbenzene	200	50	1.00E-06	250	6	25	15	70	2190	9125	25550	2900
2-Methylnaphthalene												
Phenanthrene												
p-Isopropyltoluene												
Benzo(g,h,i)perylene												
Methyl Chloride												
Bromomethane												
Isopropylbenzene												
1,2,3-Trichloropropane												
n-Propylbenzene												
1,3,5-Trimethylbenzene												
1,2,4-Trimethylbenzene												
1,2,4-Trichlorobenzene												
tert-Butylbenzene												
sec-Butylbenzene												
n-Butylbenzene												

Saa (cm2/d)	Afc (mg/cm2)	Afa (mg/cm2)	ABS	InhRc (m3/d)	InhRa (m3/d)	PEF (m3/kg)	VF (m3/kg)	Epingncc	Epingnca	Epingc	Epderncc	Epdernca
5700	0.3	0.08	0.1	10	7	1.30E+09	8.99E+02	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07
5700	0.3	0.08	0.1	10	7	1.30E+09	1.81E+03	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07
5700	0.3	0.08	0.1	10	7	1.30E+09	1.30E+04	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07
5700	0.3	0.08	0.1	10	7	1.30E+09	1.74E+04	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07
5700	0.3	0.08	0.1	10	7	1.30E+09	5.84E+03	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07
5700	0.3	0.08	0.1	10	7	1.30E+09	7.33E+03	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07
5700	0.3	0.08	0.1	10	7	1.30E+09	8.45E+03	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07
5700	0.3	0.08	0.1	10	7	1.30E+09	4.18E+04	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07
5700	0.3	0.08	0.1	10	7	1.30E+09	1.16E+04	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07
5700	0.3	0.08	0.1	10	7	1.30E+09	1.00E+04	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07
5700	0.3	0.08	0.1	10	7	1.30E+09	1.19E+04	9.13E-06	4.89E-07	9.16E-07	3.97E-06	4.46E-07

Epderc	Epinhncc	Epinhnca	Epinhc	RfD (mg/kg-d)	RfDi (mg/kg-d)	Sfo	Sfi	Csingncc	Csingnca	Csingc	Csderncc	Csdernca	Csderc	Cainhncc
4.62E-07	4.57E-01	6.85E-02	5.77E-02	na	2.60E-02	na	na	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	5.69E-02
4.62E-07	4.57E-01	6.85E-02	5.77E-02	1.40E-03	1.40E-03	na	na	1.53E+02	2.86E+03	#VALUE!	3.52E+02	3.14E+03	#VALUE!	3.07E-03
4.62E-07	4.57E-01	6.85E-02	5.77E-02	1.00E-01	1.10E-01	na	na	1.10E+04	2.04E+05	#VALUE!	2.52E+04	2.24E+05	#VALUE!	2.41E-01
4.62E-07	4.57E-01	6.85E-02	5.77E-02	6.00E-03	na	7.00E+00	na	6.57E+02	1.23E+04	#######	1.51E+03	1.34E+04	3.09E+00	#VALUE!
4.62E-07	4.57E-01	6.85E-02	5.77E-02	1.00E-02	na	na	na	1.10E+03	2.04E+04	#VALUE!	2.52E+03	2.24E+04	#VALUE!	#VALUE!
4.62E-07	4.57E-01	6.85E-02	5.77E-02	5.00E-02	1.70E-03	na	na	5.48E+03	1.02E+05	#VALUE!	1.26E+04	1.12E+05	#VALUE!	3.72E-03
4.62E-07	4.57E-01	6.85E-02	5.77E-02	5.00E-02	1.70E-03	na	na	5.48E+03	1.02E+05	#VALUE!	1.26E+04	1.12E+05	#VALUE!	3.72E-03
4.62E-07	4.57E-01	6.85E-02	5.77E-02	1.00E-02	2.00E-03	na	na	1.10E+03	2.04E+04	#VALUE!	2.52E+03	2.24E+04	#VALUE!	4.38E-03
4.62E-07	4.57E-01	6.85E-02	5.77E-02	1.00E-02	na	na	na	1.10E+03	2.04E+04	#VALUE!	2.52E+03	2.24E+04	#VALUE!	#VALUE!
4.62E-07	4.57E-01	6.85E-02	5.77E-02	1.00E-02	na	na	na	1.10E+03	2.04E+04	#VALUE!	2.52E+03	2.24E+04	#VALUE!	#VALUE!
4.62E-07	4.57E-01	6.85E-02	5.77E-02	1.00E-02	na	na	na	1.10E+03	2.04E+04	#VALUE!	2.52E+03	2.24E+04	#VALUE!	#VALUE!

Cainhnca	Cainhc	Csinhncc	Csinhnca	Csinhc	Cleanup Value NCC(mg/kg)	Cleanup Value NCA	Cleanup Value C	Single Chemical Cleanup Value (mg/kg)
3.80E-01	#VALUE!	5.12E+01	3.41E+02	#VALUE!	5.12E+01	3.41E+02		5.12E+01
2.04E-02	#VALUE!	5.55E+00	3.70E+01	#VALUE!	5.28E+00	3.61E+01		5.28E+00
1.61E+00	#VALUE!	3.13E+03	2.09E+04	#VALUE!	2.22E+03	1.75E+04		2.22E+03
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	4.58E+02	6.41E+03	1.04E+00	1.04E+00
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	7.63E+02	1.07E+04		7.63E+02
2.48E-02	#VALUE!	2.73E+01	1.82E+02	#VALUE!	2.71E+01	1.81E+02		2.71E+01
2.48E-02	#VALUE!	3.15E+01	2.10E+02	#VALUE!	3.12E+01	2.09E+02		3.12E+01
2.92E-02	#VALUE!	1.83E+02	1.22E+03	#VALUE!	1.48E+02	1.10E+03		1.48E+02
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	7.63E+02	1.07E+04		7.63E+02
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	7.63E+02	1.07E+04		7.63E+02
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	7.63E+02	1.07E+04		7.63E+02
								use value for naphthalene
								use value for anthracene
								use value for xylene
								use value for pyrene
						1.10E+01		
						1.16E+00		
						5.63E+02		
						2.07E+02		
						3.45E+02		
						5.85E+00		
						6.74E+00		
						3.53E+01		
						3.45E+02		
						3.45E+02		
						3.45E+02		

Source of Tox Values	Soil sat	S	Pb	Koc	Foc	Kd	Ow	H'	Oa
RfC, IRIS	1.09E+03	5.32E+03	1.5	6.3	0.006	0.0378	0.15	0.362	0.28
RfD & RfC, IRIS	3.07E+03	1.52E+04	1.5	9.00E+00	0.006	0.054	0.15	2.56E-01	0.28
RfD & RfC, IRIS	8.55E+02	5.00E+01	1.5	2.82E+03	0.006	16.92	0.15	4.72E-01	0.28
RfD, IRIS; Sfo, Heast	9.88E+02	1.75E+03	1.5	7.70E+01	0.006	0.462	0.15	1.41E-02	0.28
RfD, NCEA	7.20E+01	2.34E+01	1.5	4.95E+02	0.006	2.97	0.15	4.31E-02	0.28
RfD & RfC, NCEA	1.99E+02	4.82E+01	1.5	6.60E+02	0.006	3.96	0.15	3.60E-01	0.28
RfD & RfC, NCEA	2.55E+02	5.70E+01	1.5	7.20E+02	0.006	4.32	0.15	2.53E-01	0.28
RfD, IRIS; RfC, Health Canada	3.02E+03	3.00E+02	1.5	1.66E+03	0.006	9.96	0.15	5.82E-02	0.28
RfD, NCEA	3.88E+02	2.95E+01	1.5	2.15E+03	0.006	12.918	0.15	7.22E-01	0.28
RfD, NCEA	2.36E+02	1.76E+01	1.5	2.20E+03	0.006	13.2	0.15	7.22E-01	0.28
RfD, NCEA	2.36E+02	1.76E+01	1.5	2.20E+03	0.006	13.2	0.15	7.22E-01	0.28
Source of Surrogate									
CPRG	1.13E+04	2.58E+01	1.5	1.37E+03	0.006	8.19	0.15	5.00E-03	0.28
VAP	1.58E+02	1.15E+00	1.5	2.29E+04	0.006	137.4	0.15	1.48E-03	0.28
VAP	5.73E+02	2.34E+01	1.5	4.05E+03	0.006	24.3	0.15	4.51E-01	0.28
VAP	1.50E-01	2.60E-04	1.5	9.60E+04	0.006	576	0.15	1.10E-05	0.28

Chemical	Cleanup Value NCC(mg/kg)	Cleanup Value NCA	Cleanup Value C	Single Chemical Cleanup Value (mg/kg)
Methyl Chloride	3.66E+01	8.53E+01		3.66E+01
Bromomethane	3.77E+00	9.13E+00		3.77E+00
Isopropylbenzene	1.59E+03	4.73E+03		1.59E+03
1,2,3-Trichloropropane	3.27E+02	3.01E+03	6.33E-01	6.33E-01
n-Propylbenzene	5.45E+02	5.01E+03		5.45E+02
1,3,5-Trimethylbenzene	1.94E+01	4.54E+01		1.94E+01
1,2,4-Trimethylbenzene	2.23E+01	5.23E+01		2.23E+01
1,2,4-Trichlorobenzene	1.05E+02	2.88E+02		1.05E+02
tert-Butylbenzene	5.45E+02	5.01E+03		5.45E+02
sec-Butylbenzene	5.45E+02	5.01E+03		5.45E+02
n-Butylbenzene	5.45E+02	5.01E+03		5.45E+02

2-Methylnaphthalene	use value for naphthalene
Phenanthrene	use value for anthracene
p-Isopropyltoluene	use value for xylene
Benzo(g,h,i)perylene	use value for pyrene

Source of Tox Values	Soil sat	S	Pb	Koc	Foc	Kd	Ow	H'	Oa
RfC, IRIS	1.09E+03	5.32E+03	1.5	6.3	0.006	0.0378	0.15	0.362	0.28
RfD & RfC, IRIS	3.07E+03	1.52E+04	1.5	9.00E+00	0.006	0.054	0.15	2.56E-01	0.28
RfD & RfC, IRIS	8.55E+02	5.00E+01	1.5	2.82E+03	0.006	16.92	0.15	4.72E-01	0.28
RfD, IRIS; Sfo, Heast	9.88E+02	1.75E+03	1.5	7.70E+01	0.006	0.462	0.15	1.41E-02	0.28
RfD, NCEA	7.20E+01	2.34E+01	1.5	4.95E+02	0.006	2.97	0.15	4.31E-02	0.28
RfD & RfC, NCEA	1.99E+02	4.82E+01	1.5	6.60E+02	0.006	3.96	0.15	3.60E-01	0.28
RfD & RfC, NCEA	2.55E+02	5.70E+01	1.5	7.20E+02	0.006	4.32	0.15	2.53E-01	0.28
RfD, IRIS; RfC, Health Canada	3.02E+03	3.00E+02	1.5	1.66E+03	0.006	9.96	0.15	5.82E-02	0.28
RfD, NCEA	3.88E+02	2.95E+01	1.5	2.15E+03	0.006	12.918	0.15	7.22E-01	0.28
RfD, NCEA	2.36E+02	1.76E+01	1.5	2.20E+03	0.006	13.2	0.15	7.22E-01	0.28
RfD, NCEA	2.36E+02	1.76E+01	1.5	2.20E+03	0.006	13.2	0.15	7.22E-01	0.28
Source of Surrogate									
CPRG	1.13E+04	2.58E+01	1.5	1.37E+03	0.006	8.19	0.15	5.00E-03	0.28
VAP	1.58E+02	1.15E+00	1.5	2.29E+04	0.006	137.4	0.15	1.48E-03	0.28
VAP	5.73E+02	2.34E+01	1.5	4.05E+03	0.006	24.3	0.15	4.51E-01	0.28
VAP	1.50E-01	2.60E-04	1.5	9.60E+04	0.006	576	0.15	1.10E-05	0.28

This document is a work-in-progress of the Division of Hazardous Waste Management Staff. This document is subject to change and has not received the final approval of Ohio EPA management. It does not represent either the official position or policy of Ohio EPA. This is a draft.

Vapor Intrusion Guidance

What Vapor Intrusion Is

As defined by the leaching and volatilization assessment (LAVA) workgroup of the Ohio EPA waste management cleanup program subcommittee (WMCUPS), the volatilization to indoor air pathway (or vapor intrusion pathway) may be envisioned as a structure sitting above a zone of contamination, either volatile organic compound (VOC) contaminated soil or ground water. Contaminant vapors move into the soil gas above the contaminated zone by diffusion, and then move through air-filled soil spaces at a rate defined by chemical-specific soil gas diffusivity. Due to a combination of the effects of wind, and stack effects due to building heating and ventilation, the enclosed space of the building is assumed to be underpressurized with respect to soil gas pressure. This underpressurization sets up a convective air movement in the soil surrounding the structure; the area influenced by this convection is called the building's zone of influence. Contaminant vapors that enter the zone of influence of the building may be swept up into the building through cracks in the basement or foundation by convection, or they may diffuse through cracks or building materials (Ohio EPA, 2000).

Why Vapor Intrusion Should Be Assessed

According to the U.S. EPA CA725 form, recent evidence from the Colorado Department of Public Health and Environment, and others, suggests that unacceptable indoor air concentrations are more common in structures above ground water with volatile contaminants than previously believed. Reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above, and adjacent to, ground water and soil with volatile contaminants) does not present unacceptable risks.

When to Assess the Vapor Intrusion Pathway

The vapor intrusion pathway should be considered at any unit where volatile organic compounds (VOCs) are constituents of concern (COCs). Unfortunately, because unit-specific parameters are needed to calculate the risk from this exposure pathway, generic cleanup numbers or screening standards are not feasible. However, the Johnson and Ettinger model spreadsheets for assessing vapor intrusion available from U.S. EPA are easy to use and can be run relatively quickly in order to determine unit-specific risks from indoor air. In addition, the models have two tiers to account for the level of unit-specific data available.

The vapor intrusion pathway needs to be considered for any receptor that will be exposed to indoor air at a closure unit where volatile contaminants of concern exist. This includes indoor industrial workers as well as residents.

To determine whether to evaluate the vapor intrusion pathway at a unit, answer the following questions based on the conceptual site model (CSM):

-Are any of the contaminants of concern in ground water or soil volatile organic compounds?
-Are there any present or potential enclosed structures that may be located above a contaminated area, including possible ground water contaminant plumes?
-Is there a potential receptor that may be exposed to air inside the building?
-Do any of the contaminants meet the criteria of a Henry's law constant less than $1x10^{-5}$ atm-m^3/mol and a molecular weight less than 200 g/mol?

If the answer to all of the previous questions was "yes", then the vapor intrusion to indoor air exposure pathway needs to be evaluated for the unit.

Information that is Critical to Calculating the Risk from Vapor Intrusion

The vapor intrusion pathway is critical to evaluate, especially at units where most other exposure pathways have been ruled out. An example of this is a unit with contamination left in place that is capped with concrete and adjacent to or relatively near a building. In this case, a receptor would not come into contact with the contamination via the routes typically evaluated in a risk assessment (ingestion, inhalation, and dermal exposure to soil). This would leave vapor intrusion as a possible exposure route due to the inability of the vapors to escape through the cap, which may cause the vapors to preferentially enter the building. Another example would be any unit where ground water is or may become contaminated above potable use levels and may be subject to a deed restriction (ingestion, inhalation, and dermal exposure to ground water pathways are not evaluated).

The vapor intrusion pathway is also important to evaluate when the soil type is especially permeable, for example with sandy soils. The risk prediction can change by as much as two orders of magnitude depending on the soil type used in the model calculations. With permeable soils, the risk from vapor intrusion may exceed the risk from the typical exposure pathways used to calculate risk to a receptor. Therefore, it is particularly important to evaluate the boring logs, U.S. Geological Survey information, and any other information pertaining to soil type at the unit before entering a soil type in the models as an input.

Because soil type is a highly sensitive parameter in the Johnson and Ettinger models, the most porous soil type that consists of 30% or more of the soil between the building

or the surface and the contamination should be used in the screening models. The advanced models have the potential to evaluate up to three different soil layers in conjunction, so for advanced modeling the three most common soil types under the unit should be used. The soil types should be considered in the following order based on permeability, with those at the top of the list being most porous:

-S; sand,
-LS; loamy sand,
-SL; sandy loam,
-SCL; sandy clay loam,
-L; loam,
-SIL; silty loam,
-CL; clay loam,
-C or SI; clay or silt,
-SC; sandy clay,
-SICL; silty clay loam,
-SIC; silty clay.

How to Assess the Vapor Intrusion Pathway

The method preferred by Ohio EPA DHWM for evaluating vapor intrusion is the Johnson and Ettinger model for subsurface vapor intrusion into buildings. This model was chosen based on the recommendation of the LAVA workgroup of WMCUPS, and is also recommended in state guidance documents by the Michigan Department of Environmental Quality, the Massachusetts Department of Environmental Protection, and the Colorado Department of Public Health and Environment.

The Johnson and Ettinger models can be found on the U.S. EPA website. These models can be downloaded at:

http://www.epa.gov/superfund/programs/risk/airmodel/johnson_ettinger.htm

The models are available in Excel and Lotus formats. The models are also available through the Central Office Risk Assessment Section. The user's guide for the models can be downloaded as an Adobe Acrobat file from the above website. The assessor should read the guide before using the models for the first time.

Ohio EPA DHWM will consider other vapor intrusion models including but not limited to AIR-3D, VENT-3D, and TOVOC. If using a model other than the Johnson and Ettinger models, the submission should be accompanied by adequate documentation to facilitate a review of the model results.

In performing standard risk calculations at a unit, DHWM assesses the inhalation pathway from both soil and ground water. Soil is evaluated assuming particulate

inhalation and inhalation of volatile contaminants found in the soil. Ground water is evaluated assuming inhalation of volatile contaminants while showering. Because the vapor intrusion pathway has some overlap with these inhalation pathways, it is not appropriate to assess the risk from vapor intrusion additively with these other inhalation pathways. If vapor intrusion is found to be a pathway of concern at a unit, it should be assessed separately from other inhalation pathways. The risk from vapor intrusion should, however, be added to risks from additional pathways (e.g., ingestion, dermal, etc.) to a receptor if other inhalation pathways are not assessed.

Information about the Johnson and Ettinger Models

There are eight separate models available to calculate indoor air exposure to contaminants. The eight versions are: soil screening model, ground water screening model, soil advanced model, ground water advanced model, soil gas screening model, soil gas advanced model, NAPL screening model, and NAPL advanced model. The advanced models require more unit-specific information than the screening models. The assessor should use the screening models when little unit-specific information is available. If enough unit-specific information is available to run the advanced models (see Tables 1 and 2 for which information is needed), the advanced models should be run. Because the advanced models require more unit-specific input, they should give more accurate predictions than the screening models, and therefore are preferred when the appropriate information is available.

The soil and ground water models can be used to calculate either a risk-based acceptable soil or ground water concentration or the risk from a currently existing soil or ground water concentration. These models can be used in developing unit-specific cleanup standards that include the vapor intrusion pathway.

The soil gas models can only calculate forward risk from a currently existing soil gas concentration. The soil gas models are therefore only relevant in determining if a risk to human health currently exists at the unit, not to determine risk-based standards for future use of the unit. The soil gas model can be used in lieu of the soil and/or ground water models where soil gas sampling data is available and relevant to calculate forward risk at a unit in order to reduce the uncertainty associated with that portion of the model.

The NAPL models are not suggested for use by Ohio EPA DHWM at this time. The reason for this is that the current policy of DHWM is to not allow free-phase contaminants to remain in the soil, even at levels below risk-based standards. In addition, the models require assumptions to be made about the fate, transport, and attenuation of the NAPL contaminants. The current policy of DHWM is not to accept models that assume attenuation of contaminants.

The information needed to calculate vapor intrusion risk using the Johnson and Ettinger models can be found in Tables 1 and 2.

The models themselves each consist of five Excel worksheets in a workbook. The first sheet, DATENTER, is the sheet where all the inputs listed in Table 1 are to be entered by the user. The second sheet, CHEMPROPS, is the sheet that will list all the toxicological and physical properties of the chemical for which risk is being calculated. This information is drawn from another worksheet, VLOOKUP. The intermediate calculations performed in calculating risk are shown on the INTERCALCS worksheet.

The VLOOKUP sheet is the list, in order of CAS number, of the chemicals available to model. More chemicals can be added to the VLOOKUP table. Instructions on how to add chemicals are given in the user's guide. It should be noted that the values in the VLOOKUP table are not always consistent with the values used by Ohio EPA DHWM. When evaluating a chemical, always check the values in the VLOOKUP table against the values used for other risk assessment calculations within the division. These values can be accessed by contacting the Central Office Risk Unit or, for employees, on the intranet at:

http://www.epa.state.oh.us/agency/hwm/ErasWeb/eras_web_pages/eras_frame.htm

under the "Risk Resources" button.

Soil Gas and Indoor Air Sampling

The Johnson and Ettinger models are considered to be reasonable estimators of risk from vapor intrusion at a unit based on validation studies (Johnson et. al., 2000, Fitzpatrick and Fitzgerald 1996). However, unit-specific conditions may cause the risk from vapor intrusion to be significantly over- or under- estimated by the models. DHWM will consider soil gas sampling data as a method to establish the predictability of the model given unit-specific parameters, or to supplement the information given in the models. Soil gas sampling data can be used directly in the Johnson and Ettinger soil gas models and limits the uncertainty found in the soil and ground water models.

Soil gas sampling should meet the following conditions where possible:

-sampled within 10 meters of the building or potential building,
-collected within one year of ground water and/or indoor air data collection,
-collected between the months of December and February, and
-collected less than 2 meters below the building foundation.

In addition, Ohio EPA DHWM recommends that soil gas sampling should be done using U.S. EPA SOP# 2042 or ASTM method D 5314-92 and U.S. EPA Method TO-14A in conjunction. If methods for soil gas sampling other than these are used, the method and all corresponding documentation including instrument calibration, analytical results, etc. should be included as part of the closure plan.

Ohio EPA DHWM will not accept indoor air sampling data. The reasons for this include the overall difficulty in achieving sampling results that allow Ohio EPA or the facility to

reliably detect constituents of concern and determine what the source(s) of the constituents may be. In addition, indoor air sampling results are difficult to reliably replicate on different days and at different times, which makes determining an exposure point concentration impractical.

Limitations of the Johnson and Ettinger Models

Limitations of the models exist that may result in inaccurate predictions of vapor intrusion. The models assume a concrete foundation with cracks. If the foundation consists, for example, of an earthen floor and fieldstone foundation, the models cannot be used to predict vapor intrusion. Unit-specific measurements or calculations would be necessary. The models also assume no openings, including open sumps, between the building and the contamination. If an open sump is present, specific calculations need to be performed to assess the amount of vapor intrusion from the sump. These calculations cannot be added to the Johnson and Ettinger models at this time. Other problems that may arise include severely cracked concrete floors and/or walls, or pavement being placed entirely above the source and around the building or potential building. Please contact the Central Office Risk Assessment Section for further information or help if the unit has any of the limitations discussed in this section.

In some cases, the Johnson and Ettinger models may also overestimate the risk from vapor intrusion. This can occur if a fresh water lens exists above the contamination, if significant biodegredation is occurring, and if other situations exist that are not accounted for by the model. If the facility suspects that for any reason the models may be overpredicting the risk from vapor intrusion, the facility may establish why and how the overprediction is occurring, and what the more accurate risk assessment should be.

Examples of When to Evaluate Vapor Intrusion in a Risk Assessment

Example 1

A facility has a unit undergoing an industrial closure. Soil is the only contaminated media, and it has been determined that leaching is not a concern. Volatile organic compounds are among the constituents of concern. Although the property will be deed restricted to industrial use only, the unit is large enough to support a building, and there is no deed restriction against enclosed structures or future excavations. Both excavation workers and potential indoor industrial employees are the receptors. For excavation workers, vapor intrusion is not a reasonable exposure pathway because these receptors will be working out of doors. The equations found in Appendix H of Part II of the CPRG should be used to calculate inhalation intake and risk.
For industrial workers, the vapor intrusion pathway should be considered because future use of the land may include a building in which industrial receptors work. First, the risk to indoor workers should be calculated as directed in Appendix H of Part II of the CPRG. In addition, the Johnson and Ettinger vapor intrusion models should be used to calculate the risk for the constituents that meet the volatilization criteria. Both the total risk calculated according to the CPRG and the total risk from the vapor

intrusion pathway should meet the DHWM risk goals of a hazard index of less than 1 and a cancer risk of less than $1x10^{-5}$.

Example 2

A facility has a unit undergoing a closure that must be cleaned to unrestricted residential standards. Volatile organic compounds are among the COCs. Potential receptors include excavation workers, industrial workers, and residents. Because excavation workers primarily work outside, the vapor intrusion pathway does not need to be assessed. The equations found in Appendix H (and the construction worker supplement?) should be used to calculate risk to these receptors. Industrial workers are assumed to work in a building for the duration of the work day, so the vapor intrusion model should be used for these receptors. As in Example 1, the risk to indoor workers should be calculated as directed in Appendix H of Part II of the CPRG. Then, the Johnson and Ettinger vapor intrusion models should be used to calculate the risk for the constituents that meet the volatilization criteria. Both the total risk calculated according to the CPRG and the total risk from the vapor intrusion pathway should meet the DHWM risk goals of a hazard index of less than 1 and a cancer risk of less than $1x10^{-5}$. Risk to the residential receptor should be calculated in the same manner as risk to the indoor worker, using residential exposure assumptions.

Table 1 Parameters Necessary for Soil and Ground Water Model Calculations[1]

Parameter	Soil Screening	Soil Advanced	Ground Water Screening	Ground Water Advanced	Default Available?[4]
Chemical CAS Number	X	X	X	X	N
Initial Soil or Ground Water Concentration[2]					N
Average Soil/Ground Water Temperature	X	X	X	X	Y
Depth Below Grade to Bottom of Enclosed Space Floor	X	X	X	X	Y
Depth Below Grade to Top of Contamination	X	X			N
Depth Below Grade to Water Table			X	X	N

Depth Below Grade to Bottom of Contamination		X			Y
Thickness of Soil Stratum "x"		X		X	N
Soil Stratum A SCS Soil Type		X		X	N
User-Defined Stratum A Soil Vapor Permeability		X		X	Y
Vadose Zone SCS Soil Type[3]					N
User-Defined Vadose Zone Soil Vapor Permeability[3]					N
Soil Stratum Directly Above the Water Table				X	N
SCS Soil Type Directly Above the Water Table			X	X	N
Stratum "x" Soil Dry Bulk Density		X		X	N
Stratum "x" Soil Total Porosity		X		X	N
Stratum "x" Soil Water-filled Porosity		X		X	N
Stratum "x" Soil Organic Carbon Fraction		X			N
Vadose Zone Soil Dry Bulk Density	X		X		Y
Vadose Zone Soil Total Porosity	X		X		Y
Vadose Zone Soil Water-filled Porosity	X		X		Y
Vadose Zone Soil Organic Carbon Fraction	X				Y
Enclosed Space Floor Thickness		X		X	Y
Soil-Building Pressure Differential		X		X	Y
Enclosed Space Floor Length		X		X	Y
Enclosed Space Floor Width		X		X	Y
Enclosed Space Height		X		X	Y
Floor-Wall Seam Crack Width		X		X	Y
Indoor Air Exchange Rate		X		X	Y
Averaging Time for Carcinogens	X	X	X	X	Y
Averaging Time for Noncarcinogens	X	X	X	X	Y
Exposure Duration	X	X	X	X	Y
Exposure Frequency	X	X	X	X	Y
Target Risk for Carcinogens	X	X	X	X	Y
Target Hazard Quotient for Noncarcinogens	X	X	X	X	Y

1- Adapted from User's Guide for the Johnson and Ettinger (1991) Model for Subsurface Vapor Intrusion Into Buildings (Revised), U.S. EPA, 2000.
2- This parameter is only necessary if calculating risk from a contaminant concentration. It is not necessary to develop risk-based standards.
3- One of these two parameters, and only one, should be entered into the model to calculate risk.
4- Defaults can be found in the models themselves as well as in the User's Guide.

Table 2 Parameters Necessary for Soil Gas Model Calculations[1]

Parameter	Soil Gas Screening	Soil Gas Advanced	Default Available[3]
Chemical CAS#	X	X	N
Soil Gas Concentration	X	X	N
Depth Below Grade to Bottom of Enclosed Space Floor	X	X	Y
Soil Gas Sampling Depth Below Grade	X	X	N

Average Soil Temperature	X	X	Y
Vadose Zone SCS Soil Type[2]	X		N
User-defined Vadose Zone Soil Vapor Permeability[2]	X		N
Vadose Zone Soil Dry Bulk Density	X		Y
Vadose Zone Soil Total Porosity	X		Y
Thickness of Soil Stratum "X"		X	N
Soil Stratum "A" SCS soil type[2]		X	N
User-defined Stratum "A" Soil Vapor Permeability[2]		X	N
Stratum "X" Soil Dry Bulk Density		X	Y
Stratum "X" Soil Total Porosity		X	Y
Stratum "X" Soil Water-filled Porosity		X	Y
Enclosed Space Floor Thickness		X	Y
Soil-Building Pressure Differential		X	Y
Enclosed Space Floor Length		X	Y
Enclosed Space Floor Width		X	Y
Enclosed Space Height		X	Y
Floor-Wall Seam Crack Width		X	Y
Indoor Air Exchange Rate		X	Y
Averaging Time for Carcinogens	X	X	Y
Averaging Time for Noncarcinogens	X	X	Y
Exposure Duration	X	X	Y
Exposure Frequency	X	X	Y

1- Adapted from User's Guide for the Johnson and Ettinger (1991) Model for Subsurface Vapor Intrusion Into Buildings (Revised), U.S. EPA, 2000.

2- One of these two parameters, and only one, should be entered into the model to calculate risk.

3- Defaults can be found in the models themselves as well as in the User's Guide.

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From: Kara Reynolds
To: mkovacich@geotransinc.com
Date: 7/25/03 9:24AM
Subject: Closure Certification

Michael,

After looking over the closure certification for Campbell's Former Holding Pit, I see that in Section 5.2, Post Treatment Closure Strategy, 26 chemicals of concern (COC) were eliminated during the remediation of the site. Please send me a table of these chemicals that were eliminated. I am also requesting a description of the location, sample ID, depth, concentration, and any other pertinent information about the sample where these 26 COCs were found (or not found) throughout the closure process. If these were not found at all, please state this in a paragraph and list all samples they were not found in (IE, clean soil, intermediate soil, confirmation samples). A narrative paragraph as to why these were left out of the end residual risk calculation would also be appreciated. I'm looking for something that could be as simple as "The chemicals listed in Table X were left out of the residual risk calculation because they were not found in any of the post closure samples and are thought to have been successfully treated"

Please email me a copy and also send a hard copy to the address listed below at your earliest convenience.

Please call me if you have any questions or concerns about this request.

Sincerely,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: Terpinski, Michael

From: Mylynda Shaskus
To: Reynolds, Kara
Date: 7/24/03 1:25PM
Subject: Benzo(g,h,i)perylene

Kara,

I calculated a soil sat limit for benzo(g,h,i)perylene of 0.05 mg/kg. However, it being a solid, I don't think it matters in regard to free product.

Mylynda

From: Mylynda Shaskus
To: Reynolds, Kara
Date: 7/17/03 11:34AM
Subject: Campbells

See attached.

Information that Mylynda Shaskus sent to Campbell Soup Company

Chemical	Single Chemical Direct Contact Cleanup Value for Residential Soil (mg/kg)	Source of Toxicity Values	Source of Surrogate
Methyl Chloride	3.66E+01	RfC, IRIS	CPRG
Bromomethane	3.77E+00	RfD & RfC, IRIS	VAP
Isopropylbenzene	1.59E+03	RfD & RfC, IRIS	VAP
1,2,3-Trichloropropane*	6.33E-01	RfD, IRIS; Sfo, Heast	VAP
n-Propylbenzene	5.45E+02	RfD, NCEA	
1,3,5-Trimethylbenzene	1.94E+01	RfD & RfC, NCEA	
1,2,4-Trimethylbenzene	2.23E+01	RfD & RfC, NCEA	
1,2,4-Trichlorobenzene	1.05E+02	RfD, IRIS; RfC, Health Canada	
tert-Butylbenzene	5.45E+02	RfD, NCEA	
sec-Butylbenzene	5.45E+02	RfD, NCEA	
n-Butylbenzene	5.45E+02	RfD, NCEA	
Trichlorofluoromethane	3.58E+02	RfD, IRIS; RfDi, HEAST	
trans-1,2-Dichloroethene	1.09E+03	RfD, IRIS	
1,2-Dichloroethane	1.07E+01	RfD, RfDi, NCEA; SF, SFi, IRIS	
Bromobenzene	3.76E+01	RfD, RfDi, NCEA	
2-Chlorotoluene	1.09E+03	RfD, IRIS	
1,2-Dibromo-3-chloropropane	3.11E+00	RfD, ATSDR; RfDi, IRIS	
Hexachlorobutadiene	1.09E+01	RfD, HEAST; SF, SFi, IRIS	
1,2,3-Trichlorobenzene	8.18E+01	RfD, Health Canada	
2-Methylnaphthalene	use value for naphthalene		
Phenanthrene	use value for anthracene		
p-Isopropyltoluene	use value for xylene		
Benzo(g,h,i)perylene	use value for pyrene		

*value for 1,2,3-Trichloropropane is based on cancer value; noncancer value is 3.27E+02 mg/kg

All standards were calculated using Tables 1, 2, and 3 from Appendix H of the March 1999 CPRG.
Dermal toxicity values were extrapolated from oral values.

To be evaluated qualitatively
1,1-Dichloropropene
4-Chlorotoluene

COCs	Direct Contact Soil Standard, Single Chemical (mg/kg)	Basis	Direct Contact Soil Standard, Multiple Chemical Adjusted (mg/kg)	Basis	NC GCN	CA GCN	SAT	MCA NC	MCA CA
Chloromethane (methyl chloride)	3.66E+01	nc	1.18E+00	nc	3.66E+01	na	1.09E+03	1.18E+00	na
Bromomethane	3.77E+00	nc	1.22E-01	nc	3.77E+00	na	3.07E+03	1.22E-01	na
Methylene chloride	8.50E+01	ca	7.73E+00	ca	1.63E+03	8.50E+01	2.28E+03	5.26E+01	7.73E+00
Chloroform	2.41E+00	ca	2.19E-01	ca	4.16E+01	2.41E+00	2.53E+03	1.34E+00	2.19E-01
Benzene	6.85E+00	nc	2.21E-01	nc	6.85E+00	6.87E+00	9.58E+02	2.21E-01	6.25E-01
Trichloroethene	2.24E+01	nc	7.23E-01	nc	2.24E+01	2.70E+01	9.24E+02	7.23E-01	2.45E+00
Toluene	5.74E+02	nc	1.85E+01	nc	5.74E+02	na	8.80E+02	1.85E+01	na
Ethylbenzene	2.25E+02	sat	4.42E+01	nc	1.37E+03	na	2.25E+02	4.42E+01	na
Total xylenes	3.16E+02	sat	4.74E+01	nc	1.47E+03	na	3.16E+02	4.74E+01	na
Styrene	6.83E+02	sat	1.29E+02	nc	3.99E+03	na	6.83E+02	1.29E+02	na
Isopropylbenzene (cumene)	8.55E+02	sat	5.13E+01	nc	1.59E+03	na	8.55E+02	5.13E+01	na
1,2,3-Trichloropropane	6.33E-01	ca	5.75E-02	ca	3.27E+02	6.33E-01	9.88E+02	1.05E+01	5.75E-02
n-Propylbenzene	7.20E+01	sat	1.76E+01	nc	5.45E+02	na	7.20E+01	1.76E+01	na
1,3,5-Trimethylbenzene	1.94E+01	nc	6.26E-01	nc	1.94E+01	na	1.99E+02	6.26E-01	na
tert-Butylbenzene	3.88E+02	sat	1.76E+01	nc	5.45E+02	na	3.88E+02	1.76E+01	na
1,2,4-Trimethylbenzene	2.23E+01	nc	7.19E-01	nc	2.23E+01	na	2.55E+02	7.19E-01	na
sec-Butylbenzene	2.36E+02	sat	1.76E+01	nc	5.45E+02	na	2.36E+02	1.76E+01	na
p-Isopropyltoluene	5.73E+02	sat	1.85E+01	nc	5.73E+02	na	5.73E+02	1.85E+01	na
n-Butylbenzene	2.36E+02	sat	1.76E+01	nc	5.45E+02	na	2.36E+02	1.76E+01	na
1,2,4-Trichlorobenzene	1.05E+02	nc	3.39E+00	nc	1.05E+02	na	3.02E+03	3.39E+00	na
Naphthalene	5.46E+01	nc	1.76E+00	nc	5.46E+01	na	2.43E+02	1.76E+00	na
2-Methylnaphthalene	5.46E+01	nc	1.76E+00	nc	5.46E+01	na	1.13E+04	1.76E+00	na
Methyl 4,-2-Propanone (MIBK)	7.28E+02	nc	2.35E+01	nc	7.28E+02	na	1.72E+04	2.35E+01	na
Butanone 2- (MEK)	6.60E+03	nc	2.13E+02	nc	6.60E+03	na	3.41E+04	2.13E+02	na
Acenaphthene	1.08E+02	sat	7.06E+01	nc	2.19E+03	na	1.08E+02	7.06E+01	na
Fluorene	9.03E+01	sat	4.90E+01	nc	1.52E+03	na	9.03E+01	4.90E+01	na
Phenanthrene	1.58E+02	sat	1.58E+02	sat	1.21E+04	na	1.58E+02	3.90E+02	na
Anthracene	5.67E+00	sat	5.67E+00	sat	1.21E+04	na	5.67E+00	3.90E+02	na
Fluoranthene	1.65E+03	nc	5.32E+01	nc	1.65E+03	na	na	5.32E+01	na
Pyrene	9.96E+01	sat	4.84E+01	nc	1.50E+03	na	9.96E+01	4.84E+01	na
Benzo (a) Anthracene	4.63E+00	ca	4.21E-01	ca	na	4.63E+00	na	na	4.21E-01
Chrysene	7.18E+00	sat	7.18E+00	sat	na	4.57E+02	7.18E+00	na	4.15E+01
Benzo (b)Fluoranthene	4.60E+00	ca	4.18E-01	ca	na	4.60E+00	na	na	4.18E-01
Benzo (k) Fluoranthene	4.65E+01	ca	4.23E+00	ca	na	4.65E+01	na	na	4.23E+00
Benzo (a) Pyrene	4.65E-01	ca	4.23E-02	ca	na	4.65E-01	na	na	4.23E-02
Indeno (1,2,3-cd) Pyrene	4.65E+00	ca	4.23E-01	ca	na	4.65E+00	na	na	4.23E-01
Benzo (g,h,i) Perylene	1.50E-01	sat	1.50E-01	sat	1.50E+03	na	1.50E-01	4.84E+01	na
Trichlorofluoromethane	3.58E+02	nc	7.96E+00	nc	3.58E+02	na	3.91E+04	7.96E+00	na
trans-1,2-Dichloroethene	1.09E+03	nc	2.42E+01	nc	1.09E+03	na	3.05E+03	2.42E+01	na
1,2-Dichloroethane	1.07E+01	nc	2.38E-01	nc	1.07E+01	2.82E+01	1.81E+03	2.38E-01	1.76E+00
Bromobenzene	3.76E+01	nc	8.36E-01	nc	3.76E+01	na	7.53E+02	8.36E-01	na
2-Chlorotoluene	1.09E+03	nc	2.42E+01	nc	1.09E+03	na	1.42E+03	2.42E+01	na
1,2-Dibromo-3-chloropropane	3.11E+00	nc	6.90E-02	nc	3.11E+00	na	2.07E+03	6.90E-02	na
Hexachlorobutadiene	1.09E+01	nc	2.42E-01	nc	1.09E+01	5.68E+01	1.18E+05	2.42E-01	3.55E+00
1,2,3-Trichlorobenzene	8.18E+01	nc	1.82E+00	nc	8.18E+01	na	1.24E+03	1.82E+00	na
1,1-Dichloroethene	5.21E-01	ca	3.26E-02	ca	1.97E+01	5.21E-01	1.55E+03	4.38E-01	3.26E-02
1,1,2,2-Tetrachloroethane	3.56E+00	ca	2.23E-01	ca	na	3.56E+00	1.71E+03	na	2.23E-01
1,2-Dichlorobenzene	3.73E+02	sat	1.92E+01	nc	8.63E+02	na	3.73E+02	1.92E+01	na
1,3-Dichlorobenzene	2.40E+02	sat	9.09E+00	nc	4.09E+02	na	2.40E+02	9.09E+00	na
1,4-Dichlorobenzene	3.04E+01	ca	1.90E+00	ca	3.37E+03	3.04E+01	na	7.49E+01	1.90E+00
Chlorobenzene	5.02E+01	nc	1.12E+00	nc	5.02E+01	na	6.95E+02	1.12E+00	na
Acetone	1.39E+03	nc	3.09E+01	nc	1.39E+03	na	1.04E+05	3.09E+01	na
1,1-Dichloropropene	qualitative								
4-Chlorotoluene	qualitative								

TABLE 3
DIRECT CONTACT SOIL STANDARD
MULTIPLE CHEMICAL ADJUSTED
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO

Chemical of Concern Identified at the Site	Direct Contact Soil Standard, Single Chemical (mg/kg)	Basis	Direct Contact Soil Standard, Multiple Chemical Adjusted (µg/kg)	Direct Contact Soil Standard, Multiple Chemical Adjusted (mg/kg)	Basis	Non-Cancer GCN	Cancer GCN	SAT	MCA NC	MCA CA
Chloromethane (methyl chloride)	3.66E+01	nc	813	0.81	nc	3.66E+01	na	1.09E+03	8.13E-01	na
Bromomethane	3.77E+00	nc	84	0.08	nc	3.77E+00	na	3.07E+03	8.38E-02	na
Methylene chloride	8.50E+01	ca	5,313	5.31	ca	1.63E+03	8.50E+01	2.28E+03	3.62E+01	5.31E+00
Chloroform	2.41E+00	ca	151	0.15	ca	4.16E+01	2.41E+00	2.53E+03	9.24E-01	1.51E-01
Benzene	6.85E+00	nc	152	0.15	nc	6.85E+00	6.87E+00	9.58E+02	1.52E-01	4.29E-01
Trichloroethene	2.24E+01	nc	498	0.50	nc	2.24E+01	2.70E+01	9.24E+02	4.98E-01	1.69E+00
Toluene	5.74E+02	nc	12,756	12.76	nc	5.74E+02	na	8.80E+02	1.28E+01	na
Ethylbenzene	2.25E+02	sat	30,444	30.44	nc	1.37E+03	na	2.25E+02	3.04E+01	na
Total xylenes	3.16E+02	sat	32,667	32.67	nc	1.47E+03	na	3.16E+02	3.27E+01	na
Styrene	6.83E+02	sat	88,667	88.67	nc	3.99E+03	na	6.83E+02	8.87E+01	na
Isopropylbenzene (cumene)	8.55E+02	sat	35,333	35.33	nc	1.59E+03	na	8.55E+02	3.53E+01	na
1,2,3-Trichloropropane	6.33E-01	ca	40	0.04	ca	3.27E+02	6.33E-01	9.88E+02	7.27E+00	3.96E-02
n-Propylbenzene	7.20E+01	sat	12,111	12.11	nc	5.45E+02	na	7.20E+01	1.21E+01	na
1,3,5-Trimethylbenzene	1.94E+01	nc	431	0.43	nc	1.94E+01	na	1.99E+02	4.31E-01	na
tert-Butylbenzene	3.88E+02	sat	12,111	12.11	nc	5.45E+02	na	3.88E+02	1.21E+01	na
1,2,4-Trimethylbenzene	2.23E+01	nc	496	0.50	nc	2.23E+01	na	2.55E+02	4.96E-01	na
sec-Butylbenzene	2.36E+02	sat	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
p-Isopropyltoluene	5.73E+02	sat	12,733	12.73	nc	5.73E+02	na	5.73E+02	1.27E+01	na
n-Butylbenzene	2.36E+02	sat	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
1,2,4-Trichlorobenzene	1.05E+02	nc	2,333	2.33	nc	1.05E+02	na	3.02E+03	2.33E+00	na
Naphthalene	5.46E+01	nc	1,213	1.21	nc	5.46E+01	na	2.43E+02	1.21E+00	na
2-Methylnaphthalene	5.46E+01	nc	1,213	1.21	nc	5.46E+01	na	1.13E+04	1.21E+00	na
Methyl 4,-2-Propanone (MIBK)	7.28E+02	nc	16,178	16.18	nc	7.28E+02	na	1.72E+04	1.62E+01	na
Butanone 2- (MEK)	6.60E+03	nc	146,667	146.67	nc	6.60E+03	na	3.41E+04	1.47E+02	na
Acenaphthene	1.08E+02	sat	48,667	48.67	nc	2.19E+03	na	1.08E+02	4.87E+01	na
Fluorene	9.03E+01	sat	33,778	33.78	nc	1.52E+03	na	9.03E+01	3.38E+01	na
Phenanthrene	1.58E+02	sat	158,000	158.00	sat	1.21E+04	na	1.58E+02	2.69E+02	na
Anthracene	5.67E+00	sat	5,670	5.67	sat	1.21E+04	na	5.67E+00	2.69E+02	na
Fluoranthene	1.65E+03	nc	36,667	36.67	nc	1.65E+03	na	na	3.67E+01	na
Pyrene	9.96E+01	sat	33,333	33.33	nc	1.50E+03	na	9.96E+01	3.33E+01	na
Benzo (a) Anthracene	4.63E+00	ca	289	0.29	ca	na	4.63E+00	na	na	2.89E-01
Chrysene	7.18E+00	sat	7,180	7.18	sat	na	4.57E+02	7.18E+00	na	2.86E+01
Benzo (b)Fluoranthene	4.60E+00	ca	288	0.29	ca	na	4.60E+00	na	na	2.88E-01
Benzo (k) Fluoranthene	4.65E+01	ca	2,906	2.91	ca	na	4.65E+01	na	na	2.91E+00
Benzo (a) Pyrene	4.65E-01	ca	29	0.03	ca	na	4.65E-01	na	na	2.91E-02
Indeno (1,2,3-cd) Pyrene	4.65E+00	ca	291	0.29	ca	na	4.65E+00	na	na	2.91E-01
Benzo (g,h,i) Perylene	1.50E-01	sat	150	0.15	sat	1.50E+03	na	1.50E-01	3.33E+01	na
Trichlorofluoromethane	3.58E+02	nc	7,956	7.96	nc	3.58E+02	na	3.91E+04	7.96E+00	na
1,1-Dichloroethene	5.21E-01	ca	33	0.03	ca	1.97E+01	5.21E-01	1.55E+03	4.38E-01	3.26E-02
trans-1,2-Dichloroethene	6.22E+01	nc	1,382	1.38	nc	6.22E+01	na	3.05E+03	1.38E+00	na
1,1-Dichloropropene	qualitative		qualitative	qualitative		na	na		na	na
1,2-Dichloroethane	1.07E+01	nc	238	0.24	nc	1.07E+01	2.82E+01	1.81E+03	2.38E-01	1.76E+00
Chlorobenzene	5.02E+01	nc	1,116	1.12	nc	5.02E+01	na	6.95E+02	1.12E+00	na
Bromobenzene	3.76E+01	nc	836	0.84	nc	3.76E+01	na	7.53E+02	8.36E-01	na
1,1,2,2-Tetrachloroethane	3.56E+00	ca	223	0.22	ca	na	3.56E+00	1.71E+03	na	2.23E-01
2-Chlorotoluene	1.09E+03	nc	24,222	24.22	nc	1.09E+03	na	1.42E+03	2.42E+01	na
4-Chlorotoluene	qualitative		qualitative	qualitative		na	na	3.44E+02	na	na
1,3-Dichlorobenzene	2.40E+02	sat	9,089	9.09	nc	4.09E+02	na	2.40E+02	9.09E+00	na
1,4-Dichlorobenzene	3.04E+01	ca	1,900	1.90	ca	3.37E+03	3.04E+01	na	7.49E+01	1.90E+00
1,2-Dichlorobenzene	3.73E+02	sat	19,178	19.18	nc	8.63E+02	na	3.73E+02	1.92E+01	na
1,2-Dibromo-3-chloropropane	3.11E+00	nc	69	0.07	nc	3.11E+00	na	2.07E+03	6.91E-02	na
Hexachlorobutadiene	1.09E+01	nc	242	0.24	nc	1.09E+01	5.68E+01	1.18E+05	2.42E-01	3.55E+00
1,2,3-Trichlorobenzene	8.18E+00	nc	182	0.18	nc	8.18E+00	na	1.24E+03	1.82E-01	na
Acetone	1.44E+03	nc	32,000	32.00	nc	1.44E+03	na	1.04E+05	3.20E+01	na

Henry Co.

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

July 3, 2003

RECEIVED
JUL 07 2003
OHIO E.P.A.
N.W.D.O.

Via Airborne Express

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
ATTN: Pamela Allen
Regulatory and Information Services Section
122 South Front Street
Columbus, Ohio 43215

And

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
Attn: Ms. Kara Reynolds
Division of Hazardous Waste Management
347 Dunbridge Road
Bowling Green, Ohio 43402

RE: Campbell Soup Company, Napoleon Site
RCRA Site Closure Certification Report

Dear Ms. Reynolds:

This is to inform you that all the soil remediation and closure activities at Campbell Soup Company's site located at 1273 State Route 110, Napoleon, Ohio, have been completed on May 15, 2003 according to the approved RCRA Closure Work Plan.

Enclosed please find copies of a "Certification Report" prepared by GeoTrans, Inc., an independent registered professional engineer, certifying that the facility has been closed in accordance with the specifications in the approved closure plan. The certification was prepared following the format specified in OAC rule 374-5-50-53(D).

We would appreciate your review and approval of this certification report at your earliest convenience. If you have any questions, please call me at (856) 968-4423, or Michael Kovacich at (734) 213-5024.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

cc: Faith Greenfield, Esq.
R. T. Shober

Campbell SOUP Company

NAPOLEON, OHIO 43545

RECEIVED
JUN 11 2003
OHIO E.P.A.
N.W.D.O

June 9, 2003

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
Attn: Ms. Kara Reynolds
347 Dunbridge Road
Bowling Green, Ohio 43402

RE: Campbell Soup Company, Napoleon Site
Demolition Debris In The Former Holding Pit

Dear Ms. Reynolds:

During recent excavations in the former holding pit area, Campbell Soup representatives confirmed the presence of demolition debris in the northeast corner of the excavation, near monitoring well MW-3. The debris included items such as concrete, rebar, and asphalt and existed as a 6-inch to 1-foot layer along the sidewall in confirmation sample grid cell number 41. An initial confirmation sample was collected in this location and on March 17, 2003, a more representative sample was collected under the supervision of James Moseley of the Ohio EPA. These sampling results will be presented in the project certification report. To the best of our knowledge, this material was the result of construction and/or demolition activity that took place on the property many years ago, possibly during the timeframe of after 1955 and prior to 1970.

If you have any questions regarding this request, please do not hesitate to call me at 419 592-1010, or contact Mr. Michael Kovacich at 734 213-5024.

Sincerely,

CAMPBELL SOUP COMPANY

David Parcher
Plant Manager – Napoleon Plant

From: Kara Reynolds
To: mkovacich@geotransinc.com
Date: 6/10/03 12:37PM
Subject: Campbell Soup Napoleon Certification Report

Mike,

As stated yesterday in our phone conversation, on May 15, 2003 the offsite disposal to Henry County Landfill was completed. Ohio EPA recognizes May 15, 2003 as the last day of field work. According to the Closure Plan, a certification report will be submitted to Ohio EPA 60 days after the completion of the field work. Therefore, the Certification Report is due to Ohio EPA on July 14, 2003.

The Certification Report will include everything outlined in the Closure Plan along with the Investigative Results from Soil and Groundwater that were in question.

If you have other questions, please feel free to contact me.

Sincerely,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 6/9/03 5:43PM
Subject: Campbell Soup Napoleon Certification Report Update

Kara,

Per our conversation earlier today we are seeking clarification from the district regarding the definition of field work which defines the due date for the certification report. The Closure Plan states that the certification report will be submitted to the Ohio EPA 60 days after the completion of the field work. The key field work activities were completed on the following dates:

April 16, 2003, completed clean and treated soil backfill.

April 18, 2003, completed grading of the backfill.

May 15, 2003, completed offsite disposal to Henry County Landfill.

We believe that the May 15, 2003 date represents an appropriate date for completion of field work since documentation of all offsite disposal of soil is required in the certification report.

We appreciate your assistance with this matter and look forward to your response.

Sincerely,

Michael Kovacich
Senior Hydrogeologist
GeoTrans, Inc.
734.213.5024

CC: <osman_aly@campbellsoup.com>, <o.aly@worldnet.att.net>

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 6/2/03 5:23PM
Subject: Re: Questions

Kara,

Per our conversation today, we have completed a rough version of the text, figures and appendixes. The document will be reviewed internally within GeoTrans this week and will be reviewed by Campbell's next week.

Since backfill was completed on April 16, 2003, we plan to submit the report to you by June 16, 2003. Soil transportation to the Henry County Landfill was complete on May 15, 2003, but this date has not been confirmed with Mike Maringer in Napoleon. Mike has been out sick for the last week or so.

Please give me call in you have any questions

Sincerely,

Michael Kovacich
Senior Hydrogeologist
GeoTrans, Inc.
734.213.5024

>>> "Kara Reynolds" <Kara.Reynolds@epa.state.oh.us> 06/02/03 03:29PM
>>>
Dear Mr. Kovacich,
I received your voice mail concerning some questions about the certification report. I wasn't sure if you had received my message and
was wondering how the closure/certification report is coming along. Please call or email me any questions that you have and update me on activities.

Thank you,
Kara Reynolds
419-373-3065

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 5/2/03 1:59PM
Subject: Campbell Soup Napoleon Contacts

Kara,

Per James' request I have provided the following list of contacts:

Dr. Osman M. Aly
Consultant - Environmental Affairs
Campbell Soup Supply Company L.L.C.
Campbell Place- Box 217
Camden, NJ 08103-1799
856.968.4423 Phone

Michael Maringer
Manager Services and Utilities
Campbell Soup Supply Company
1273 State Route #10
Napoleon, Ohio 43545

419.599.6637

Michael Kovacich
Senior Hydrogeologist
GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

734.213.5024 Direct
734.213.5008 Fax

Tesha Yielding
Project Engineer
GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

734.213.4068 Direct
734.213.5008 Fax

Please do not heistate to give me call if you have any questions.

Sincerely,

Mike

Henry County
Campbell's Soup Gen.

Campbell Soup, Napoleon Plant
RCRA Closure Plan
Conference Call Meeting Agenda
May 2, 2003 10:30 AM

- **OVERVIEW**
- **INTRODUCTIONS**
- **INVESTIGATION**
  - **Source**
    - **Former holding pit**
    - **Sand was mixed with spent solvents prior to offsite disposal**
  - **Soil Investigation Phases**
    - **Original sample grid December 1999**
    - **Expanded soil investigation May 2001**
  - **Groundwater Investigation August 2002**
    - **Three monitoring wells**
    - **Low groundwater yield**
    - **VOCs and SVOCs were not detected**
- **REMEDIATION**
  - **Thermal desorption**
    - **Successful treated 5,000 tons of soil for VOCs to non detect**
    - **In some areas, treatment did not reduce concentrations of SVOCs below GCNs after one pass through the system.**
  - **Source of high SVOC concentrations**
    - **Roofing materials, roofing felts and tar**
  - **Petitioned the Ohio EPA for approval of offsite disposal**
    - **Request was approved**
    - **Approximately 3,800 tons of soil was disposed of at the Williams Co Landfill**
    - **400-600 tons of treated soil are scheduled for offsite disposal at the Henry County Landfill, pending approval from the Ohio EPA for use as alternate daily cover.**
  - **Confirmation Samples**
    - **19 confirmation samples**
    - **Additional excavations**
    - **All confirmation samples below GCNs**

- **CLOSURE STRATEGY**
    - **Risk Based Statistical Closure**
        - **Worked with Ohio EPA toxicologist to develop strategy**
        - **Ohio EPA approved strategy**
        - **The site meets criteria for unrestricted closure**
- **FINAL TASKS**
    - **Transport remaining treated soil offsite to Henry County Landfill**
        - **Pending Approval from Ohio EPA Director**
    - **Complete Certification Report**
        - **Currently in progress**
        - **Due to Ohio EPA 60 days after field work is complete**

From: James Moseley
To: Michael Kovacich
Date: 4/29/03 4:40PM
Subject: Re: Campbell Soup Conference Call

That sounds good, call us at Mike's phone, 419-373-3075.

Have a good evening.
James

>>> "Michael Kovacich" <mkovacich@geotransinc.com> 04/29/2003 4:35:48 PM >>>
James,

Dr. Aly and Michael Maringer will be available for a conference call on Friday at 10:30 AM. Tesha and I will coordinate the call from our office. Please let me know what number we should use to reach you on Friday. We will provide a meeting agenda for your review on Thursday prior to the meeting.

Please give me a call if you have any questions,

Mike

CC: Kara Reynolds; Michael Terpinski; o.aly@worldnet.att.net; osman_aly@campbellsoup.com

Henry County - Campbell's Soup General

GeoTrans, Inc.
A TETRA TECH COMPANY
710 Avis Drive
Ann Arbor, MI 48108
www.geotransinc.com
734-213-2204 FAX 734-213-5008

April 25, 2003

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APR 28 2003
OHIO E.P.A.
N.W.D.O.

Thomas Poffenbarger, P.E.
Division of Surface Water
Ohio Environmental Protection Agency
347 North Dunbridge Road
Bowling Green, OH 43402

Re: Follow-up Report
Discharge at Campbell Soup WWTP, Napoleon Facility

Dear Mr. Poffenbarger:

Discharge of field generated wastewater to the Campbell Soup Napoleon WWTP occurred during implementation of the *RCRA Site Closure Plan, Former Holding Pit Unit,* (Closure Plan) dated May 24, 2002. The following correspondence documents the discharge plan and the Ohio Environmental Protection Agency's (Ohio EPA) approval of the discharge:

- *Request for Permission to Discharge,* November 11, 2002, submitted by GeoTrans, Inc.
- *Addendum to November 11, 2002, Request for Permission to Discharge*, November 14, 2002, submitted by GeoTrans, Inc.
- Approval of Discharge Plan per Ohio EPA correspondence dated November 18, 2002.
- *Request to Change Discharge Procedures,* March 19, 2003, submitted by GeoTrans, Inc.
- Approval of Change in Discharge Procedures per Ohio EPA correspondence dated March 25, 2003.

This letter formally documents the discharges to the Campbell Soup Napoleon WWTP that occurred during implementation of the Closure Plan.

Per the approved discharge plan, perched water encountered during excavation activities was collected within the excavation and pumped to an on-site frac tank. Perched water within the excavation was pumped to the on-site frac tank (capacity 6,500 gallons) on February 28, 2002. Per the approved discharge plan one composite sample was collected from the frac tank.

The discharge plan was modified per the above correspondence, allowing Campbell to discharge perched water from the excavation directly to the head of the WWTP. As stated in GeoTrans *Request to Change Discharge Procedures* approximately 15,000 gallons of perched water was contained within the excavation. This water was pumped directly to a manhole located upstream of the head of the WWTP on March 25, 2003. On March 27, 2003, the water within the frac tank was discharged to a manhole located upstream of the head of the WWTP. Following de-watering activities additional perched water and runoff accumulated within the excavation. Therefore, a

final discharge event from the excavation to a manhole prior to the head of the WWTP occurred on April 7, 2003.

Table 1 contains the analytical data, which summarizes all perched water samples taken during investigation and remediation activities. Appendix A documents the laboratory report and chain of custody for the sample obtained from the frac tank, the laboratory report and chain of custody for the investigation samples are included in the Closure Plan. A summary of discharge durations is provided in Table 2. All discharge events were regulated at 40 gallons per minute. The total estimated volume of water discharged to the WWTP is approximately 29,000 gallons.

If you have any further questions or concerns, please call me at 734-213-5024.

Sincerely,

Michael Kovacich
Senior Hydrogeologist

Tesha Yielding
Project Engineer

Attachments

Copy: James Moseley, Ohio EPA NWDO
Dr. Osman Aly, Campbell Soup
Mike Maringer, Campbell Soup

P:\Projects\Campbell Soup\Remediation\WWTP Discharge Follow-up Report.doc

Table 1
Perched Water Analytical Results
Campbell Soup Former Holding Pit
RCRA Closure Plan Implementation

Soil Boring	PB-01-33	PB-01-34	PB-01-35	PB-01-45	PB-01-46	Frac Tank #1	Maximum Concentration Allowed in Field Generated Wastewater, Approved by Ohio EPA 11/18/02	Maximum Detectable Concentration (ug/L)	Outside Mixing Zone Maximum - OMZM (ug/L)	Estimated WWTP Influent (ug/L)*
Depth (feet)	11-16	11.5-16.5	11-16	11-16	11-16					
Collection Date	23-May-01	23-May-01	23-May-01	24-May-01	24-May-01	02/28/03				
Lab ID	NAL00125-029	NAL00125-028	NAL00125-030	NAL00125-067	NAL00125-068	BB09261				
Matrix	water (µg/l)	water (µg/l)	water (µg/l)	water (µg/L)	water (µg/L)	water (µg/L)				
Chemicals Of Concern										
VOCs										
Benzene	6.8	8.8	1.5	3.4	1	3	47,362	9	700	0.1
Bromomethane	ND	ND	ND	ND	ND	ND	2,571	ND	38	0
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	13,532,000	ND	200,000	0
Chloroform	ND	ND	ND	ND	ND	ND	87,958	ND	1,300	0
Chloromethane	ND	ND	ND	ND	ND	ND	NA	ND	NA	0
Ethylbenzene	70	170	11	160	19	86	37,213	170	550	2.0
Isopropylbenzene	```	12	ND	17	2.6	8	2,909	17	43	0.2
Methylene Chloride	ND	ND	ND	ND	ND	ND	744,260	ND	11,000	0
Methyl 4,-2-Propanone (MIBK)	65	2.4	ND	ND	3.5	80	NA	80	NA	0.9
n-Butylbenzene	40	6.2	ND	43	ND	20	NA	43	NA	0.5
n-Propylbenzene	33	19	ND	32	ND	13	NA	33	NA	0.4
p-Isopropyltoluene	ND	3.3	ND	21	ND	ND	NA	21	NA	0.2
sec-Butylbenzene	23	6.8	ND	16	ND	ND	NA	23	NA	0.3
Styrene	ND	1	ND	ND	ND	ND	19,621	1	290	0.0
tert-Butylbenzene	3.8	ND	ND	2.9	2.9	ND	NA	4	NA	0.0
Toluene	ND	ND	ND	1	ND	3	37,890	3	560	0.0
Trichloroethylene	ND	ND	ND	ND	ND	ND	135,320	ND	2,000	0
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	NA	ND	NA	0
1,2,4-Trimethylbenzene	450	81	17	400	45	280	9,472	450	140	5.3
1,3,5-Trimethlybenzene	4.1	6.6	2.1	58	9.1	36	15,562	58	230	0.7
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	15,562	ND	230	0
Xylenes	43.9	71	9.2	271	42	310	16,238	310	240	3.7
SVOCs										
Acenaphthene	ND	ND	ND	ND	ND	ND	1,286	ND	19	0
Anthracene	ND	ND	ND	ND	ND	ND	12	ND	0.18	0
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	2,842	ND	42	0
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	37	ND	0.5	0
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	1,556	ND	23	0
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	NA	ND	NA	0
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	NA	ND	NA	0
Chrysene	ND	ND	ND	ND	ND	ND	2,842	ND	42	0
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	3,857	ND	57	0
Fluoranthene	ND	ND	ND	ND	ND	ND	250	ND	3.7	0
Fluorene	ND	ND	ND	ND	ND	ND	7,443	ND	110	0
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	NA	ND	NA	0
2-Methylnaphthalene	ND	ND	ND	13	ND	ND	NA	13	NA	0.2
Naphthalene	53	7.7	ND	76	4	37	11,502	76	170	0.9
Phenanthrene	ND	ND	ND	ND	ND	ND	2,097	ND	31	0
Pyrene	ND	ND	ND	ND	ND	ND	2,842	ND	42	0

Notes:
NA = Not Available, ND = Non-Detect
*Revised from previous submittals per actual discharge rate of 40 gpm

Table 2
Duration of Discharge
Campbell Soup Napoleon WWTP
RCRA Closure Plan Implemetation

Date	Discharge Time Start	Dicharge Time End	Duration (min)	Discharge Rate (gpm)	Estimated Volume (gal)	Comments
3/25/2003	10:00 AM	5:00 PM	420	40	16,800	Pumped directly from excavation.
3/27/2003	2:05 PM	4:43 PM	158	40	6,320	Discharge of water stored in frac tank.
4/7/2003	10:00AM	12:30 PM	150	40	6,000	Pumped directly from excavation.
				TOTAL	**29,120**	

APPENDIX A

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 02/28/03
Submit Date: 02/28/03
Report Date: 03/04/03

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **64346**
BA Sample ID: **BB09261**

Project Name: **Campbell Remediation**
Project Number: **P896.105**
Sample ID: **Frac Tank #1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Acenaphthylene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Anthracene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Benzo(a)anthracene	**Not detected**	ug/L	1	EPA 625	RG	03/02/03
Benzo(a)pyrene	**Not detected**	ug/L	2	EPA 625	RG	03/02/03
Benzo(b)fluoranthene	**Not detected**	ug/L	2	EPA 625	RG	03/02/03
Benzo(ghi)perylene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Benzo(k)fluoranthene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Benzoic acid	**Not detected**	ug/L	50	EPA 625	RG	03/02/03
Benzyl alcohol	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Bis(2-chloroethoxy)methane	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Bis(2-chloroethyl)ether	**Not detected**	ug/L	1	EPA 625	RG	03/02/03
Bis(2-chloroisopropyl)ether	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
4-Bromophenyl phenyl ether	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Butyl benzyl phthalate	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Carbazole	**Not detected**	ug/L	10	EPA 625	RG	03/02/03
4-Chloro-3-methylphenol	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
4-Chloroaniline	**Not detected**	ug/L	20	EPA 625	RG	03/02/03
2-Chloronaphthalene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
2-Chlorophenol	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
4-Chlorophenyl phenyl ether	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Chrysene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Di-n-butylphthalate	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Di-n-octylphthalate	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Dibenzo(a,h)anthracene	**Not detected**	ug/L	2	EPA 625	RG	03/02/03
Dibenzofuran	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
1,2-Dichlorobenzene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
1,3-Dichlorobenzene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
1,4-Dichlorobenzene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 02/28/03
Submit Date: 02/28/03
Report Date: 03/04/03

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **64346**
BA Sample ID: **BB09261**

Project Name: **Campbell Remediation**
Project Number: **P896.105**
Sample ID: **Frac Tank #1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,4-Dichlorophenol	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
2,6-Dichlorophenol	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Diethylphthalate	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
2,4-Dimethylphenol	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Dimethylphthalate	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
4,6-Dinitro-2-methylphenol	**Not detected**	ug/L	20	EPA 625	RG	03/02/03
2,4-Dinitrophenol	**Not detected**	ug/L	20	EPA 625	RG	03/02/03
2,4-Dinitrotoluene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
2,6-Dinitrotoluene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
1,2-Diphenylhydrazine	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Fluoranthene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Fluorene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Hexachlorobenzene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Hexachlorobutadiene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Hexachlorocyclopentadiene	**Not detected**	ug/L	2	EPA 625	RG	03/02/03
Hexachloroethane	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Indeno(1,2,3)pyrene	**Not detected**	ug/L	2	EPA 625	RG	03/02/03
Isophorone	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
2-Methylnaphthalene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
2-Methylphenol (o-Cresol)	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
3&4-Methylphenol(m&p-Cresol)	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
N-Nitrosodi-n-propylamine	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
N-Nitrosodimethylamine	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
N-Nitrosodiphenylamine	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Naphthalene	**37**	ug/L	5	EPA 625	RG	03/02/03
2-Nitroaniline	**Not detected**	ug/L	20	EPA 625	RG	03/02/03
3-Nitroaniline	**Not detected**	ug/L	20	EPA 625	RG	03/02/03
4-Nitroaniline	**Not detected**	ug/L	20	EPA 625	RG	03/02/03
Nitrobenzene	**Not detected**	ug/L	2	EPA 625	RG	03/02/03
2-Nitrophenol	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
4-Nitrophenol	**Not detected**	ug/L	20	EPA 625	RG	03/02/03
Pentachlorophenol	**Not detected**	ug/L	20	EPA 625	RG	03/02/03

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 02/28/03
Submit Date: 02/28/03
Report Date: 03/04/03

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **64346**
BA Sample ID: **BB09261**

Project Name: **Campbell Remediation**
Project Number: **P896.105**
Sample ID: **Frac Tank #1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Phenanthrene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Phenol	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
Pyrene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
1,2,4-Trichlorobenzene	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
2,4,5-Trichlorophenol	**Not detected**	ug/L	5	EPA 625	RG	03/02/03
2,4,6-Trichlorophenol	**Not detected**	ug/L	4	EPA 625	RG	03/02/03
BNA (extraction)	**Extracted**			3510/3550	ST	03/02/03
Volatile Analysis						
Acetone	**Not detected**	ug/L	25	SW846 8260	CW	03/03/03
Acrylonitrile	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Benzene	**3**	ug/L	1	SW846 8260	CW	03/03/03
Bromobenzene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Bromochloromethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Bromodichloromethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Bromoform	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Bromomethane(Methyl Bromide)	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
2-Butanone (MEK)	**Not detected**	ug/L	5	SW846 8260	CW	03/03/03
Carbon disulfide	**Not detected**	ug/L	5	SW846 8260	CW	03/03/03
Carbon tetrachloride	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Chlorobenzene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Chloroethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Chloroform	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Chloromethane(Methyl Chloride)	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
2-Chlorotoluene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
4-Chlorotoluene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
cis-1,2-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
cis-1,3-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Dibromochloromethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,2-Dibromoethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Dibromomethane(Methylene Bromide)	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 02/28/03
Submit Date: 02/28/03
Report Date: 03/04/03

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **64346**
BA Sample ID: **BB09261**

Project Name: **Campbell Remediation**
Project Number: **P896.105**
Sample ID: **Frac Tank #1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,3-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,4-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Dichlorodifluoromethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,1-Dichloroethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,2-Dichloroethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,1-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,2-Dichloropropane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,1-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Diethyl ether	**Not detected**	ug/L	10	SW846 8260	CW	03/03/03
Ethyl benzene	**86**	ug/L	1	SW846 8260	CW	03/03/03
Hexachlorobutadiene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Hexachloroethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
2-Hexanone(Methyl Butyl Ketone)	**Not detected**	ug/L	5	SW846 8260	CW	03/03/03
Isopropylbenzene	**8**	ug/L	1	SW846 8260	CW	03/03/03
Methyl iodide(Iodomethane)	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/L	5	SW846 8260	CW	03/03/03
4-Methyl-2-pentanone(MIBK)	**80**	ug/L	5	SW846 8260	CW	03/03/03
Methylene chloride	**Not detected**	ug/L	5	SW846 8260	CW	03/03/03
2-Methylnaphthalene	**Not detected**	ug/L	5	SW846 8260	CW	03/03/03
n-Butylbenzene	**20**	ug/L	1	SW846 8260	CW	03/03/03
n-Propylbenzene	**13**	ug/L	1	SW846 8260	CW	03/03/03
Naphthalene	**69**	ug/L	5	SW846 8260	CW	03/03/03
p-Isopropyltoluene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
sec-Butylbenzne	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Styrene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
tert-Butylbenzene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,1,1,2-Tetrachloroethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,1,2,2-Tetrachloroethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Tetrachloroethene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Toluene	**3**	ug/L	1	SW846 8260	CW	03/03/03
trans-1,2-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 02/28/03
Submit Date: 02/28/03
Report Date: 03/04/03

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **64346**
BA Sample ID: **BB09261**

Project Name: **Campbell Remediation**
Project Number: **P896.105**
Sample ID: **Frac Tank #1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
trans-1,3-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
trans-1,4-Dichloro-2-butene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,2,3-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8260	CW	03/03/03
1,2,4-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8260	CW	03/03/03
1,1,1-Trichloroethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,1,2-Trichloroethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Trichloroethene	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Trichlorofluoromethane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,2,3-Trichloropropane	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
1,2,4-Trimethylbenzene	**280**	ug/L	1	SW846 8260	CW	03/03/03
1,3,5-Trimethylbenzene	**36**	ug/L	1	SW846 8260	CW	03/03/03
Vinyl chloride	**Not detected**	ug/L	1	SW846 8260	CW	03/03/03
Xylenes(total)	**310**	ug/L	3	SW846 8260	CW	03/03/03

DL=Detection Limit as recommended by MDEQ

Released by: 

Date: 3/4/03

Brighton Analytical, L.L.C.™

2105 Pless Drive
Brighton, MI 48114
Phone: 810-229-7575
Fax: 810-229-8650

BA PROJECT #: 64346

PAGE ___ OF ___

COMPANY NAME: GeoTrans
PROJECT NAME: Campbell Remediation
PROJECT NUMBER: P896.105
P. O. NUMBER: P896.105

ABBREVIATIONS FOR MATRIX
S = Solid
L = Liquid
DW = Drinking H2O
WW = Wastewater
O = Oil
P = Wipe
A = Air (Tedlar Bag)
F = Filter
T = Tube
M = Methanol

REQUESTED TURNAROUND: (circle one)
Rush: 1-3 business days (verify with lab & specify date needed)
Expedited: 5 business days
Standard: 10 business days

If RUSH, approved by: _____

Container Type & Quantity

Brighton ID #	Sample Description	Sampling Time	Sampling Date	VOA'S (PRES) Y N	HDPE UNPRESERVED	HDPE HNO3	HDPE H2SO4	HDPE NAOH	AMBER	GLASS H2SO4	GLASS, NO PRESERVATIVE	MEOH Preserved (Volatiles Lab Preserved)	Sample Matrix	FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTERED	VOCs - 8260B	SVOCs - 8270	Encore
BB 1) 9256	FL-29	4:00 pm	2/27								1	2	S		X	X	X
2) 57	SW-49	10:30	2/28								1	2			X	X	X
3) 58	FL-2	12.	2/28								1	2			X	X	X
4) 59	FL-20	12:20	2/28								1	2			X	X	X
5) 60	SW-46	12:45	2/28								1	2	2		X	X	X
6) 61	FracTank #1	1:40	2/28	2					1				L		X	X	
7)																	
8)																	
9)																	
10)																	
11)																	

REPORT RESULTS TO:
710 Avis Dr
Ann Arbor, MI
48108
Attn: Michael Kovacich
PHONE: 734 213 5024
FAX: 734 213 5008

Sample received within holding time? yes ☐ no ☐
For TCLP **ONLY** – Federal Limits ☐ Other ☐
Samples intact: yes ☐ no ☐ (if no, see belc
Note samples if not intact:
Headspace/bubbles in VOA'S? yes ☐ no ☐ n/a ☐
Sample containers and COC match? yes ☐ no ☐

Comments:
Preserve Encore with sodium bisulfate.
Sodium Bisulfate
METHANOL EPA 5035
(5) In Lab 2/28/03 WT

Temperature of Samples °C: 4

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	Tosha Yeldon		2/28/03		3				
2		Kathie Reed	2/28/03	3:00	4				

Henry County
Campbell's Soup General

GeoTrans, Inc.
A TETRA TECH COMPANY
710 Avis Drive
Ann Arbor, MI 48108
www.geotransinc.com
734-213-2204 FAX 734-213-5008

March 19, 2003

RECEIVED
MAR 24 2003
OHIO E.P.A
N.W.D.O

Thomas Poffenbarger, P.E.
Division of Surface Water
Ohio Environmental Protection Agency
347 North Dunbridge Road
Bowling Green, OH 43402

Re: Request to Change Discharge Procedures
RCRA Closure Plan Implementation
Campbell Soup WWTP, Napoleon Facility

Dear Mr. Poffenbarger:

In follow-up to our phone conversation on March 14, 2003, we are formally requesting permission to discharge wastewater generated during implementation of the *RCRA Site Closure Plan, Former Holding Pit Unit,* (Closure Plan) directly to the Campbell Napoleon Wastewater Treatment Plant (WWTP)

BACKGROUND

In a November 18, 2002 correspondence, the Ohio Environmental Protection Agency (Ohio EPA) approved Campbell Soup to discharge field generated wastewater to the Napoleon WWTP during implementation of the Closure Plan. The approved plan for discharge required collection of all field generated wastewater in a frac tank on-site and confirmation sampling of the water prior to discharge. The approved plan requires discharge of the field generated wastewater to the head of the WWTP to obtain mixing with the WWTP influent and to subject the field generated wastewater to all treatment processes.

Approval of the analytical concentrations was based on a mass balance concentration between the field generated wastewater (not expected to exceed 56,000 gallons during field activities) and the influent wastewater (approximately 4 million gallons per day). Based on all investigation and confirmation samples of the perched water within the mound, the concentrations of the chemicals of concerns in the WWTP influent are estimated to be orders of magnitude lower than the outside mixing zone maximum (OMZM) values during discharge of the field generated wastewater.

Five samples from the perched water within the mound were collected during the investigation. During implementation of the Closure Plan one sample of the perched water was collected. Concentrations of the chemicals of concern in the perched water are shown in Table 1. The analytical data has demonstrated consistent detection of approximately 14 chemicals of concern, with consistent concentrations throughout the sample set. In addition, the concentrations of the select chemicals of concern have consistently remained orders of magnitude below the approved discharge values (Table 1).

CURRENT STATUS

Excavation activities were completed at the site on February 28, 2003. During the last phase of investigation approximately 15,000 gallons of perched water was encountered, and is currently contained within the excavation. A portion of this water was pumped to the on-site frac tank (6,500 gallons). This correspondence serves as formal notification, per the approved discharge plan, that the water in the frac tank will be discharged to the WWTP.

Due to the thawing weather conditions there is additional water contained in low spots within the mound from rainwater and snow melt. To expedite closing this site, which requires backfilling the excavation, Campbell wishes to discharge the water within the mound directly to the WWTP. This will expedite dewatering of the mound by avoiding mobing of a vacuum truck to transport the water from the tank to the head of the WWTP and time delays to collect and receive analytical results. The perched water has consistently demonstrated compliance with the approved discharge values (Table 1). Therefore, we request permission to discharge the field generated wastewater directly to the head of the WWTP.

If you have any further questions or concerns, please call me at 734-213-5024.

Sincerely,

Michael Kovacich
Senior Hydrogeologist

Tesha Yielding
Project Engineer

Attachments

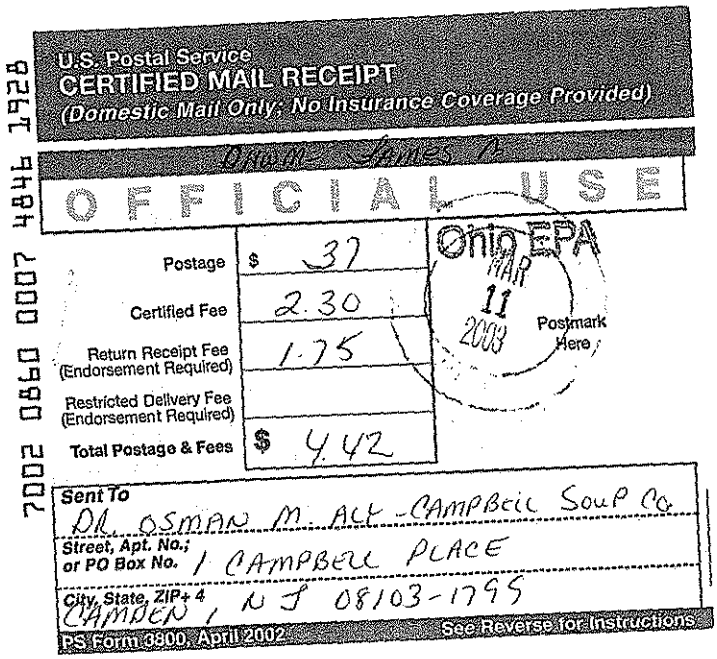
Copy: James Moseley, Ohio EPA NWDO
Dr. Osman Aly, Campbell Soup
Mike Maringer, Campbell Soup

P:\Projects\Campbell Soup\permission to discharge2.doc

Table 1
Perched Water Analytical Results
Campbell Soup Former Holding Pit
RCRA Closure Plan Implementation

Soil Boring	PB-01-33	PB-01-34	PB-01-35	PB-01-45	PB-01-46	Frac Tank #1	Maximum Concentration Allowed in Field Generated Wastewater, Approved by Ohio EPA 11/18/02	Maximum Detectable Concentration (ug/L)	Outside Mixing Zone Maximum - OMZM (ug/L)	Estimated WWTP Influent (ug/L)
Depth (feet)	11-16	11.5-16.5	11-16	11-16	11-16					
Collection Date	23-May-01	23-May-01	23-May-01	24-May-01	24-May-01	02/28/03				
Lab ID	NAL00125-029	NAL00125-028	NAL00125-030	NAL00125-067	NAL00125-068	BB09261				
Matrix	*water (µg/l)*	*water (µg/l)*	*water (µg/l)*	*water (µg/L)*	*water (µg/L)*	*water (µg/L)*				
Chemicals Of Concern										
VOCs										
Benzene	6.8	8.8	1.5	3.4	1	3	47,362	9	700	0.130
Bromomethane	ND	ND	ND	ND	ND	ND	2,571	ND	38	0
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	13,532,000	ND	200,000	0
Chloroform	ND	ND	ND	ND	ND	ND	87,958	ND	1,300	0
Chloromethane	ND	ND	ND	ND	ND	ND	NA	ND	NA	0
Ethylbenzene	70	170	11	160	19	86	37,213	170	550	2.513
Isopropylbenzene	```	12	ND	17	2.6	8	2,909	17	43	0.251
Methylene Chloride	ND	ND	ND	ND	ND	ND	744,260	ND	11,000	0
Methyl 4,-2-Propanone (MIBK)	65	2.4	ND	ND	3.5	80	NA	80	NA	1.182
n-Butylbenzene	40	6.2	ND	43	ND	20	NA	43	NA	0.636
n-Propylbenzene	33	19	ND	32	ND	13	NA	33	NA	0.488
p-Isopropyltoluene	ND	3.3	ND	21	ND	ND	NA	21	NA	0.310
sec-Butylbenzene	23	6.8	ND	16	ND	ND	NA	23	NA	0.340
Styrene	ND	1	ND	ND	ND	ND	19,621	1	290	0.015
tert-Butylbenzene	3.8	ND	ND	2.9	2.9	ND	NA	4	NA	0.056
Toluene	ND	ND	ND	1	ND	3	37,890	3	560	0.044
Trichloroethylene	ND	ND	ND	ND	ND	ND	135,320	ND	2,000	0
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	NA	ND	NA	0
1,2,4-Trimethylbenzene	450	81	17	400	45	280	9,472	450	140	6.651
1,3,5-Trimethlybenzene	4.1	6.6	2.1	58	9.1	36	15,562	58	230	0.857
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	15,562	ND	230	0
Xylenes	43.9	71	9.2	271	42	310	16,238	310	240	4.582
SVOCs										
Acenaphthene	ND	ND	ND	ND	ND	ND	1,286	ND	19	0
Anthracene	ND	ND	ND	ND	ND	ND	12	ND	0.18	0
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	2,842	ND	42	0
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	37	ND	0.5	0
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	1,556	ND	23	0
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	NA	ND	NA	0
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	NA	ND	NA	0
Chrysene	ND	ND	ND	ND	ND	ND	2,842	ND	42	0
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	3,857	ND	57	0
Fluoranthene	ND	ND	ND	ND	ND	ND	250	ND	3.7	0
Fluorene	ND	ND	ND	ND	ND	ND	7,443	ND	110	0
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	NA	ND	NA	0
2-Methylnaphthalene	ND	ND	ND	13	ND	ND	NA	13	NA	0.192
Naphthalene	53	7.7	ND	76	4	37	11,502	76	170	1.123
Phenanthrene	ND	ND	ND	ND	ND	ND	2,097	ND	31	0
Pyrene	ND	ND	ND	ND	ND	ND	2,842	ND	42	0

Notes:
NA = Not Available, ND = Non-Detect



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Sent To: DR. OSMAN M. ALY - CAMPBELL SOUP CO.
Street, Apt. No.; or PO Box No.: 1 CAMPBELL PLACE
City, State, ZIP+4: CAMDEN, NJ 08103-1795

PS Form 3800, April 2002 — See Reverse for Instructions

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DAWN T. MOSELEY

1. Article Addressed to:
DR. OSMAN M. ALY
ENVIRONMENTAL COORDINATOR
CAMPBELL SOUP COMPANY
1 CAMPBELL PLACE
CAMDEN, NJ 08103-1795

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PS Form 3811, August 2001 — Domestic Return Receipt — 102595-02-M-0835

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

March 11, 2003

CERTIFIED MAIL

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Minor Change to Approved Closure Plan
Campbell Soup Company
Former Holding Pit
USEPA ID# OHD005419171

Dear Dr. Aly:

On March 7, 2003, Ohio EPA received a request for modification to an approved closure plan for Campbell Soup Company located at 1273 State Route 110, Napoleon, Ohio. The original closure plan was approved on August 1, 2002. The requested modification meets the criteria for submission and approval of an amended closure plan as detailed in Ohio Administrative Code rule 3745-66-12 (C)(3).

The requested amendment to the approved closure plan is as follows:

- The third paragraph on Page 20 of the approved closure plan is hereby amended to add the following at the end of the paragraph: "On-site treatment using medium temperature thermal desorption will be used to treat up to 3,300 cubic yards (5,000 tons)."

- The first paragraph on page 22 continued from page 21 of the approved closure plan is hereby amended to add the following at the end of the paragraph: "A total of 3,300 yards (approximately 5,000 tons) will be treated using medium temperature thermal desorption. If additional contaminated soils are encountered during the site excavation, these soils will be removed and properly disposed off-site at a licensed solid waste landfill."

- Section 9.2 of the approved closure plan is hereby amended to add the following at the end of the section: "A non-hazardous waste manifest, a bill of lading, or other appropriate documentation will be generated for all soil removed from the site."

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- The second sentence of the last paragraph on page 29 of the approved closure plan is hereby replaced with the following: "The general strategy for meeting the cleanup numbers at the site involves removal through excavation and on-site treatment using medium temperature thermal desorption and offsite disposal of contaminated soil encountered above 3,300 yards (approximately 5000 tons) or any treated soil that does not meet the cleanup criteria following one pass through the treatment system."

With this letter, Ohio EPA approves the above referenced modification to the approved closure plan, submitted pursuant to Ohio Administrative Code Chapter 3745-66-12.

If you have any questions concerning this action, please contact James Moseley at Ohio EPA's Northwest District Office by telephone at (419) 373-3015.

Sincerely,

Edwin J. Hammett
District Chief

/llr

pc: Pamela Allen, Manager, ITTSS, DHWM, CO
Jeremy Carroll, Supervisor, Engineering Unit, DHWM, CO
Michael Terpinski, Supervisor, DHWM, NWDO
James Moseley, DHWM, NWDO
DHWM-NWDO File: Campbell Soup, Waste Pit

Henry County
Campell's Soup
General

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Director – Environmental Affairs

Telephone #: 609-968-4423
Fax #: 609-968-2808/2809

March 6, 2003

Mr. James Moseley
Ohio Environmental Protection Agency – NWDO
347 North Dunbridge Rd.
Bowling Green, Ohio 43402

RECEIVED
MAR 07 2003
OHIO E.P.A.
N.W.D.O.

Re: Minor Modification to RCRA Site Closure Plan
Former Holding Pit, Campbell Soup, Napoleon, Ohio

Dear Mr. Moseley:

Campbell Soup Supply Company (Campbell) has prepared this minor modification to the *RCRA Site Closure Plan (Closure Plan)* for the former holding pit unit in Napoleon, Ohio. A change in the closure plan activities has become necessary, due to changing site conditions. We have provided this document to explain the additional proposed activities to close this site and our proposed minor changes to the *Closure Plan*, dated May 24, 2002.

BACKGROUND

As outlined in Section 7.0 of the Closure Plan, thermal desorption treatment was chosen to remediate this site. Since beginning thermal treatment of the soils on December 12, 2002, the process has effectively destroyed VOCs in the soil. However, the thermal process did not completely destroy all of the SVOCs. For some portions of the elevated area, treated soil does not meet the unrestricted use criteria (clean-up criteria) established for the site.

Verification samples VR-03-04 and VR-03-05 collected from post treatment stockpiles #4 and #5, respectively, exhibit the highest concentrations of SVOCs and exceed the cleanup criteria established for the site. A potential source of the elevated SVOCs is roofing material (felts, flashing, and tar) that was encountered in the western portion of the excavation. Partially combusted pieces of roofing material were identified in post treatment stockpiles #4 and #5. Once the roofing material was identified, excavation activities were moved from the western portion of the elevated area, to the east, in the vicinity of the former holding pit. No roofing materials have been identified in this area. SVOC concentrations decreased in each post treatment stockpile sample, once excavation activities were moved to the former holding pit area.

Approximately 3,250 tons of additional contaminated soil has been encountered during excavation activities. The additional contaminated soil is attributable to the presence of contamination at higher elevations then expected, and in areas beyond the extent estimated during the remedial investigation. Approximately 1,000 additional tons of SVOC contaminated soil was encountered at an elevation of 685 feet, 2-feet above the closure plan delineation. The remaining 2,250 additional tons were primarily encountered along the western and southern portions of the elevated area were the ramp was constructed and where the ditch (old access road) is present.

CURRENT PROJECT STATUS

Thermal processing of the soil ceased on February 20, 2003, after approximately 5,750 tons of soil had been processed (approximately 4,950 tons of excavated soil and 800 tons of mixing soil). Thermal treatment was suspended for the following reasons:

- Treated soil containing roofing materials did not meet the clean-up criteria following one pass through the treatment system;
- Increase in the quantity of soil that needs to be removed from the site due to contamination extending beyond the limits of the delineation line;
- Propane use increased significantly during treatment due to high soil moisture content attributable unusually heavy rain and snow melt; and
- Propane costs increased significantly during the project.

Currently, we estimate that 3,000 tons of contaminated soil will be excavated from the elevated area (2,000 tons of SVOC soils and 1000 tons of soil from the former holding pit area). In addition, we estimate that there is approximately 500 tons of soil stockpiled at the thermal plant staging area. Therefore, approximately 3,500 tons of untreated soil still requires treatment or disposal.

Through discussions with the Ohio EPA toxicologist, we have determined that Campbell will use post closure conditions to close the site. As outlined in our consultant's (GeoTrans, Inc.) correspondence dated January 15, 2003, a statistical approach using GCN's will be used to obtain unrestricted closure of this site. When the results from samples collected from post treatment stockpiles #4, #5 and #11 are included in the statistical analysis, the site does not meet the unrestricted use criteria. In order to meet unrestricted criteria, these stockpiles (approximately 1,200 tons) will require additional treatment or disposal.

PROPOSED MINOR MODIFICATION TO CLOSURE PLAN

Campbell proposes disposing the soil offsite at two separate licensed facilities. Approximately 3,500 tons of untreated contaminated soil will be disposed offsite at the Williams County Solid Waste Landfill. The 1,200 tons of treated soil from stockpiles #4, #5 and #11 will disposed of off site, as daily cover at the Henry County Solid Waste Landfill.

In order to receive approval for offsite disposal of contaminated soil from the North West District Office, we request that the following minor modifications be made to the *Closure Plan*:

Page 20, third paragraph, please add the following sentence as the second sentence in that paragraph:

> On site treatment using medium thermal desorption will be used to treat up to 3,300 cubic yards (5,000 tons).

Page 22, first paragraph continued from page 21, please add the following sentences as the third and fourth sentences in that paragraph:

> A total of 3,300 yards (approximately 5,000 tons) will be treated using medium temperature desorption. If additional contaminated soils are encountered during the site excavation, these soils will be disposed offsite at an approved solid waste landfill.

Page 26, please add the following section following Section 9.2:

9.2 Offsite Disposal of Soil
Non hazardous waste manifest, bill of lading or other appropriate documentation will be generated for all soil removed from the site.

Page 29, last paragraph, please replace the second sentence with the following sentence:

The general strategy for meeting the cleanup numbers at this site involves removal through excavation and on-site treatment using medium thermal treatment thermal desorption and offsite disposal of contaminated soil encountered above 3,300 yards (approximately 5000 tons) or any treated soil that does not meet the cleanup criteria following one pass through the treatment system.

SCHEDULE

We are not proposing any changes to the current schedule as presented in our January 13, 2003 and February 10, 2003 letters to the Ohio EPA.

If you have any questions or wish to discuss any aspect regarding this minor modification to the *Closure Plan*, please do not hesitate to call me at 856 968-4423 or Michael Kovacich at 734-213-5024.

Sincerely,

Osman M. Aly, Ph. D.
Consultant

copy: Mr. Michael Maringer, Campbell
Mr. Michael Kovacich, GeoTrans
Mr. Robert Shober, Campbell

p:/projects/campbell soup/documents/closure plan minor mod.doc

Henry County
Campbell 3 Corp
General

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

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February 20, 2003

ENTERED DIRECTOR'S JOURNAL
FEB 20 2003
OHIO E.P.A.

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Closure Period Extension
Campbell Soup Company
Former Holding Pit
USEPA/OEPA ID# OHD005419171

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.
By: Jona L Clemente Date: Feb, 20 03

Dear Dr. Aly:

On January 13, 2003, the Campbell Soup Company (Campbell), located at 1273 State Route 110, Napoleon, Ohio, submitted a request for an extension to the closure period specified in the approved closure plan dated August 8, 2002, of ninety-three days, until May 1, 2003. The extension request was submitted pursuant to Ohio Administrative Code (OAC) rule 3745-66-13(B) as closure will require longer than the 180 day period specified in OAC rule 3745-66-13. Campbell has requested this extension because uncharacteristically warm and wet weather in December has resulted in delays due to the need to construct temporary roads for support of heavy equipment. Several instances of equipment failure have also hampered Campbell's ability to meet the deadlines in the closure plan.

My staff reviewed your request for an extension to the closure period and recommends that the extension be granted per OAC rule 3745-66-13(B). I concur and am therefore granting this extension request. This extension is being granted for the above referenced closure plan and expires on May 1, 2003.

Campbell shall continue to take all steps to prevent a threat to human health and the environment from the unclosed, but inactive waste management unit per OAC rule 3745-66-13(B)(2).

Please be advised that approval of this closure extension request does not release Campbell from any responsibilities as required under the Hazardous and Solid Waste Amendments of

1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

You are hereby notified that this action of the Director of Environmental Protection is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the commission within 30 days after notice of the director's action. Notice of the filing of the appeal shall be filed with the director within three days after the appeal is filed with the commission. An appeal may be filed with the commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

When closure is completed, OAC rule 3745-66-15 requires the owner or operator of a facility to submit to the director of Ohio EPA, certification by the owner or operator and an independent, registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan. The certification shall follow the format specified in OAC rule 3745-50-42(D), and should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Regulatory and Information Services Section, P.O. Box 1049, Columbus, Ohio 43216-1049.

Sincerely,

Christopher Jones
Director

cc: Pamela Allen, DHWM Central File, Ohio EPA
Harriet Croke, Ohio Permit Section, USEPA - Region V
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA
James Moseley, NWDO, Ohio EPA
Michael Kovacich, GeoTrans, Inc

ec Michael Terpinski, NWDO, Ohio EPA
James Moseley NWDO, Ohio EPA

Henry County
Campbell's Soup
General

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

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FEB 12 2003
OHIO E.P.A.
N.W.D.O.

February 10, 2003

Via Airborne Express

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
Attn: Mr. James Moseley
Division of Hazardous Waste Management
347 Dunbridge Road
Bowling Green, Ohio 43402

RE: Campbell Soup Company, Napoleon Site
Amendment - Revision to RCRA Schedule to Closure

Dear Mr. Moseley:

This letter is intended as an amendment to our January 13, 2003, letter regarding a revision to RCRA schedule for closure at the Napoleon Site. In the letter, we revised the last four dates listed in the RCRA closure plan. February 18, 2003 was listed for completion of soil excavation and treatment as well as collection of verification samples. February 18, 2003 was not our intended date. To better coincide with the schedule presented in the RCRA closure plan and the subsequent activities presented in the January 13, 2003 correspondence, we are requesting the following revision to the schedule:

Complete Excavation and Soil Treatment and Collect Closure Verification Samples	March 17, 2003

If you have any questions regarding this request, please do not hesitate to call me at 856 968-4423, or contact Mr. Michael Kovacich at 734 213-5024.

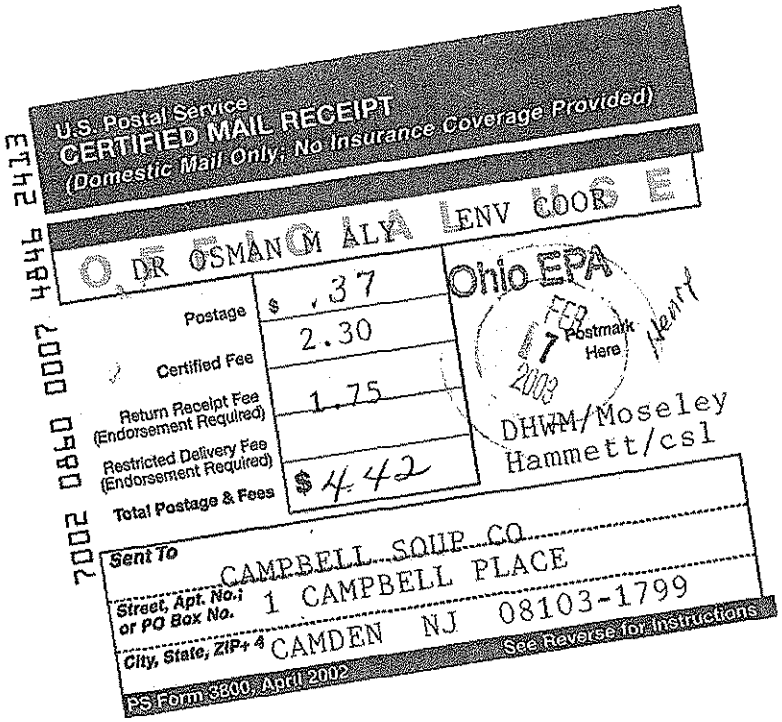
Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

OMA/lgm

Cc: R. Shober
M. Kovacich, GeoTrans, Inc.



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1. Article Addressed to:

DR OSMAN M ALY ENV CO
CAMPBELL SOUP CO
1 CAMPBELL PLACE
CAMDEN NJ 08103-1799

DHWM/Mosely-Hammett/csl

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OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

February 6, 2003

CERTIFIED MAIL

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Minor Change to Approved Closure Plan
Campbell Soup Company
Former Holding Pit
USEPA ID# OHD005419171

Dear Dr. Aly:

On January 29, 2003, Ohio EPA received a request for modification(s) to an approved closure plan for Campbell Soup Company located at 1273 State Route 110, Napoleon, Ohio. The original closure plan was approved on August 1, 2002. The requested modification meets the criteria for submission and approval of an amended closure plan as detailed in Ohio Administrative Code rule 3745-66-12 (C)(3).

The requested amendment to the approved closure plan is as follows:

> Page 21 of the approved closure plan is hereby modified to state: "Small amounts of rejected material that cannot be adequately treated shall be taken to a licensed solid waste landfill and be properly disposed. Documentation shall be provided in the form of bills of lading or other equivalent documentation and shall be included in the certification report required by the approved closure plan."

With this letter, Ohio EPA approves the above referenced modification to the approved closure plan, submitted pursuant to Ohio Administrative Code Chapter 3745-66-12.

If you have any questions concerning this action, please contact James Moseley at Ohio EPA's Northwest District Office by telephone at 419-373-3015.

Sincerely,

Edwin J Hammett
Chief Northwest District Office
Division of Hazardous Waste Management

/csl
cc: Pamela Allen, Manager, ITTSS, DHWM, CO
Jeremy Carroll, Supervisor, Engineering Unit, DHWM, CO
Michael Terpinski, Supervisor, DHWM, NWDO
File: Campbell Soup, Waste Pit

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OHIO EPA
State of Ohio Environmental Pro[illegible]ion Agency **Director[illegible]ffice Number**_____

COVER MEMO

( ) Director's Signature
( ) DRAFT - Governor's Signature
( ) Background Investigation Report - CONFIDENTIAL
( ) Assistant Director's Signature
( ) Deputy Director's Signature

Subject: (MCR# _____)

Prepared by: James Moseley Division: DHWM Date: 2/5/03

Blind Copies:

NECESSARY APPROVALS	APPROVED BY	DATE
( ) Assistant Director		__/__/__
( ) Deputy Director, Policy		__/__/__
( ) Deputy Director, Communication		__/__/__
( ) Deputy Director, Administration		__/__/__
( ) Legal		__/__/__
( ) Other		__/__/__
( ) Other		__/__/__

District Personnel Information

Approvals:		Date:
Supervisor	[signature]	2/5/03
Manager	[signature]	2/5/03
Assistant Dist. Chief		__/__/__
District Chief	[signature]	2/6/03
Other		__/__/__

Division Personnel Information

Approvals:		Date:
Unit Supervisor		__/__/__
Section Manager		__/__/__
Assistant Chief		__/__/__
Chief		__/__/__
Other		__/__/__

RETURN ALL SUPPORTING DOCUMENTS TO:

Name: _____ Division: _____

Document Name: _____ WPS Initials/Date: _____

Attachments: CC: ☐ Yes ☐ No BC: ☐ Yes ☐ No

Other: _____

INTER-OFFICE COMMUNICATION

TO: Ed Hammet, District Chief, NWDO

FROM: James Moseley through Michael Terpinski, DHWM, NWDO

SUBJECT: *Approval of minor modification to closure plan*

DATE: February 5, 2003

On January 29, 2003, Campbell Soup Company submitted a request to modify their closure plan to allow small amounts of reject material to be taken to a licensed solid waste landfill. The approved closure plan states that all soil material above the levels specified in the closure plan would be treated on site. This has proved to be problematic for a small amount of the material which is mixed with other solid waste debris. The presence of this debris prevents the material from being screened and treated and further separation is not practical. The rejected material is not a listed material and is not characteristically hazardous. Please contact me and/or James Moseley if you would like additional information.

The Division of Hazardous Waste Management (DHWM) has reviewed this closure plan modification request and recommends it be approved.

Henry County
Campbell's Soup General

James Moseley - Update on Campbell Napoleon RCRA Site

From: "Tesha Yielding" <tyielding@geotransinc.com>
To: <James.Moseley@epa.state.oh.us>
Date: 01/28/2003 5:57 PM
Subject: Update on Campbell Napoleon RCRA Site
CC: "Michael Kovacich" <mkovacich@geotransinc.com>

James,

I just wanted to give you a quick update on the activities at the Campbell RCRA site in Napoleon - Due to low temperatures the plant was shut down at the end of last week, we did not treat any soil on Thurs, Fri (1/23&1/24) or Monday of this week. The plant is up and running today - however, I am not on site today. I will be on-site tomorrow afternoon at the earliest, possibly not until Thurs morning - but I should be on-site Thurs for most of the day and Friday morning.

As of this afternoon we have treated approximately 2500 tons on-site, ½ of the estimated 5000 tons within our delineation line.

We now have a roll-off box on site to collect all the metal debris generated during the excavation activities. We would like to dispose of this debris at a non-hazardous landfill. We believe a non-haz landfill is appropriate for all debris generated at the site, and any soil excavated on-site that is not thermally treated. At this time we are not planning on sending any soil to a landfill, we would like to treat it all, however, some of the reject material may have to go to a landfill. From earlier discussions with you we are under the impression we can send waste to a landfill as long as it is not a large percentage of the 5000 tons of material we expect to excavate at this site. Also, we would need a waste manifest for all material taken off-site. Implementation of the waste characterization sampling plan (Sec 14.4 of the Closure Plan) determined the soils at this site are non-hazardous (analytical results from the TCLP analysis were sent to you in two separate correspondences, dated 8/21/2002 and 8/30/2002). Therefore, we believe we can take this waste to a non-haz landfill. Are you in agreement with this, and if we take it (metal debris and possibly soils from the site) to a non-haz landfill would a bill of lading be acceptable to the Ohio EPA in place of a waste manifest?

Thanks for your input,
Tesha

Tesha Yielding
Project Engineer

GeoTrans, Inc.
(734) 213 4068 direct
(734) 213 5008 fax
tyielding@geotransinc.com

Henry County
Campbell's Soup General

GeoTrans, Inc.
A TETRA TECH COMPANY
710 Avis Drive
Ann Arbor, MI 48108
www.geotransinc.com
734-213-2204 FAX 734-213-5008

January 17, 2003

Ms. Mylinda Shaskus
Ohio EPA
Engineering and Risk Assessment Section
Division of Hazardous Waste Management
Lazarus Government Center
122 South Front Street
Columbus, OH 43215

RECEIVED
JAN 21 2003
OHIO E.P.A.
M.W.D.O.

RE: Campbell Soup Company, Napoleon Site
Estimates of Residual Risk

Dear Ms. Shaskus,

As we discussed on January 9, 2003, GeoTrans, Inc., intends to reevaluate the remedial action cleanup criteria by calculating risk associated with exposure to treated and untreated soils using GCNs. The maximum detected concentrations of each chemical will be divided by its GCN and the ratios will be summed to determine if the risks and hazard indices are acceptable. If the sum of the ratios exceeds 1.0, then the upper 95th confidence limit of the arithmetic mean will be calculated and the ratios will be recomputed. If the ratios still exceed 1.0, other methods will be used to calculate risk at the site.

It is our understanding that you concur with this approach, and that new criteria established using these methods will be acceptable to the Ohio EPA. If this is not the case, please contact us at your earliest convenience. We will forward the revised risk numbers to you for review when we are confident that the maximum concentrations for each residual chemical of concern are known.

If you have any questions regarding these matters please do not hesitate to give me a call at 734-213-5024.

Sincerely,

Michael Kovacich
Project Manager

Cc: Dr. Osman Aly, Campbell Soup
Mr. James Mosely, OEPA

p:\projects\campbell soup\remediation\risk2\mylinda.doc

Henry County
Campbell's Soup
General

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

January 13, 2003

RECEIVED
JAN 16 2003
OHIO E.P.A.
N.W.D.O.

Via Airborne Express

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
ATTN: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

And

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
Attn: Mr. James Moseley
Division of Hazardous Waste Management
347 Dunbridge Road
Bowling Green, Ohio 43402

RE: Campbell Soup Company, Napoleon Site
Revision to RCRA Schedule to Closure

Dear Mr. Moseley:

Campbell Soup Company initiated RCRA closure and excavation activities at the Napoleon, Ohio Plant (former holding pit unit) during the week of December 9, 2002. This was in advance of the schedule presented in our OEPA approved RCRA Closure Plan. However, the uncharacteristically warm weather we have experienced over the past three weeks and the on-set of wet weather has resulted in the need to construct a temporary road capable of supporting heavy equipment, and the need to obtain sand to reduce the moisture content of the soil prior to treatment. These conditions and several minor equipment repairs have resulted in the excavation and treatment proceeding at a pace slower than anticipated. Therefore, we are requesting a modification to the approved RCRA Closure Plan schedule.

According to the approved RCRA Closure Plan, the soil excavation and collection of the soil corrective action verification samples were to be completed by January 18, 2003. It now appears we will not be able to meet that schedule. We request that the OEPA amend our approved schedule to reflect completion of this task by February 18, 2003 and change the scheduled completion date for all subsequent activities dependent on this task as follows:

Receive results of closure verification	March 31, 2003
Conduct engineer inspection and certification of site closure	April 15, 2003
Complete excavation backfill and regarding	May 1, 2003

I would appreciate your approval at your earliest convenience. If you have any questions regarding this request, please do not hesitate to call me at 856 968-4423, or contact Mr. Craig Savage at 734 213-5042.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

OMA/lgm

Cc: C. del Sol
F. Greenfield
M. Maringer
R. Shober
C. Savage, GeoTrans, Inc.

Campbell Soup 2003 Oct-Dec
12-773 SR 110, Napoleon OHD 005 419 171
Henry County MAIN PLANT DHWM

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M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 **FAX:** (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

Re: Campbell Soup Company
OHD 005419171
Main Plant
Henry County
CESQG/TSD
Return to Compliance

December 18, 2003

Mr. Michael Maringer
Manager, Services & Utilities
Campbell Soup Company
12-773 St. Rt. 110
Napoleon, Ohio 43545

Dear Mr. Maringer:

Thank you for your December 8, 2003, response to Ohio EPA's November 14, 2003, Notice of Violation letter. You submitted documentation including: a copy of the manifest for the video jet ink waste, a photo of the container label for this waste, a copy of the manifest for mercury thermometers and a photograph of the closed container of thermometers.

My review of this documentation reveals that Campbell Soup Company's Main Plant has adequately demonstrated abatement of the violation and adequate response to our general concern discovered during my October 29 and November 10, 2003, inspection.

If you have any questions, please contact me at (419) 373-3074.

Sincerely,

Don North

Don North
District Representative
Division of Hazardous Waste Management

/lb
pc: Tammy McConnell, DHWM, CO
Colleen Weaver, DHWM, NWDO
Cindy Lohrbach, DHWM, NWDO
DHWM, NWDO File

ec: Eric Getz, DHWM, NWDO
John Pasquarette, DHWM, NWDO
Don North, DHWM, NWDO

NOTICE:
Ohio EPA's failure to list specific deficiencies or violations in this letter does not relieve your company from having to comply with all applicable regulations.

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From: Kara Reynolds
To: Beak, Stephanie; Hagen, Erik
Date: 12/15/03 4:46PM
Subject: Long Lost Campbells

Well, I just received this from Mike K. They have some questions and they propose another statistical evaluation. I was wondering if this statistical evaluation was ok or not.

Specifically the following (right out of the e-mail)-I'm not 100% sure that this is what they proposed? Is the Wilcoxon Rank Sum the same thing as the Wilcoxon Signed Rank test?:

It is our understanding that the Ohio EPA and Campbell agree on the following statistical evaluation to determine the upper confidence limit for the chemicals of concern:

All samples within the closure unit will be used in the statistical evaluation. Because the sample concentration data do not follow a normal or log-normal distribution, Campbell has proposed the Wilcoxon Signed Rank nonparametric test of the median to calculate the confidence interval and 90th percentile upper confidence limit.

AND:

Question for Option a) Presented in the Ohio EPA December 8, 2003, Letter:

Campbell proposes using the detection limit as the data point for all non-detect samples in the risk assessment and statistical evaluation. Using the detection limit, instead of ½ the detection limit, will create an exposure point concentration in the detectable range. The exposure point calculation of the chemicals of concern will be calculated with the Wilcoxon Signed Rank Test and 90th percentile confidence as described above. Does the Ohio EPA approve the use of the detection limit for non-detect sample results in the risk assessment and statistical evaluation for this site?

Just and FYI-I spoke with Dr. Aly the day this was sent and as soon as I mentioned deed restriction, he got a little excited. I notice there are no questions from them concerning the deed restriction option, so I am assuming that they will not be pursuing this option under any circumstances.

Let me know when you get a chance to look at this and we can all talk.
Thanks,
Kara

CC: Terpinski, Michael

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 12/15/03 4:27PM
Subject: Questions Regarding Ohio EPA's 12-08-03 Letter

Kara,

We received a copy of your letter dated December 8, 2003. We are currently reviewing the options presented in the letter. Please clarify the following items:

Proposed Risk Assessment and Statistical Evaluation

It is our understanding that the Ohio EPA and Campbell Soup Company (Campbell) have agreed on the following risk assessment methodology:

The maximum detected concentration or upper confidence limit (UCL) of each chemical of concern will be divided by its GCN and the ratios will be summed to determine if the risks and hazard indices are acceptable. A sum of the ratios less than 1.0 indicates that environment risk at the site is less than the Ohio EPA action level of 1E-5 and that the site will be closed with unrestricted use.

It is our understanding that the Ohio EPA and Campbell agree on the following statistical evaluation to determine the upper confidence limit for the chemicals of concern:

All samples within the closure unit will be used in the statistical evaluation. Because the sample concentration data do not follow a normal or log-normal distribution, Campbell has proposed the Wilcoxon Signed Rank nonparametric test of the median to calculate the confidence interval and 90th percentile upper confidence limit.

It is our understanding that you concur with this approach. Please let us know if the methods for risk assessment and statistical evaluation described above are acceptable to the Ohio EPA.

Question for Option a) Presented in the Ohio EPA December 8, 2003, Letter:

Campbell proposes using the detection limit as the data point for all non-detect samples in the risk assessment and statistical evaluation. Using the detection limit, instead of ½ the detection limit, will create an exposure point concentration in the detectable range. The exposure point calculation of the chemicals of concern will be calculated with the Wilcoxon Signed Rank Test and 90th percentile confidence as described above. Does the Ohio EPA approve the use of the detection limit for non-detect sample results in the risk assessment and statistical evaluation for this site?

Question for Option c) as Presented in the Ohio EPA December 8, 2003, Letter:

In general, how would the proposed core samples in the existing backfill be used to determine the validity of the present data? It is our understanding that the current data will be validated as follows:

Campbell proposes substituting the samples that have been currently used to represent the backfill (CS-02-01 through CS-02-17, IS-02-01 through IS-02-03, and VR-02-01 through VR-02-3, VR-03-06 and VR-03-08 through VR-03-14) with the results collected from the proposed core samples for use in future risk assessments. Therefore, future risk assessments will include all of the samples from the investigation that remain following remediation, the confirmation samples (excavation floor and sidewalls) and the new samples collected from the backfill. Following the substitution, we will use the risk assessment methods described above to determine if the site meets the conditions for unrestricted closure. Does the Ohio EPA agree with our understanding of option c)?

We appreciate your answers to these questions as soon as possible, so we can have a conference call to discuss our plans. Please feel free to propose some dates for a conference call.

Sincerely,

Michael Kovacich, CPG
Senior Hydrogeologist
GeoTrans, Inc.
phone: 734.213.5024
fax:734.213.5008

CC: <osman_aly@campbellsoup.com>, <Michael.Terpinski@epa.state.oh.us>, "Amy Bayes" <abayes@geotransinc.com>, "Tesha Humphriss" <thumphriss@geotransinc.com>, <o.aly@worldnet.att.net>

RECEIVED
DEC 15 2003
OHIO E.P.A.
N.W.D.O.

Dan Junge
12/12/2003 01:26 PM

To: don.north@epa.state.oh.us
cc:
Subject: V8 plant photographs

Mr. North,

According to your phone conversation with Mr. Mike Maringer this morning, please find the attached files with the photographs
you requested.

Please contact us if any additional information is required.

Cordially,

Mike Maringer / Dan Junge - Campbell Soup Supply Co.

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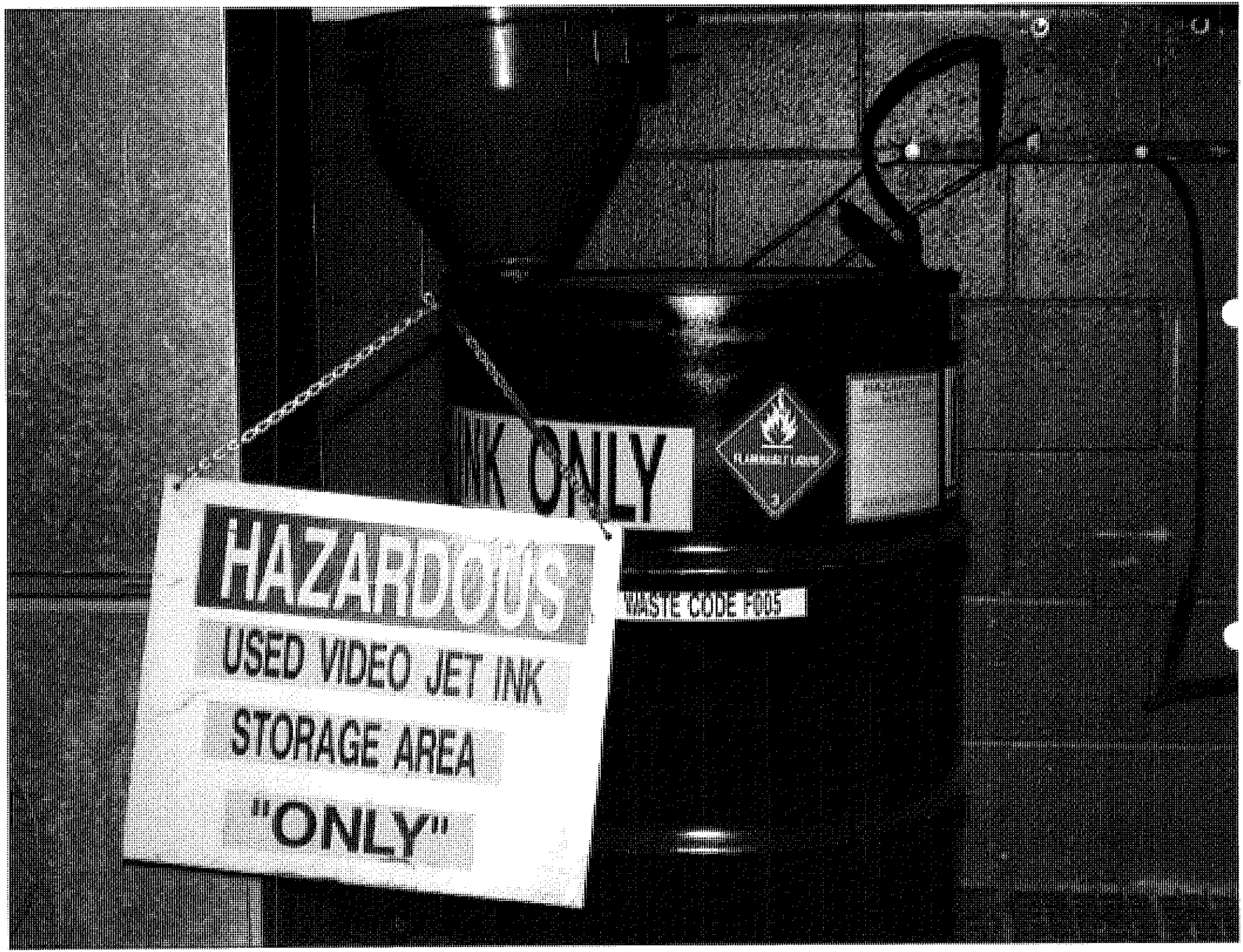
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From: <dan_junge@campbellsoup.com>
To: <don.north@epa.state.oh.us>
Date: 12/12/03 1:38PM
Subject: V8 plant photographs

Mr. North,

According to your phone conversation with Mr. Mike Maringer this morning, please find the attached files with the photographs you requested.

Please contact us if any additional information is required.

Cordially,

Mike Maringer / Dan Junge - Campbell Soup Supply Co.

(See attached file: hazchem2.jpg)(See attached file: hazchem3.jpg)

****
This e-mail and any files transmitted with it may contain confidential information and is intended solely for use by the individual to whom it is addressed. If you received this e-mail in error, please notify the sender, do not disclose its contents to others and delete it from your system.

****


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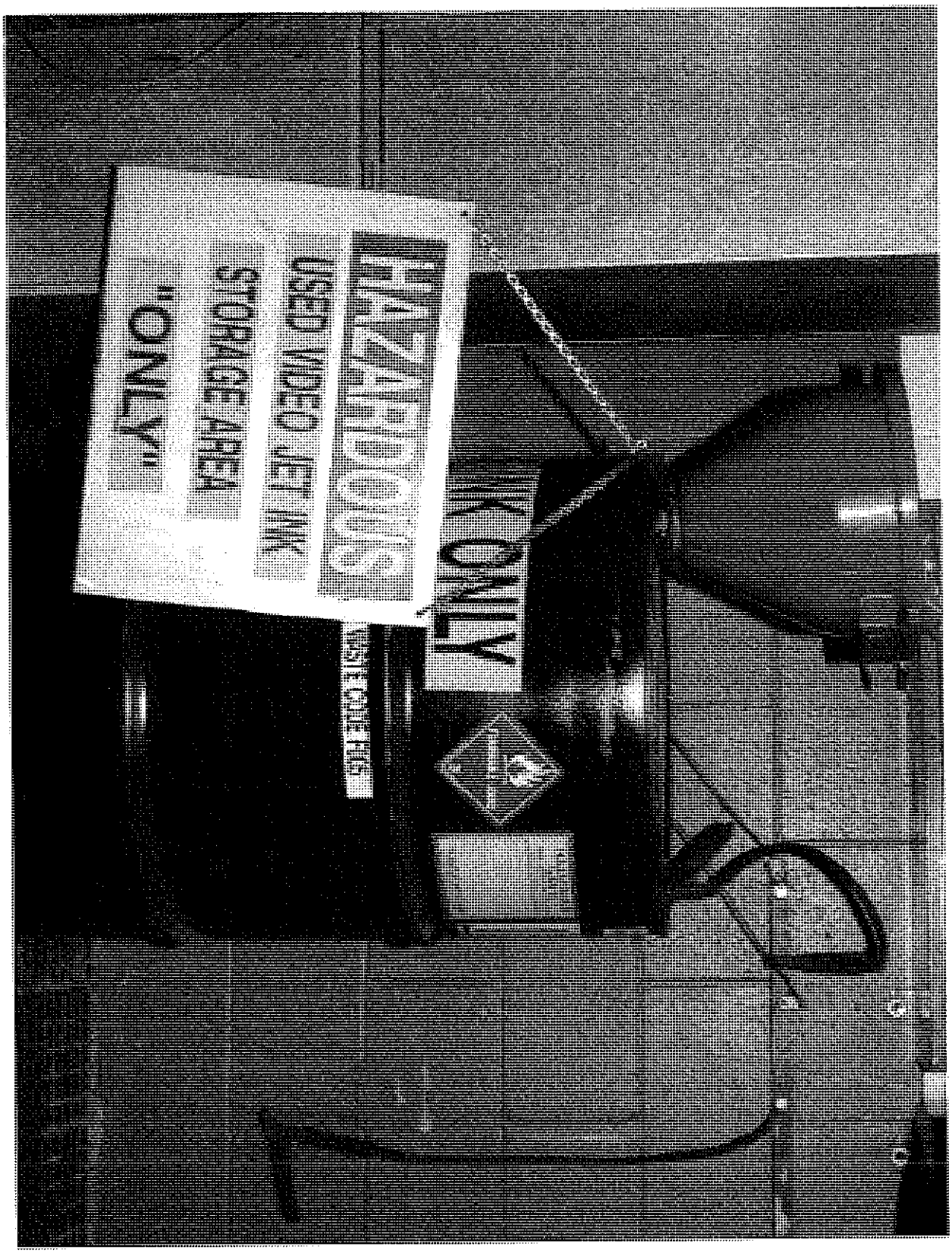
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OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 **FAX:** (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

December 8, 2003

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Former Holding Pit
RCRA Site Closure Certification Report
Campbell Soup Supply Company, Napoleon
OHD 005 419 171

Dear Dr. Aly:

On September 4, 2003, the Ohio Environmental Protection Agency (Ohio EPA) sent a Notice of Deficiency (NOD) to Campbell Soup Supply Company (CSC) for the *RCRA Site Closure Certification Report, Former Holding Pit Unit*. Comment 30 in the NOD requested that CSC perform statistical evaluations on the site data before completing the human health risk assessment. In response to our comment, CSC has submitted several documents and e-mails regarding a proposed statistical evaluation.

For risk purposes, CSC has chosen to use one-half the detection limit in the statistical determination of the exposure point concentration for certain chemicals. The facility used the Wilcoxon signed rank test and determined a 95% Upper Confidence Limit exposure point concentration that was well below the detection limit of the test. Even though the use of this procedure differs from Ohio EPA guidance, Ohio EPA does not disagree with the use of this statistical approach. However, Ohio EPA does not agree with the use of one half the detection limit with such highly censored data. According to U.S. EPA guidance, the use of one-half the detection limit is valid for statistical determinations, except in the case of highly censored datasets (see U.S. EPA, Guidance for Data Quality Assessment, 1998, section 4.73). Any statistical test using this type of data will determine an exposure point concentration that is biased to one half the detection limit value. This was indeed the case of the statistical evaluation submitted to Ohio EPA.

Ohio EPA cannot ignore the significance or the concentrations of samples with detections for a facility that is proposing a clean closure. In cases such as Campbell's, at other RCRA facilities, Ohio EPA requires either removal of impacted material or additional sampling to confirm the magnitude of contamination. However, the Campbell's facility presents something of a unique case because of the manipulation of soils after treatment activities had ceased. Therefore, Ohio EPA is willing to forego its normal procedure of having additional soil removed, if limited verification sampling is conducted to confirm that the soils will not pose a health risk now or in the future.

Ohio EPA is giving CSC the following options to choose from for determining the appropriate exposure and risk that contaminated media poses to human health and the environment.

a) CSC will be required to select a percentile, approved by Ohio EPA, of the highly censored data in the detectable range and use this value as the exposure point concentration in the risk assessment.

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Ohio EPA has suggested the 90th percentile in the past; or

b) CSC will be required to sample the existing top layers of soil, using a Sampling and Analysis Plan (SAP) approved by Ohio EPA, to determine the existing exposure point concentrations for all chemicals of concern (COC). These concentrations will be used in place of the existing closure data to show the residential human health risk posed by the top layers of soil through direct contact pathways including ingestion, inhalation, and dermal exposure. This risk assessment will not include the entire unit and will leave out the undisturbed, contaminated soils below the top layers. If CSC passes the human health risk assessment, a deed restriction will be required that prohibits the soils in this area to be disturbed by CSC or any other owner/operator. This will be used to protect against future exposure from the undisturbed, impacted soils below the top layers. If CSC does not pass the risk assessment, then CSC will need to work with Ohio EPA to determine other options for closure (e.g., closing as a landfill per the approved closure plan letter); or

c) CSC will be required to take several core samples in the existing backfilled area, using a SAP subject to approval by Ohio EPA, to determine the validity of the present data. If the data is similar in both the new samples and the closure samples, then CSC will proceed with the proposed statistical evaluation and human health risk assessment as agreed upon by Ohio EPA. If the data indicates that it is not similar to the closure samples, then CSC will work with Ohio EPA to determine options for closure.

Ohio EPA would like to schedule a conference call with CSC to discuss these closure options. Please contact Kara Reynolds at (419) 373-3065 at your earliest convenience.

Sincerely,

Kara Reynolds

Kara Reynolds
Division of Hazardous Waste Management

pc: Pamela Allen, DHWM Central File, Ohio EPA
Ed Lim, Manager, ERAS, CO, Ohio EPA
Stephanie Beak, ERAS, CO, Ohio EPA
Erik Hagen, ERAS, CO, Ohio EPA
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Kara Reynolds, Ohio EPA, NWDO
DHWM File
Michael Maringer, Campbell Soup Supply Company, Napoleon, Ohio
Michael Kovacich, Geo Trans, Inc., Ann Arbor, Michigan
Tesha Humphriss, Geo Trans, Inc., Ann Arbor, Michigan

Henry Co.
Campbell Soup
Oct-Dec 2003

From: Kara Reynolds
To: Humphriss, Tesha
Date: 12/31/03 12:33PM
Subject: Re: Kara, We have prepared this e-mail to define our understanding of the telephone discussion we had ye

Tesha,

I believe your understanding of the December 8, 2003 letter is correct.

As for the elements of the SAP, there are still some items that have not been finalized yet. As Michael K. and I found out yesterday, we were not able to pinpoint sampling locations at the site. I believe the best way to proceed is to send Ohio EPA a letter letting us know which option from the December 8 letter you have chosen. As I discussed with Michael, an outline or draft of the SAP may be included. Then we can schedule a conference call to discuss all of the details that need to be included in the final SAP, including but not limited to, number of samples, depth of samples, sample locations, etc.

The elements that you listed in the December 30, 2003 e-mail seem like a good start to the SAP.

As always, let me know if you have any questions.

Have a safe and happy New Year!
Kara

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: mkovacich@geotransinc.com; Terpinski, Michael

Henry Co: "Campbell Soup Company 2003 Oct - Dec"

From: "Tesha Humphriss" <thumphriss@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 12/30/03 4:38PM
Subject: Kara, We have prepared this e-mail to define our understandingof the telephone discussion we had ye

Kara, We have prepared this e-mail to define our understanding of the telephone discussion we had yesterday, December 29, 2003. Our understanding of Ohio EPA Option a) is to perform statistical analysis with only those samples exhibiting concentrations of the chemicals of concern above the method detection limit. The Ohio EPA would consider an exposure point concentration based on a percentile less than 90 on a case by case basis. The Ohio EPA would have to review a least one worked example of the calculation prior to approving this option. Our understanding of Ohio EPA Option c) is to develop a Sampling and Analysis Plan (SAP) to collect soil samples to validate the existing data currently used to characterize the backfill (the CS, IS and VR sample series). If the new data is consistent with the previous data, then Campbells will proceed with the statistical and risk assessment methods as discussed previously with the Ohio EPA. The following is our understanding of the elements of the SAP: A minimum of four soil borings will be completed in the backfill
2 soil samples will be collected from each boring (shallow and deep)
The new analytical results will be evaluated by the Ohio EPA to determine whether the backfill sample series are representative of current conditions.
If the data is consistent all samples within the closure unit (including the eight new samples from the backfill, the previous samples from the backfill, and all other remaining samples) will be used to perform a risk assessment. Samples that do not exhibit a concentration above the detection limit will be included in the assessment at ½ of the detection limit.
The specifics of the statistical analysis and risk assessment methods will be included in the SAP for the Ohio EPAs approval.
Campbells would like to proceed with the preparation of a draft SAP for your review provided that our understandings presented above are accurate.

Tesha & Mike

Tesha Humphriss
Project Engineer
GeoTrans, Inc
(734) 213 4068 direct
(734) 213 5008 fax
thumphriss@geotransinc.com

CC: <osman_aly@campbellsoup.com>, "Michael Kovacich" <mkovacich@geotransinc.com>, <O.ALY@worldnet.att.net>

Campbell Soup 2003 Oct-Dec File

Campbell Soup Supply Company File Henry Co Napoleon, OH

From: Kara Reynolds
To: mkovacich@geotransinc.com
Date: 12/23/03 8:31AM
Subject: CSC Questions

Michael,

Here are answers to your questions from the December 15, 2003 e-mail. Ohio EPA changes/comments/corrections are in bold.

Risk Assessment
The procedure that you included in the e-mail is accepted by Ohio EPA as long as the following changes are incorporated.

The maximum detected concentration or **95% Upper Confidence Limit** (UCL) **(unless otherwise agreed upon by Ohio EPA)** of each chemical of concern will be divided by its **Cancerous and Non-Cancerous GCNs** and the ratios will be summed to determine if the risks and hazard indices are acceptable. A sum of the **Non-Cancerous** ratios **that is 1.0 or** less **and a sum of the Cancerous ratios that, when multiplied by 10^-5, is 1E^-5 or less,** indicates that environmental risk at the site is less than the Ohio EPA action level and that the site will be closed with unrestricted use.

Statistical Evaluation Proposed by CSC
All samples within the closure unit will be used in the statistical evaluation. **TRUE.**

Because the sample concentration data do not follow a normal or log-normal distribution, Campbell has proposed the Wilcoxon Signed Rank nonparametric test of the median to calculate the confidence interval and 90th percentile upper confidence limit.

Ohio EPA does not agree that the Wilcoxon Sign Rank Test is an appropriate statistical procedure for calculating an exposure point concentration. Ohio EPA does not agree that this is the best, or even a valid statistical approach. However, Ohio EPA did demonstrate that similar results can be obtained with the test of proportions and the signed rank test. But, Ohio EPA believes that the similarity may be a consequence of the highly censored nature of the data. With this being said, Ohio EPA will allow CSC to use this test, but only in this instance. This is not a proper statistical procedure for other sites or other scenarios.

Option A
Question for Option a) Presented in the Ohio EPA December 8, 2003, Letter:

Campbell proposes using the detection limit as the data point for all non-detect samples in the risk assessment and statistical evaluation. Using the detection limit, instead of ½ the detection limit, will create an exposure point concentration in the detectable range. The exposure point calculation of the chemicals of concern will be calculated with the Wilcoxon Signed Rank Test and 90th percentile confidence as described above. Does the Ohio EPA approve the use of the detection limit for non-detect sample results in the risk assessment and statistical evaluation for this site?

Ohio EPA believes that using the detection limit, instead of ½ the detection limit, is a favorable procedure as there is more of an opportunity to have exposure concentrations in the detectable range. However, this may not be the case. Ohio EPA will need to know which detection limit CSC wishes to use since there were several detection limits used in the closure. In addition, Ohio EPA would need to have a presentation of at least one worked example of the procedures and data manipulations for our own evaluation purposes. Finally, Ohio EPA has consistently advocated (according to EPA QA/9) that an exposure point concentration be determined from the detected concentrations in the data set. It is not clear as to whether the statistical procedure proposed by CSC will generate an exposure point concentration in the detectable range other than the

detection limit.

Option C
Question for Option c) as Presented in the Ohio EPA December 8, 2003, Letter:

In general, how would the proposed core samples in the existing backfill be used to determine the validity of the present data? It is our understanding that the current data will be validated as follows:

Campbell proposes substituting the samples that have been currently used to represent the backfill (CS-02-01 through CS-02-17, IS-02-01 through IS-02-03, and VR-02-01 through VR-02-3, VR-03-06 and VR-03-08 through VR-03-14) with the results collected from the proposed core samples for use in future risk assessments. Therefore, future risk assessments will include all of the samples from the investigation that remain following remediation, the confirmation samples (excavation floor and sidewalls) and the new samples collected from the backfill. Following the substitution, we will use the risk assessment methods described above to determine if the site meets the conditions for unrestricted closure. Does the Ohio EPA agree with our understanding of option c)?

Ohio EPA does not agree with CSC's proposal of option c.

Ohio EPA proposes using more of an examination procedure, at least initially, than a strict statistical procedure. Ohio EPA would evaluate the results from the core samples and see if any constituents of concern are present. If present, Ohio EPA would examine the results to see if they are in the range of concentrations found in the previous sampling results. If they are commensurate with the majority of the results in the past (basically at or near the detection limit), then Ohio EPA would agree with CSC's exposure concentration approach and CSC could derive a statistical exposure point concentration. If, on the other hand, results are found to be near the upper range of concentrations, Ohio EPA would reserve the right to have additional characterization samples taken. This may involve extensive resampling of the soil in the pit area.

As far as substituting sample results, Ohio EPA is opposed to this approach. Ohio EPA must use all available (valid) results in expressing an exposure point concentration. If Campbells feels that these samples are non-representative, Ohio EPA needs to know now, so that a new sampling program can be instituted to determine an exposure point concentration.

Please call if you need more clarification.

Kara

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: abayes@geootransinc.com; Beak, Stephanie; Hagen, Erik;

osman_aly@campbellsoup.com; Terpinski, Michael; thumphriss@geotransinc.com

"Campbell Soup 2003 Oct-Dec" File

Campbells Soup Supply Company Napoleon - Henry Co

From: Erik Hagen
To: Kara Reynolds
Date: 12/19/03 11:57AM
Subject: Re: Long Lost Campbells

Kara,

I wanted to give you my impressions on Campbells proposals, since we may not meet up before the holidays. I talked to Stephanie Beak too, so this response is something amalgamation of our impressions.

1. I can live with Campbells using the Wilcoxon Signed Rank test. However, the assertion that we agree with the Wilcoxon Sign Rank Test as a appropriate statistical procedure for calculating an exposure point concentration is not correct. We have never agreed that this is the best or even a valid approach. We did demonstrate that similar results can be obtained with the test of proportions and the signed rank test. However, the similarity may be a consequence of the highly censored nature of the data that were examining.

2. Campbells has proposed to use the detection limit instead of one-half the detection limit in the statistical procedures for the exposure point concentration. This procedure is favorable as there is more of a opportunity to have exposure concentrations in the detectable range. However, The Ohio EPA will need to know which detection limit (there were several) that the facility wishes to use. In addition, I believe that we would have to have a presentation (at least one worked example) of the procedures and data manipulations for our own evaluation purposes. Finally, we have consistently advocated (according to EPA QA/9) that a an exposure point concentration be determined from the detected concentrations in the data set. It remains to be seen that the statistical procedures used by Campbells will generate a exposure point concentration in the detectable range other than the detection limit.

3. The question about option c is valid. I would propose using more of an examination procedure, at least initially, than a strict statistical procedure. I would evaluate the results from the cores and see if the any constituents of concern are present. If present, I would examine the results to see if they are in the range of concentrations found in the previous sampling results. If they are commensurate with the majority of the results in the past (basically at or near the detection limit), then we would agree with their exposure concentration approach and they could derive a statistical exposure point concentration. If, on the other hand, results are found to be near the upper range of concentrations, we would reserve the right to have additional characterization samples taken. This may involve extensive resampling of the soil in the pit area.

As far as substituting sample results. We would be opposed to this approach. We must use all available (valid) results in expressing an exposure point concentration. If Campbells feels that these samples are non-representative, we need to know now, so that a new sampling program can be instituted to determine an exposure point concentration.

Happy Holidays!

Erik

>>> Kara Reynolds 12/15/03 04:46PM >>>
Well, I just received this from Mike K. They have some questions and they propose another statistical evaluation. I was wondering if this statistical evaluation was ok or not.

Specifically the following (right out of the e-mail)-I'm not 100% sure that this is what they proposed? Is the Wilcoxon Rank Sum the same thing as the Wilcoxon Signed Rank test?:

It is our understanding that the Ohio EPA and Campbell agree on the
following statistical evaluation to determine the upper confidence limit
for the chemicals of concern:

All samples within the closure unit will be used in the statistical evaluation. Because the sample concentration data do not follow a normal or log-normal distribution, Campbell has proposed the Wilcoxon Signed Rank nonparametric test of the median to calculate the confidence interval and 90th percentile upper confidence limit.

AND:

Question for Option a) Presented in the Ohio EPA December 8, 2003, Letter:

Campbell proposes using the detection limit as the data point for all non-detect samples in the risk assessment and statistical evaluation. Using the detection limit, instead of ½ the detection limit, will create an exposure point concentration in the detectable range. The exposure point calculation of the chemicals of concern will be calculated with the Wilcoxon Signed Rank Test and 90th percentile confidence as described above. Does the Ohio EPA approve the use of the detection limit for non-detect sample results in the risk assessment and statistical evaluation for this site?

Just and FYI-I spoke with Dr. Aly the day this was sent and as soon as I mentioned deed restriction, he got a little excited. I notice there are no questions from them concerning the deed restriction option, so I am assuming that they will not be pursuing this option under any circumstances.

Let me know when you get a chance to look at this and we can all talk.
Thanks,
Kara

CC: Stephanie Beak

Campbell Soup Company

NAPOLEON, OHIO 43545

RECEIVED
DEC 0 9 2003
OHIO E.P.A.
N.W.D.O.

Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402-9398

Don North – District Representative

Dear Mr. North,

December 8, 2003

To correct the measures as stated in your letter dated November 14, 2003, to Campbell Soup Supply Company (OHD 005419171), the following items have been completed.

Beverage Plant

The Video Ink Jet Waste (F005), A telephone call was made to Heritage Environmental Services to correct the determination of this waste from D001 to F005. On November 21, 2003, Heritage removed the two waste ink drums from the Main Plant and Beverage Plant (see Manifest Attached). To further clarify this determination, a F005 sticker was placed on the new accumulation drums.

Waste Thermometers (D009) The thermometers observed during the inspection were removed by Heritage Environmental Services (see attachment) on November 1, 2003. To provide better awareness on open lids, a sticker was placed on the accumulation drum stating "Keep Lid Closed". Also, personnel were instructed to call my extension when the drum is three quarters full to prevent raised lids.

Please contact me if you have any additional questions.

M. N. Maringer

Mike Maringer
Manager - Services and Utilities

RECEIVED HER- 048848

DEC 0 9 2003

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.) Form Approved: OMB No. 2050-0039. Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID Number: O H D 0 0 5 4 1 9 1 7 1 N
Manifest Document No.: N.W.D.O. 1 7
2. Page 1 of 1
Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address: Main Plant
CAMPBELL SOUP COMPANY
STATE ROUTE 110, NAPOLEON, OH 43545

4. Generator's Phone (419) 599-4794

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: HERITAGE TRANSPORT, LLC
6. U.S. EPA ID Number: I N D 0 5 8 4 8 4 1 1 4

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name
8. U.S. EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: HERITAGE ENVIRONMENTAL SERVICES LLC
7901 WEST MORRIS STREET
INDIANAPOLIS, IN 46231
10. U.S. EPA ID Number: I N D 0 9 3 2 1 9 0 1 2

G. State Facility's ID

H. Facility's Phone: (317) 243-0811

11. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. RQ, WASTE FLAMMABLE LIQUIDS, N.O.S., 3, UN1993, PG II, (INK, METHYL ETHYL KETONE) (F005,D001) ERG#128	002	DM	00600	P	F005
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above: A. 34924-11 D001 F005 (VIDEO JET INK) D054 2x55 DM

K. Handling Codes for Wastes Listed Above: 11a. T50

15. Special Handling Instructions and Additional Information

24 HOUR EMERGENCY PHONE #:
419-592-1010

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed /Typed Name: MICHAEL MARINGER
Signature: [signature]
Date: Month 1 1 Day 2 1 Year 0 3

17. Transporter 1 - Acknowledgement of Receipt of Materials
Printed /Typed Name: Andrew P. Tucker
Signature: [signature]
Date: Month 1 1 Day 2 1 Year 0 3

18. Transporter 2 - Acknowledgement of Receipt of Materials
Printed /Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest (except as noted in Item 19).
Printed /Typed Name
Signature
Date: Month Day Year

GENERATOR

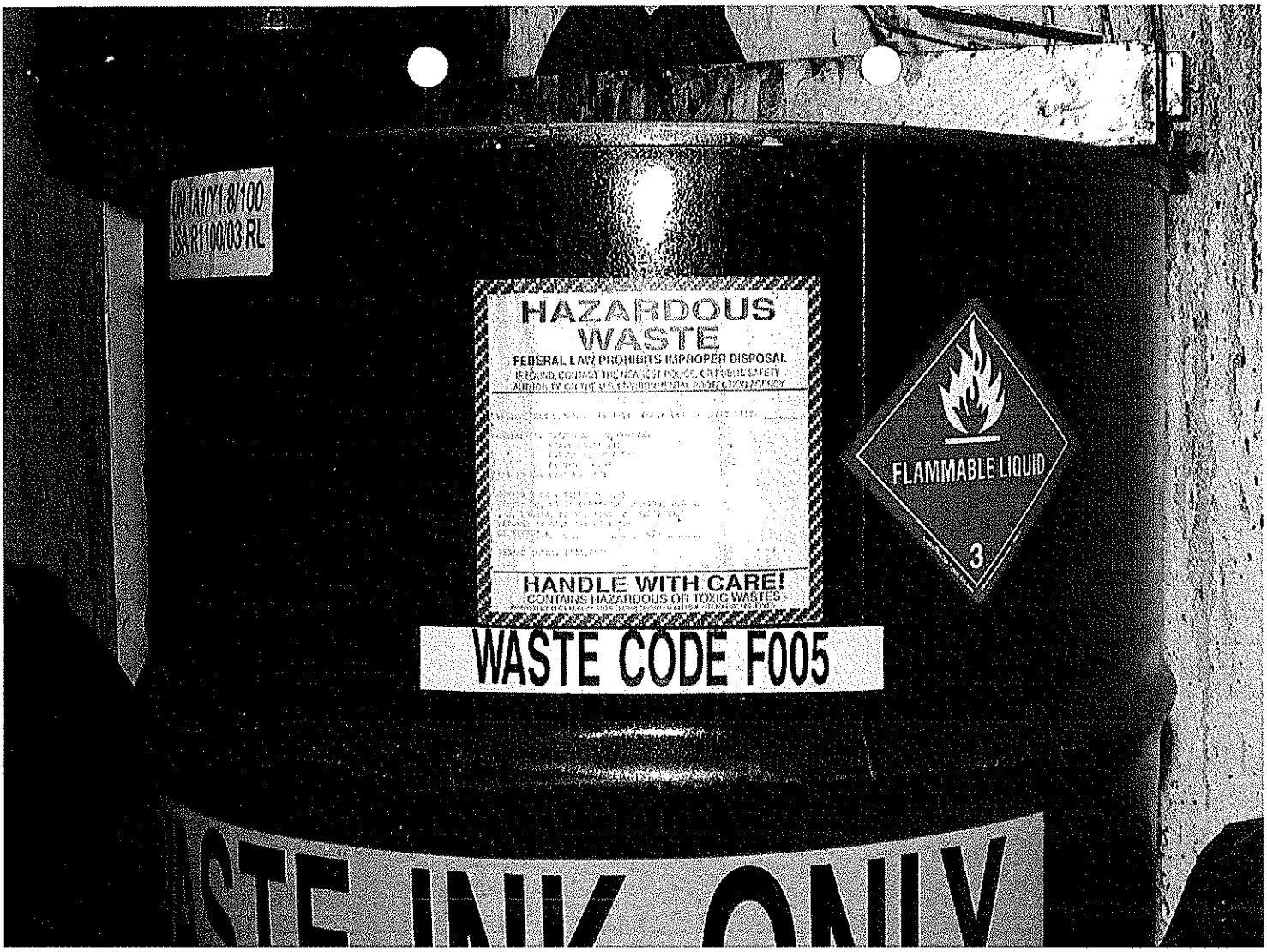
TRANSPORTER

FACILITY

In case of a spill, call the National Response center at 800 / 424-8802 or 202 / 426-2675

EPA Form 8700-22 (Rev. 10-94) Previous editions are obsolete.

COPY 3 - GENERATOR


HAZARDOUS
WASTE
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
HANDLE WITH CARE!
CONTAINS HAZARDOUS OR TOXIC WASTES
FLAMMABLE LIQUID
3
WASTE CODE F005

HER- 048811

PLEASE PRINT OR TYPE (Form designed for use on elite *(12-pitch)* typewriter.) Form Approved: OMB No. 2050-0039. Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID Number: 0 H D 0 0 5 4 1 9 1 7 1
Manifest Document No.: 1 1 8 1
2. Page 1 of 1
Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
CAMPBELL SOUP COMPANY
STATE ROUTE 110, NAPOLEON, OH 43545

4. Generator's Phone (419) 599-6794

A. State Manifest Document Number
B. State Generator's ID
C. State Transporter's ID
D. Transporter's Phone
E. State Transporter's ID
F. Transporter's Phone
G. State Facility's ID
H. Facility's Phone

5. Transporter 1 Company Name: HERITAGE TRANSPORT, LLC
6. U.S. EPA ID Number: N D 0 5 8 4 8 4 1 1 4

7. Transporter 2 Company Name
8. U.S. EPA ID Number

9. Designated Facility Name and Site Address
HERITAGE ENVIRONMENTAL SERVICES LLC
7901 WEST MORRIS STREET
INDIANAPOLIS, IN 46231
10. U.S. EPA ID Number: N D 0 9 3 2 1 9 0 1 2

11. U.S. DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. RQ, WASTE MERCURY, 8, UN2809, PGIII ERG#172	002	DM	00450	P	[illegible]
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above: [illegible] (MERCURY THERMOMETERS [illegible]) 2X55DM
K. Handling Codes for Wastes Listed Above: [illegible]

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY PHONE #: 419-592-1010

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed /Typed Name: MICHAEL N. MARINGER
Signature: Michael N. Maringer
Date: Month 1 1 Day 0 1 Year 0 3

17. Transporter 1 - Acknowledgement of Receipt of Materials
Printed /Typed Name: Nathan Giles
Signature: Nathan Giles
Date: Month 1 1 Day 0 1 Year 0 3

18. Transporter 2 - Acknowledgement of Receipt of Materials
Printed /Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest *(except as noted in Item 19)*.
Printed /Typed Name
Signature
Date: Month Day Year

GENERATOR

TRANSPORTER

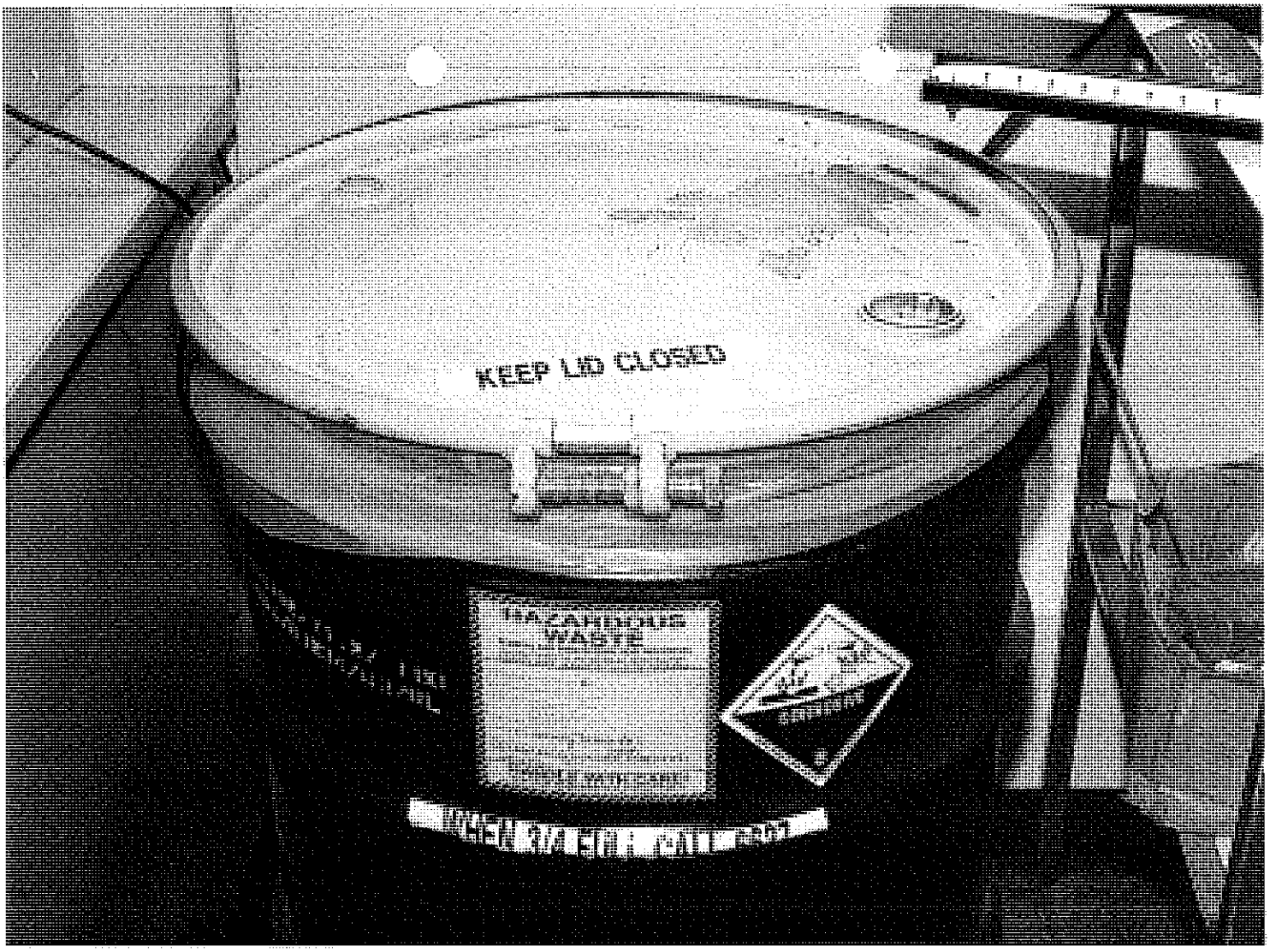
FACILITY

In case of a spill, call the National Response center at 800 / 424-8802 or 202 / 426-2675

EPA Form 8700-22 (Rev. 10-94) Previous editions are obsolete.

COPY 3 - GENERATOR


HAZARDOUS
WASTE
WHEN 3/4 FULL CALL 8537


KEEP LID CLOSED
HAZARDOUS
WASTE

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 11/18/03 5:10PM
Subject: Detailed Explanation of Proposed Statistics for the CSCNapoleon Risk Assessment

Kara,

We have prepared a explanation and example hand calculation detailing the Wilcoxon Rank Sum method. We plan to use this method to determine the 95 percentile for the four PAHs of concern.

Please review the attached file in preparation of our next conference call.

Thank you,

Michael Kovacich, CPG
Senior Hydrogeologist
GeoTrans, Inc.
phone: 734.213.5024
fax:734.213.5008

CC: <erik.hagen@epa.state.oh.us>, <Michael.Terpinski@epa.state.oh.us>

Calculating the 1-Sample Wilcoxon Rank Sum Confidence Interval

The Wilcoxon Rank Sum (WRS), also known as Wilcoxon Signed Rank, nonparametric test is used when the data do not follow a normal or lognormal population distribution. EPA Guidance for Data Quality Assessment indicates the Wilcoxon Rank Sum is the preferred nonparametric test for data that are heavily censored (containing a high percentage of non-detect values).

Nonparametric tests do not assume a specific mathematical form for the underlying population distribution. As a result, they perform well for a wide variety of distributions, and outliers do not unduly affect the test's performance. WRS is robust with respect to outliers because the analysis is conducted in terms of ranks of the data. This limits the influence of outliers because a given data point can be no more extreme than the first or last rank.

WRS assumptions:

1. The sample is random
2. The variable is continuous
3. The measurement scale is at least interval.

Example Calculation: For ease of the following hand calculations, a relatively small data set was selected for the example calculation. The selected data set is the Benzo(a)pyrene (BaP) analytical results from 34 samples collected from the excavation backfill. The 34 continuous variables are presented in the attached excel spreadsheet.

Step 1: Calculate $W(i) = (X_i+X_j)/2$ = all pairwise averages for $i \leq j$.

For BaP, this calculation results in 595 pairwise averages. This creates an approximate normal distribution from which a median value Confidence Interval is estimated.

Step 2: Sort the pairwise averages in numerical order from lowest to highest.

Step 3: Calculate the endpoints of the $(1-\alpha)*100\%$ confidence interval by solving for $Z_{(1-\alpha/2)}$. In this case, Z for the 95% Confidence Interval is 1.9600.

Step 4: Calculate d.

$$d \approx \frac{n+1}{4} - 0.5 - Z \qquad \sqrt{n\frac{(n+1)(2n+1)}{24}}$$

For BaP:

$$d \approx \frac{34\times 35}{4} - 0.5 - 1.9600 \sqrt{34\frac{(35)(69)}{24}}$$

$d \approx 183$

Step 5: Using the notation above, the lower endpoint of the confidence interval is W(d+1) and the upper endpoint is $W(n_w\text{-}d)$, where n_w is the number of pairwise averages.

W(d+1) = W(183+1) = The 184th pairwise average = 165
$W(n_w\text{-}d)$ = W(595-183) = The 412th pairwise average = 323

MiniTab Software Output

Results for: BaPExample.XLS

Wilcoxon Signed Rank CI: BaP

	N	Estimated Median	Achieved Confidence	Confidence Interval	
BaP	34	173	95.1	(165,	323)

BaP	RANK	Pairsort	Rank	Pairsort	Rank	Pairsort	Rank	Pairsort	Rank
165	1	165	35	165	69	165	103	165	137
165	2	165	36	165	70	165	104	165	138
165	3	165	37	165	71	165	105	165	139
165	4	165	38	165	72	165	106	165	140
165	5	165	39	165	73	165	107	165	141
165	6	165	40	165	74	165	108	165	142
165	7	165	41	165	75	165	109	165	143
165	8	165	42	165	76	165	110	165	144
165	9	165	43	165	77	165	111	165	145
165	10	165	44	165	78	165	112	165	146
165	11	165	45	165	79	165	113	165	147
165	12	165	46	165	80	165	114	165	148
165	13	165	47	165	81	165	115	165	149
165	14	165	48	165	82	165	116	165	150
165	15	165	49	165	83	165	117	165	151
165	16	165	50	165	84	165	118	165	152
165	17	165	51	165	85	165	119	165	153
165	18	165	52	165	86	165	120	165	154
165	19	165	53	165	87	165	121	165	155
165	20	165	54	165	88	165	122	165	156
165	21	165	55	165	89	165	123	165	157
165	22	165	56	165	90	165	124	165	158
165	23	165	57	165	91	165	125	165	159
180	24	165	58	165	92	165	126	165	160
350	25	165	59	165	93	165	127	165	161
350	26	165	60	165	94	165	128	165	162
370	27	165	61	165	95	165	129	165	163
370	28	165	62	165	96	165	130	165	164
480	29	165	63	165	97	165	131	165	165
630	30	165	64	165	98	165	132	165	166
660	31	165	65	165	99	165	133	165	167
740	32	165	66	165	100	165	134	165	168
920	33	165	67	165	101	165	135	165	169
1080	34	165	68	165	102	165	136	165	170

Pairsort	Rank	Pairsort	Rank	Pairsort	Rank	Pairsort	Rank	Pairsort
165	171	165	205	165	239	165	273	165
165	172	165	206	165	240	165	274	165
165	173	165	207	165	241	165	275	165
165	174	165	208	165	242	165	276	165
165	175	165	209	165	243	165	277	172.5
165	176	165	210	165	244	165	278	172.5
165	177	165	211	165	245	165	279	172.5
165	178	165	212	165	246	165	280	172.5
165	179	165	213	165	247	165	281	172.5
165	180	165	214	165	248	165	282	172.5
165	181	165	215	165	249	165	283	172.5
165	182	165	216	165	250	165	284	172.5
165	183	165	217	165	251	165	285	172.5
165	**184**	**165**	218	165	252	165	286	172.5
165	185	165	219	165	253	165	287	172.5
165	186	165	220	165	254	165	288	172.5
165	187	165	221	165	255	165	289	172.5
165	188	165	222	165	256	165	290	172.5
165	189	165	223	165	257	165	291	172.5
165	190	165	224	165	258	165	292	172.5
165	191	165	225	165	259	165	293	172.5
165	192	165	226	165	260	165	294	172.5
165	193	165	227	165	261	165	295	172.5
165	194	165	228	165	262	165	296	172.5
165	195	165	229	165	263	165	297	172.5
165	196	165	230	165	264	165	298	172.5
165	197	165	231	165	265	165	299	172.5
165	198	165	232	165	266	165	300	180
165	199	165	233	165	267	165	301	257.5
165	200	165	234	165	268	165	302	257.5
165	201	165	235	165	269	165	303	257.5
165	202	165	236	165	270	165	304	257.5
165	203	165	237	165	271	165	305	257.5
165	204	165	238	165	272	165	306	257.5

Rank	Pairsort	Rank	Pairsort	Rank	Pairsort	Rank	Pairsort	Rank
307	257.5	341	257.5	375	267.5	409	322.5	443
308	257.5	342	257.5	376	267.5	410	322.5	444
309	257.5	343	257.5	377	267.5	411	322.5	445
310	257.5	344	257.5	378	267.5	**412**	**322.5**	446
311	257.5	345	257.5	379	267.5	413	322.5	447
312	257.5	346	257.5	380	267.5	414	322.5	448
313	257.5	347	265	381	267.5	415	322.5	449
314	257.5	348	265	382	267.5	416	322.5	450
315	257.5	349	267.5	383	267.5	417	322.5	451
316	257.5	350	267.5	384	267.5	418	322.5	452
317	257.5	351	267.5	385	267.5	419	322.5	453
318	257.5	352	267.5	386	267.5	420	330	454
319	257.5	353	267.5	387	267.5	421	350	455
320	257.5	354	267.5	388	267.5	422	350	456
321	257.5	355	267.5	389	267.5	423	350	457
322	257.5	356	267.5	390	267.5	424	360	458
323	257.5	357	267.5	391	267.5	425	360	459
324	257.5	358	267.5	392	267.5	426	360	460
325	257.5	359	267.5	393	267.5	427	360	461
326	257.5	360	267.5	394	267.5	428	370	462
327	257.5	361	267.5	395	275	429	370	463
328	257.5	362	267.5	396	275	430	370	464
329	257.5	363	267.5	397	322.5	431	397.5	465
330	257.5	364	267.5	398	322.5	432	397.5	466
331	257.5	365	267.5	399	322.5	433	397.5	467
332	257.5	366	267.5	400	322.5	434	397.5	468
333	257.5	367	267.5	401	322.5	435	397.5	469
334	257.5	368	267.5	402	322.5	436	397.5	470
335	257.5	369	267.5	403	322.5	437	397.5	471
336	257.5	370	267.5	404	322.5	438	397.5	472
337	257.5	371	267.5	405	322.5	439	397.5	473
338	257.5	372	267.5	406	322.5	440	397.5	474
339	257.5	373	267.5	407	322.5	441	397.5	475
340	257.5	374	267.5	408	322.5	442	397.5	476

Pairsort	Rank	Pairsort	Rank	Pairsort	Rank	Pairsort	Rank	Pairsort
397.5	477	412.5	511	500	545	570	579	700
397.5	478	415	512	505	546	610	580	700
397.5	479	415	513	505	547	622.5	581	715
397.5	480	420	514	515	548	622.5	582	715
397.5	481	425	515	515	549	622.5	583	725
397.5	482	425	516	542.5	550	622.5	584	725
397.5	483	452.5	517	542.5	551	622.5	585	740
397.5	484	452.5	518	542.5	552	622.5	586	775
397.5	485	452.5	519	542.5	553	622.5	587	780
397.5	486	452.5	520	542.5	554	622.5	588	790
397.5	487	452.5	521	542.5	555	622.5	589	830
405	488	452.5	522	542.5	556	622.5	590	855
412.5	489	452.5	523	542.5	557	622.5	591	870
412.5	490	452.5	524	542.5	558	622.5	592	910
412.5	491	452.5	525	542.5	559	622.5	593	920
412.5	492	452.5	526	542.5	560	622.5	594	1000
412.5	493	452.5	527	542.5	561	622.5	595	1080
412.5	494	452.5	528	542.5	562	622.5		
412.5	495	452.5	529	542.5	563	622.5		
412.5	496	452.5	530	542.5	564	622.5		
412.5	497	452.5	531	542.5	565	622.5		
412.5	498	452.5	532	542.5	566	622.5		
412.5	499	452.5	533	542.5	567	622.5		
412.5	500	452.5	534	542.5	568	622.5		
412.5	501	452.5	535	542.5	569	622.5		
412.5	502	452.5	536	542.5	570	630		
412.5	503	452.5	537	542.5	571	630		
412.5	504	452.5	538	542.5	572	635		
412.5	505	452.5	539	545	573	635		
412.5	506	460	540	545	574	645		
412.5	507	480	541	550	575	645		
412.5	508	490	542	555	576	645		
412.5	509	490	543	555	577	660		
412.5	510	500	544	555	578	685		

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 **FAX:** (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

Re: Campbell Soup Company
OHD 005419171
Main Plant
Henry County
CESQG/TSD
Notice of Violation

November 14, 2003

Mr. Michael Maringer
Manager, Services & Utilities
Campbell Soup Company
12-773 St. Rt. 110
Napoleon, Ohio 43545

Dear Mr. Maringer:

Thank you for accompanying me during Ohio EPA's October 29 and November 10, 2003, inspection of Campbell Soup Company's (CSC-MP) Main Plant (OHD 005419171) at 12-773 St. Rt. 110 in Napoleon, Ohio. We were also accompanied by Kara Reynolds and Dawn Pleiman of Ohio EPA on both days and Mr. Jim Koskan of CSC on November 10, 2003. I inspected CSC-MP to determine its compliance with Ohio's hazardous waste laws as found in Chapter 3734. of the Ohio Revised Code (ORC) and Chapter 3745. of the Ohio Administrative Code (OAC). During the inspection we also discussed ways to prevent pollution by reducing waste. This letter will explain the violation I found, what you need to do to correct the violation, a general concern that I have and what you need to do to respond to my general concern.

CSC-MP produces heat processed food products including soups. The general process involves the following steps: ingredients to receiving → preparation areas (vegetables are pealed and diced) → tram system moves holding bins to kettles → filler bowls → cans closed → coded (video jet) → cookers → labeling → boxed→ warehouse. Very little hazardous waste is generated since most of the materials used in the plant must be food grade materials. Kettles are cleaned with food grade cleaners and the wastewaters go to the on-site wastewater treatment plant.

The following hazardous wastes are generated in CSC-MP:

Main Plant **OHD 005419171** / CESQG-TSD

1. Video Ink Jet Waste (F005) This waste is generated from cleaning the video ink jet machines. When the ink runs out the machine is programed for cleaning mode. The cleaner is 68% MEK (Methyl Ethyl Ketone). Approximately two 55-gallons drums of this waste is generated each year.

2. Waste Thermometers (D009) When mercury thermometers do not operate properly or are broken they are discarded.

3. Waste Paint (D001) This waste is generated from cleaning painting equipment and left over paint. The plant paints walls, stripes and rails, etc.

Printed on Recycled Paper

4. Used Oil (Non-hazardous) Used oil is generated in the main plant, water treatment plant, power plant and Maintenance Construction Area (Building N-24). It is accumulated in 55-gallon drums and stored in a curbed and fenced area outside the main plant. It is recycled by Midwest Environmental.

I found the following violation of Ohio's hazardous waste laws. In order to correct this violation you must do the following and send me the required information **within 30 days** of your receipt of this letter:

1. **Waste Evaluation**
   OAC Rule 3745-52-11

   A person who generates a waste must determine if the waste is listed as a hazardous waste in rules 3745-51-30 to 3745-51-35. CSC-MP had failed to determine that its video ink jet waste was listed as an F005 hazardous waste. CSC-MP had characterized the waste as ignitable (D001) waste only. The Make Up (cleaning) solvent contains 68% MEK and, therefore, should have been designated as an F005 waste.

   In order to correct this violation, CSC-MP must record the hazardous waste number F005 on all future manifests for the video ink jet waste from the Main Plant and submit to me either a copy of the next completed manifest, or a revised copy of a manifest, as an example, if the waste will not be shipped off-site within 30 days. CSC-MP must also submit to me a photograph documenting that the hazardous waste label is marked with the hazardous waste number F005.

During the inspection, I observed that unuseable mercury thermometers were being accumulated in one 55-gallon drum and two 5-gallon pails. A few of the thermometers were broken, but the containers were not closed. Because of the potential for exposure to mercury vapor from the broken thermometers, I strongly recommend that you keep all containers of unuseable thermometers closed, except when it is necessary to add more. Please send me a photograph of the closed container used to accumulate the unuseable mercury thermometers, **within 30 days** of your receipt of this letter.

We discussed annual training that you participate in and you indicated an interest in hazardous waste management training provided by the University of Findlay. Here is the web site for the program: http://seem.findlay.edu/ESH/default.asp.

For your information, I have enclosed a copy of the following fact sheets and lists: The Regulation of Used Oil: An Overview for Ohio Businesses - Used Oil Generators, Commercial Used Oil Marketers and Recyclers, Fluorescent Lamps Fact Sheet, Computer, Fluorescent Lamp and Ballast Recyclers and Management of Electronic Waste From Business.

As we discussed during the inspection, you may be able to reduce the waste your company generates. If you find ways to recycle, reduce or altogether eliminate the amount of waste that your company generates you may be able to reduce your treatment and disposal costs and you may possibly reduce your regulatory requirements. If you would like more information about pollution prevention, or if you would like to be considered for an in depth, on site pollution prevention assessment, please contact me at (419) 373-3074 or Ohio EPA's Office of Pollution Prevention (OPP) at (614) 644-3469.

The Division of Hazardous Waste Management has created an electronic news service to provide you with quick and timely updates on events and news related to hazardous waste activities in Ohio. If you haven't already, we encourage you to sign-up for this free service. You can find more information at the following Web link http://www.epa.state.oh.us/dhwm/listserv.html. Please feel free to share this information with your colleagues.

Enclosed you will find a copy of the checklists that I completed during the inspection of the Main Plant. Should you have any questions, please feel free to contact me at (419) 373-3074. You can find copies of the rules and other information on the division's web page at http://www.epa.state.oh.us/dhwm. Ohio EPA also has helpful information about pollution prevention at the following web address: http://www.epa.state.oh.us/opp.

Sincerely,

Don North
District Representative
Division of Hazardous Waste Management
/lb
Enclosures
pc: Tammy McConnell, DHWM, CO (w/enc.)
Colleen Weaver, DHWM, NWDO
Cindy Lohrbach, DHWM, NWDO
DHWM, NWDO File (w/enc.)
Follow-up File
ec: Eric Getz, DHWM, NWDO
John Pasquarette, DHWM, NWDO
Don North, DHWM, NWDO

NOTICE:
Ohio EPA's failure to list specific deficiencies or violations in this letter does not relieve your company from having to comply with all applicable regulations.

USED OIL INSPECTION CHECKLIST

Main Plant

Company: Campbell Soup Company EPA I.D.: OHD 005419171

Street: 12-773 St. Rt. 110 City: Napoleon

County: Henry State: Ohio Zip: 43545

Mailing Address: (IF DIFFERENT FROM ABOVE)

Telephone: (419) 592-1010 Fax:

Owner/ Operator: (IF DIFFERENT FROM ABOVE)

Street:

City: State: Zip:

Inspection Date(s): 10-29-03 and 11-10-03 Time(s): 9-12 / 9-1:30

Inspection announced? Yes ____ No ✓ If so, how much advance notice given? ____

	Name	Affiliation	Telephone
Inspectors:	Don North	OEPA, DHWM, NWDO	(419) 373-3074
	Kara Reynolds	OEPA, DHWM, NWDO	(419) 373-3065
Facility Rep(s):	Dawn Pfeiman	OEPA, DHWM, NWDO	(419) 373-3148
	Michael Maringer	Camp Mgr. Sew. + Util	(419) 592-1010 X 6637
11-10-03	Jim Koskan	Camp. Area Mgr. Pet. Sew.	(419) 592-1010

USED OIL MANAGEMENT ACTIVITY

✓ Generator/Collection Center/Aggregation	____ Marketer
____ Transporter/Transfer Facility	____ Off-Spec Burner
____ Processor/Re-Refiner	____ Other (specify)
____ No Generation	

PROHIBITIONS

1. Is used oil being managed in a surface impoundment or waste pile? If so: — Yes___No ✓ N/A ___RMK#___

   Is the surface impoundment or waste pile being regulated under OAC 3745-54 to 3745-57 or 3745-65 to 3745-69? [3745-279-12(A)] — Yes ___ No ❑ N/A ✓ RMK#___

2. Is used oil being used as a dust suppressant? [3745-279-12(B)] — Yes ❑ No ✓ N/A ___RMK#___

3. Is off-specification used oil fuel burned for energy recovery only in devices specified in 3745-279-12(C)? — Yes ___ No ❑ N/A ✓ RMK# 1.

Campbell's no longer burns

USED OIL GENERATOR STANDARDS

4. Does the generator mix hazardous waste with used oil only as provided in 3745-279-10(B)? [2745-279-21(A)] — Yes ___ No ❑ N/A ✓ RMK#___

5. Does the generator of a used oil containing greater than 1,000 ppm total halogens manage the used oil as a hazardous waste unless the presumption is rebutted successfully? [3745-279-21(B)] — Yes ___ No ❑ N/A ✓ RMK#___

6. Does the generator only store used oil in tanks, containers, or units subject to OAC 3745-54 to 3745-57 or 3745-65 to 3745-69? [3745-279-22(A)] — Yes ✓ No ❑ N/A ___RMK# 2.

Stored in 55-gal drums

7. Are containers and aboveground tanks used to store used oil in good condition with no visible leaks? [3745-279-22(B)] — Yes ✓ No ❑ N/A ___RMK#___

8. Are containers, above ground tanks, and fill pipes used for underground tanks clearly labeled or marked "Used Oil?" [3745-279-22(C)] — Yes ✓ No ❑ N/A ___RMK#___

9. Has the generator, upon detection of a release of used oil, done the following: [3745-279-22(D)]

   a. Stopped the release? — Yes ___ No ❑ N/A ✓ RMK#___

   b. Contained the release? — Yes ___ No ❑ N/A ___RMK#___

   c. Cleaned up and properly managed the used oil and other materials? — Yes ___ No ❑ N/A ___RMK#___

   d. Repaired or replaced the containers or tanks prior to returning them to service, if necessary? — Yes ___ No ❑ N/A ___RMK#___

10. Does the generator burn used oil in used fired space heaters? [3745-279-23] If so: — Yes___No ✓ N/A ___RMK#___

Used oil stored in curbed, fenced area outside main plant.

a. Does the heater burn only used oil that owner/operator generates or used oil received from household do-it-yourself (DIY) used oil generators? — Yes ___ No ☐ N/A ✓ RMK#___

b. Is the heater designed to have a maximum capacity of not more that 0.5 million BTU per hour? — Yes ___ No ☐ N/A ___ RMK#___

c. Are the combustion gases from heater vented to the ambient air? — Yes ___ No ☐ N/A ___ RMK#___

11. Does the generator have the used oil hauled only by transporters that have obtained an EPA ID#, unless the generator qualifies for an exemption pursuant to 3745-279-24 (self transportation or tolling agreements)? [3745-279-24] — Yes ✓ No ☐ N/A ___ RMK# 4.

4. Midwest Environmental

USED OIL COLLECTION CENTERS AND AGGREGATION POINTS

12. Is the DIY used oil collection center in compliance with the generator standards in 3745-279-20 to 3745-279-24? [3745-279-30] — Yes ___ No ☐ N/A ✓ RMK#___

13. Is the non-DIY used oil collection center registered with Ohio EPA? [3745-279-31] — Yes ___ No ☐ N/A ___ RMK#___

14. Is the used oil aggregation point in compliance with the generator standards in 3745-279-20 to 3745-279-24? [3745-279-32] — Yes ___ No ☐ N/A ___ RMK#___

WASTE EVALUATION

15. Have all wastes generated at the facility been evaluated? [3745-52-11] — Yes ___ No ☑ N/A ___ RMK# 3.

REMARKS

3. See other checklist. (CESQG)

RCRA HAZARDOUS WASTE GENERATOR INSPECTION CHECKLIST

Main Plant

Company: Campbell Soup Company EPA ID#: OHD 005419171

Street: 12-773 St. Rt. 110 City: Napoleon

County: Henry State: Ohio Zip: 43545

Mailing Address: _____
(If different from above)

Telephone: (419) 592-1010 Fax #: _____

Owner/ Operator: _____
(If different from above)

Street: _____

City: _____ State: Ohio Zip: _____

Inspection Date(s): 10-29-03 and 11/10/03 Time(s): 9-12 | 9-1:30

Inspection Announced? ____ Yes ✓ NO If so, how much advance notice given? _____

	Name	Affiliation	Telephone
Inspectors:	Don North	OEPA, Dtwn, NWDO	(419) 373-3074
	Kara Reynolds	OEPA, Dtwn, NWDO	(419) 373-3065
Facility Representative:	Dawn Pleiman	OEPA, Dtwn, NWDO	(419) 373-3148
	Michael Maringer	Campbell Mgr. Sew + Util	(419)592-1010X6637
11-10-03	Jim Koskan	C. Area Mgr. Plt. Services	(419)592-1010

Generator Classification	Waste Management Activity
✓ Conditionally Exempt SQG (CESQG)	✓ Containers
____ Small Quantity Generator (SQG)	____ Tank(s)
____ Large Quantity Generator (LQG)	____ Other (specify)
____ No Generation	

CESQG:< 100 Kg. (approximately 25-30 gallons) of waste in a calendar month

SQG: Between 100 and 1,000 Kg. (about 25 to under 300 gallons) of waste in a calendar month

LQG: >1,000 Kg. (~300 gallons) of waste in a calendar month or > 1 Kg. of acutely hazardous waste in a calendar month

NOTE: *To convert from gallons to pounds: Amount in gallons x Specific Gravity x 8.345 = Amounts in pounds*

POLLUTION PREVENTION

Note to the Inspector: This checklist has been developed to help the division in gathering general information about the pollution prevention (P2) practices that the company may have initiated or attempted to initiate. The checklist is also used to:

- Facilitate P2 discussions;
- Identify barriers to P2;
- Define the P2 universe;
- Identify the need for future P2 initiatives;
- Identify partnership opportunities; and
- Link companies with better P2 resources.

As a prelude to completing this checklist the inspector should use the following list of questions as a way to initiate a dialogue concerning P2:

1. Have you tried to reduce the volume of waste (hazardous and nonhazardous) that you generate?

2. What is the largest waste stream that you generate?

3. How important would it be to you to eliminate that waste stream?

4. Does your company understand the reduced regulatory burden and cost saving benefits that eliminating or reducing a waste stream can have?

5. Could you use better housekeeping practices to reduce the amount of waste that you generate?

If the company responds with one of the answers below, the appropriate box should be checked. If the company's response does not correspond to one of the options below, please record the answer in the space provided in the remarks section.

1. Has the company undertaken any P2 activities to reduce the amount of waste generated? ☑Yes ☐No ☐N/A ___RMK#

   a. If so, what has the company done to minimize waste generation?

   - ☐ A change in the process resulting in less waste.
   - ☐ A change in the product resulting in less waste.
   - ☐ Use of fewer and less toxic hazardous raw materials.
   - ☐ Better operations/improved housekeeping.
   - ☐ On-site recycling/reuse of hazardous materials.
   - ☐ Sending waste off-site for recycling/reuse.
   - ☐ Other activities (specify):

Campbell Soup Company used to be a large quantity generator when it manufactured its own cans. However, this business was sold and is no longer done by Campbells Company is now acting as a conditionally exempt small quantity generator.

b. ***If so,*** what wastes have been addressed?

- ❑ Solvents
- ❑ Paint related wastes
- ❑ Industrial process wastes (sludges, slags, contaminated wastes waters, etc.)
- ❑ Contaminated oils/hydraulic fluids
- ❑ Off-spec chemicals
- ❑ Shop rags
- ❑ Other (specify):
- ❑ Waste water
- ❑ Solid waste (paper, plastic, metal, wood, blasting material)
- ❑ Air emissions
- ❑ Energy use
- ❑ Fluorescent light bulbs
- ❑ Used batteries

c. If they haven't minimized waste are there barriers that are preventing them from doing it?

- ❑ Lack of information about practical alternatives.
- ❑ Lack of capital to make process changes.
- ❑ Lack of internal management support.
- ❑ The company does not generate enough waste to consider P2.
- ❑ Other reason given (specify):

2. Does the company plan to do P2 activities in the future? ☒Yes ❑No ❑N/A ___RMK#
Have a recycling committee

3. Would the company be interested in receiving additional information from Ohio EPA about P2? ❑Yes ❑No ❑N/A ___RMK#
Maybe

4. Did you give the company information about P2 during the inspection? ☒Yes ❑No ❑N/A ___RMK#
See letter

5. Would the company like a P2 assessment? ❑Yes ❑No ❑N/A ___RMK#
Maybe will call back

A. If yes, provide information that makes the company a good candidate for an assessment (i.e., known specific P2 opportunities exist, the company is willing to cooperate and commit resources to the assessment, the company fully understands DHWM's P2 assessment process, etc.)

B. If no, list the reasons the facility representative gave for not wanting an assessment.

Can't recycle/reuse ink since different colors get mixed. Some inks used because change color w/ heat.

If the company would like a P2 assessment done at their facility, the inspector must give the company representative a copy of the <u>Pollution Prevention for Hazardous Waste Generators</u> document and discuss it with them.

Campbells has expanded its by-products process so that non-saleable soup + beverage (canned) is shredded, separated + made into hog food. This keeps thousands of cans of food out of the landfill and provides useful farm food.

REMARKS

Michael Manager does an audit of the plant every 6 months.

Can plant sold to Silgan: Phil Cesen, Plt. Mgr.
Carolyn Oberhouse, Envir. Coord.

Heritage picks up waste video jet ink (CFCs)
They also supply and pick up Crystal Kleen solvent in parts washers throughout plant. This is a continual reuse program.

Process:
Ingredients to receiving → preparation areas (peal in steam pealers, remote eyes on potatoes, dice) → transmoves holding bins to kettles (600/700 gallon) → filler bowls → cans closed → cans coded once filled (video jet process) → cookers (AIB rotary or hydrostatic – 4-6 hours) → labeling → boxed → warehouse.
Very little hazardous waste since most materials used must be food grade materials.

tetrahydrofuran used in one labeling step. Very flammable If discarded would be U213 (I)(T).

Campbell's water treatment plant produces ~ 10 M gallons/day
Site also has large waste water treatment plant.

Spills of chemical → call Napoleon FD and Heritage or ERS

Kettles are cleaned w/ food grade cleaners
Waste water to on-site WWTP. (Soaps: nitric, phosphoric, caustic, bleach) Fluor tubes collected, boxed → Envir. Recycling.

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR REQUIREMENTS

WASTE EVALUATION

1. Have all wastes generated at the facility been evaluated? [3745-52-11] — Yes ___ No ☑ N/A ___ RMK# 1

GENERATOR CLASSIFICATION

2. Does the generator produce ≤100 kg. of hazardous waste per month? [conditionally exempt small quantity generator ("CESQG")] — Yes ✓ No ___ N/A ___ RMK# 2

NOTE: *If quantities of hazardous waste accumulated on-site at any one time exceed 1,000 Kg. - or the generator produces between 100 and 1,000 Kg of hazardous waste per month, it is operating as a Small Quantity Generator ("SQG"). **If so,** complete the Small Quantity Generator Requirements checklist.*

NOTE: *To convert from gallons to pounds:*

Amount in gallons x Specific Gravity x 8.345 = Amount in pounds

OFF-SITE SHIPMENT OF HAZARDOUS WASTE

3. Does the CESQG ensure delivery of hazardous waste(s) to an off-site permitted TSD? [3745-51-05(G)(3)] — Yes ✓ No ☐ N/A ___ RMK# ___

REMARKS

1. Campbell's generates a hazardous waste cleaning solvent from its video jet printing process. At the time of the inspection this was designated D001. The cleaning solvent - called Make Up is 68% MEK. Therefore, the waste must be designated F005 and all records must be revised. It has always been handled as a hazardous waste.

2. About 2 drums/year of ink waste (F005) and a very small amount of mercury from thermometers (D009). Occasionally (very) small amounts of paint waste (D001) from painting walls, stripes + nails.

Easterday FLUID TECHNOLOGIES, INC.

4343 S. Kansas Avenue, Milwaukee, Wisconsin 53235-5327 U.S.A.
Tel.: (414) 482-4488 Fax: (414) 482-3720

RECEIVED
NOV 14 2003
OHIO E.P.A.
N.W.D.O.

STATEMENT OF GUARANTY

RE: CONGRESS OF NORTHEASTERN GOVERNORS LEGISLATION

To whom it may concern:

We hereby certify that the following Easterday Jet Inks are in compliance with The Congress of Northeastern Governors Legislation. We do not add any lead, mercury, cadmium, or hexavalent chromium compounds to any of our products. Should these products contain any of these heavy metals, they would be present as impurities and the content would be less than 100 ppm, by weight.

#1325 Black to Red Thermal Jet Ink
#3000 Blue Jet Ink
#3200 Blue Jet Ink
 # 800 Makeup

Sincerely,

Ronald R. Easterday
President
EASTERDAY FLUID TECHNOLOGIES, INC.

November 12, 2003

From: Kara Reynolds
To: Kovacich, Michael
Date: 11/13/03 4:47PM
Subject: Re: Napoleon Risk Assessment

Michael,

I believe that a conference call is still required to discuss the statistical evaluation that CSC proposed and any other concerns that may come up before then. I will contact you with potential dates/times for that call ASAP.

Thanks,
Kara

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 11/13/03 12:39PM
Subject: Napoleon Risk Assessment

Kara,

Following our October 28, 2003 conference call, Campbell has provided written responses to all of the Ohio EPA's questions regarding the proposed risk assessment methods. We have sent materials via Fed Ex on 10/28/03 and via e-mail on 10/31/03 and 11/10/03. Provided below is a summary of the current proposed risk assessment methods based on recent input from the Ohio EPA.

PART 1) The closure unit is represented by the bermed area (soil that has been stockpiled above the native grade which is approximately 670 to 674 feet amsl) shown on Figure 7. The bermed area is characterized by all of the soil samples that remain on site (see the excel spreadsheet titled, "Draft Risk Assessment Entire Site.xls"). Per your 11/13/03 e-mail, the soil samples collected from PB-02-52 through PB-02-58 and MW-1 through MW-3 define the extent of the closure unit and will be added to our final risk calculation.

PART 2) The chemicals of concern (COCs) are presented in the June 27, 2003 Certification Report and Attachment A of the Notice of Deficiency.

PART 3) The risk assessment will consist of the following: The maximum concentrations of each COC, except for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and indeno(1,2,3-cd)pyrene (PAHs of concern), will be divided by their respective GCNs. The maximum concentrations of the four PAHs of concern will be substituted by the 95 percentile as calculated by the non-parametric Wilcoxon Signed Rank test. The Wilcoxon Signed Rank test will be performed for each of the PAHs of concern using all of the soil samples presented in PART 1 of this e-mail. Non-detect concentrations will be represented as 1/2 the laboratory reporting limit. The resulting ratios and 95 percentiles will be summed. A sum less than 1 indicates that the site will not pose an unacceptable risk to human health under residential exposure assumptions and that the site will be closed with no restrictions.

Campbell will provide any additional information requested by the Ohio EPA to help facilitate a decision regarding the proposed risk assessment methods.

We would appreciate approval or additional comments from the Ohio EPA regarding the proposed risk assesment methods, so we can complete the RCRA Closure Certification Report. If you feel a conference call is still needed please let us know.

Sincerely,

Michael Kovacich, CPG
Senior Hydrogeologist
GeoTrans, Inc.
phone: 734.213.5024
fax:734.213.500

CC: <osman_aly@campbellsoup.com>, <Michael.Terpinski@epa.state.oh.us>, <o.aly@worldnet.att.net>

From: Kara Reynolds
To: mkovacich@geotransinc.com; thumphriss@geotransinc.com
Date: 11/12/03 9:54AM
Subject: Raw Data

Michael,

Thank you, I was able to locate the document *Limited Subsurface Investigation, Former Holding Pit Area*.

I read over the e-mail that you sent to Erik. As far as the last comment concerning the berm area, the samples PB 02-52 through PB 02-58 and MW-1 through MW-3 should be included in the risk assessment. The CPRG requires the delineation of contamination from the unit to be completely defined. This requires a facility to find a boundary consisting of two consecutive sample points (both vertically and horizontally) with ND results for all COCs. The outermost sampling points (PB 02-52-PB 02-58, MW-1-MW-3) still have detections of COCs, which would require CSC to delineate the contamination outside of these points. However, OEPA has agreed to let these sampling points be considered the boundaries of the unit. Therefore, these samples shall be included in the risk assessment.

Please let me know if you have questions regarding this.

Thank you,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: Hagen, Erik; Terpinski, Michael



November 10, 2003 C.E.I.
Campbell Soup Company, 1273 State Route 110, Napoleon, Ohio 43545
Henry County
OHD 005419171
Former Holding Pit - Standing on the unit looking Northwest
Photo taken by Kara Reynolds

The vegetation covering the unit has been scraped off and piled.

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <erik.hagen@epa.state.oh.us>
Date: 11/10/03 7:25PM
Subject: Fwd: Napoleon Preliminary Risk Assessment Calculations

Erik,

You should have received a Fed Ex package from GeoTrans on October 29th or 30th. The figures included in the transmittal are current. However, a revised risk assessment spreadsheet was sent to the Ohio EPA, via e-mail, on October 31, 2003 (please see below). Please disregard the tables (Subset 1 and Subset 2) included in the Fed Ex package and review the October 31, 2003 e-mail and attachments.

The attached draft risk assessment spreadsheet includes all of the data used in our recent calculations. There are some data quality issues (minor data entry errors) with this sheet, we are currently reviewing the data and plan to issue a revised spreadsheet later this week. The data entry errors do not effect the calculations since the max concentrations were used for those parameters.

With regards to your recent question regarding the distribution of the four PAHs of concern, this spreadsheet will not address that question since 1/2 the detection limit is posted. The intent of the spreadsheet is to present values used to determine the 95 th percentiles for the four PAHs. You could look at the distribution of naphthalene to get an idea of the general distribution of the remaining SVOCs.

Please note: Investigative borings (PB-1 through PB-22 and PB-01-23 through PB-01-51) in the bermed area at this site identified several VOCs and SVOCs (chemicals of concern). All soil that was above a GCN was remediated, either by thermal treatment or off site disposal. The thermal plant effectively destroyed all VOCs, and reduced the SVOC concentrations. For example: Sample PB-01-34 from 8-9 feet below grade (approximately 679.5 feet amsl) exhibited the following concentrations of three PAHs: benzo(a)anthracene @ 16,000 ug/L, benzo(a)pyrene @ 14,000 ug/L, and benzo(b)fluoranthene @ 14,000 ug/L. Whereas our treated soil stockpile samples (VR samples) reported concentrations in the 500 ppb to 2000 ppb range for these COCs. A preliminary risk assessment was performed in Spring 2003 to determine if treated soil stockpiles could be returned to the excavation. The results from the preliminary risk assessment indicated that if three stockpiles with the highest PAH concentrations were disposed off site the remaining treated soil could be combined with the overburden soils and placed back into the excavation. Please see our Draft October 21, 2003 letter to Kara Reynolds for additional site history information.

I have responded to your specific questions below. I am out of the office until Thursday. Please contact Tesha Humphriss at (734) 213-4068 with any questions in my absence. I understand that you will be traveling this week and will not be able to attend a conference call until Friday, 11/14/03. I will check with Kara and Campbells to see if we can set up a conference call for Friday afternoon.

Sincerely,

Michael Kovacich, CPG
Senior Hydrogeologist
GeoTrans, Inc.
phone: 734.213.5024
fax:734.213.5008

>>> "Kara Reynolds" <Kara.Reynolds@epa.state.oh.us> 11/10/03 07:51AM >>>
Michael,

Here are some of the questions that I have gotten from Central Office. These are questions that we would like to be answered prior to a conference call.

1. The statistical evaluation that was sent to me had little detail. I'd like to see the dataset that was used and have an explanation of equations used to assign confidence intervals.

Please refer to the October 31, 2003, e-mail below. The data set that was used in the statistical software (Minitab) for the four PAHs is shown in the attached spreadsheet. If the PAH was not detected, 1/2 the detection limit is posted and was used for the statistical evaluation of the 4 PAHs. In general, an actual detection is greater than 330 ppb, and 1/2 the detection limit is less than 250 ppb.

2. Since I'm not as close to the project as most involved, I'd like to know what is the difference between subset 1 and subset 2. I did read the footnotes provide in the tables. It seems from these notes that these are the two subsets for risk that the facility had proposed. Is this true?

As described above, please disregard the tables sent to you via fed-ex that present Subset 1 and Subset 2. It is our understanding that the Ohio EPA and Campbell have agreed that one population will be used to represent the closure unit. The closure unit is the bermed area and all of the samples presented in the attached spreadsheet will be used to represent this population. Subset 1 and Subset 2 were combined to make this spreadsheet.

3. PAHs were detected in two side wall samples. At what depth were these samples taken?

In general, sidewall samples were taken between 2-feet and 5-feet below surface grade.

4. Did side wall samples contain PAH compounds that were not originally included by the facility in their risk assessment?

No, all parameters detected in the sidewall samples were identified during the initial site investigation, and were included in the risk assessment proposed in the Closure Plan.

5. Are the side wall samples included in the berm area?

Yes, please see explanation below.

A big question that seems to come up quite a lot is the "berm" area; which samples are you including in the "berm" area, etc.

Currently, the closure unit is defined as the bermed area (soil that has been stockpiled above the native grade which is approximately 670 to 674 feet amsl). Please refer to Figures 6 and 7 sent to you via fed ex. PB-02-52 through PB-02-58 and MW-1 through MW-3 were installed outside of the limits of the bermed area, and are not included in the risk assessment. The bermed area includes all samples that remain on-site within the limits defined by PB-02-52 through PB-02-58 and MW-1 through MW-3.

Please let me know if you have any questions.

Thanks,
Kara

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

>>> Michael Kovacich 10/31/03 04:55PM >>>
We have evaluated the One Sample Test For Proportion as it is presented in the EPA document: Guidance for Data Quality Assessment: Practical Methods for Data Analysis. EPA QA/G-P QA97 Version. The test is mathematically the same as a Sign Confidence Interval Test.

The Sign Confidence Interval Test can be easily calculated using Minitab Release 13 for Windows (Minitab). We have completed the calculation for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and indeno(1,2,3-cd)pyrene (the four PAHs). In the calculation we used 119 samples that currently represent the entire closure unit (remaining investigative samples, excavation floor and sidewalls, and the cover and treated soil backfill). Non detectable concentrations were included in the calculation at one half the reported detection limit. Please note, there are 141 samples representing the closure unit (the elevated area). However, only 119 of these samples were analyzed for SVOCs, and therefore only 119 were included in the Minitab calculation.

The EPA Guidance for Data Quality Assessment indicates that the Wilcoxon Rank Sum is the preferred method. We have included the results from that test using the same input listed above. The output from Minitab for both tests is attached. We have also attached our recent DRAFT risk assessment calculation. The spreadsheet combines the data in the two subsets sent previously and our recent calculation. Blank spaces represent either non-dectected parameters or parameters that were not tested. This will be resolved in the final spreadsheet. The calculation includes max concentrations for all compounds detected in samples that remain on site except the four PAHs where the 95 percentile as calculated by the Wilcoxon Rank Sum Test has been substituted.

Please review these attachments in preparation for our second conference next week. I am available on Friday possibly Thursday. If you should have any questions please give Tesha Humphriss a call in my absence at 734.213.4068.

Sincerely,

Michael Kovacich, CPG
Senior Hydrogeologist
GeoTrans, Inc.
phone: 734.213.5024
fax:734.213.5008

CC: <osman_aly@campbellsoup.com>, <Kara.Reynolds@epa.state.oh.us>, <Michael.Terpinski@epa.state.oh.us>, <o.aly@worldnet.att.net>

From: Kara Reynolds
To: mkovacich@geotransinc.com
Date: 11/10/03 7:51AM
Subject: Questions

Michael,

Here are some of the questions that I have gotten from Central Office. These are questions that we would like to be answered prior to a conference call.

1. The statistical evaluation that was sent to me had little detail. I'd like to see the dataset that was used and have an explanation of equations used to assign confidence intervals.

2. Since I'm not as close to the project as most involved, I'd like to know what is the difference between subset 1 and subset 2. I did read the footnotes provide in the tables. It seems from these notes that these are the two subsets for risk that the facility had proposed. Is this true?

3. PAHs were detected in two side wall samples. At what depth were these samples taken?

4. Did side wall samples contain PAH compounds that were not originally included by the facility in their risk assessment?

5. Are the side wall samples included in the berm area?

A big question that seems to come up quite a lot is the "berm" area; which samples are you including in the "berm" area, etc.

Please let me know if you have any questions.

Thanks,
Kara

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: Terpinski, Michael; thumphriss@geotransinc.com

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 11/7/03 3:40PM
Subject: Re: Draft Spreadsheet

Kara,

I have provided answers to your questions below.

Mike
>>> "Kara Reynolds" <Kara.Reynolds@epa.state.oh.us> 11/07/03 09:24AM
>>>
Michael,

I looked over the raw data in the closure plan and found some errors in the draft risk spreadsheet. I have attached a list of the errors that need to be changed in the spreadsheet. I also could not find the results for the following samples in the closure plan. Will you please send the following raw data sheets to me? We need to have a complete set for the closure plan.

We are performing a validation check on the data presented in the draft risk spreadsheet. Most of the errors that you listed have been identified during our recent check. I plan to have the updated risk spreadsheet to you by early next week.

All of the raw data from the samples analyzed from PB-1 through PB-22 for the depths listed below, were presented in our February 16, 2000, report titled, Limit Subsurface Investigation, Former Holding Pit Area. The analytical work was performed by BEC Laboratories in Toledo, Ohio and did not include analysis for SVOC. The presence of naphthalene in some of these samples prompted the inclusion of a full SVOC scan in subsequent investigations. Please let me know if you do not have that report and need copies of the raw analytical data sent to you. Is regular mail ok?

For VOCs:
PB 01 through PB 01-21 for the depth of 9.5-10 February 16, 2000, report
PB 15 (6-7) February 16, 2000, report
PB 20 (6-7) February 16, 2000, report
PB 01-21 (8-9) February 16, 2000, report
PB 01-22 (7-8) February 16, 2000, report
PB 01-48 (5-6) (11-12) (15-16) Presented in Appendix A of the Closure Plan on pages 121,122 & 123 of the New Age/Landmark Laboratory Analytical Report

For SVOCs:
PB 01 through PB 01-21 for the depth of 9.5-10 Not Analyzed
PB 01 (15-16) Not Analyzed
PB 15 (6-7) Not Analyzed
PB 20 (6-7) Not Analyzed
PB 21 (8-9) Not Analyzed
PB 22 (7-8) Not Analyzed
PB 47 (15-16) Not Analyzed

Please let me know if you have any questions.
Thank you,
Kara

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: <osman_aly@campbellsoup.com>, <o.aly@worldnet.att.net>

From: Erik Hagen
To: Kara Reynolds
Date: 11/7/03 11:25AM
Subject: Campbell's

Kara,

I've looked at the diagrams and tables that GeoTrans sent to us. My review has not been very detailed because of some time constraints that I didn't know about last week.

I do need some clarification on some points.

1. The statistical evaluation that was sent to me had little detail. I'd like to see the dataset that was used and have an explaination of equations used to assign confidence intervals.

2. Since I'm not as close to the project as most involved, I'd like to know what is the difference between subset 1 and subset 2. I did read the footnotes provide in the tables. It seems from these notes that these are the two subsets for risk that the facility had proposed. Is this true?

3. PAHs were detected in two side wall samples. At what depth were these samples taken?

4. Did side wall samples contain PAH compounds that were not originally included by the facility in their risk assessment?

5. Are the side wall samples included in the berm area?

6. I did not see the draft risk assessment, did the results indicate a benefit of further removal of material along the side wall? In other words would further removal of insitu materials and a limited resampling of remediation cause us to change our perspective on the risk assessment.

I'll look into this data set further and probably have more questions for you.

Give me a call if you'd like to discuss any of the questions.

Regards,
Erik

From: Kara Reynolds
To: mkovacich@geotransinc.com
Date: 11/7/03 9:24AM
Subject: Draft Spreadsheet

Michael,

I looked over the raw data in the closure plan and found some errors in the draft risk spreadsheet. I have attached a list of the errors that need to be changed in the spreadsheet. I also could not find the results for the following samples in the closure plan. Will you please send the following raw data sheets to me? We need to have a complete set for the closure plan.

For VOCs:
PB 01 through PB 01-21 for the depth of 9.5-10
PB 15 (6-7)
PB 20 (6-7)
PB 01-21 (8-9)
PB 01-22 (7-8)
PB 01-48 (5-6) (11-12) (15-16)

For SVOCs:
PB 01 through PB 01-21 for the depth of 9.5-10
PB 01 (15-16)
PB 15 (6-7)
PB 20 (6-7)
PB 21 (8-9)
PB 22 (7-8)
PB 47 (15-16)

Please let me know if you have any questions.
Thank you,
Kara

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: Terpinski, Michael; thumphriss@geotransinc.com

Errors Found in the Draft Risk Spreadsheet sent to Ohio EPA on 10/31/2003 Listed in ug/kg

PB 01 (7-8)	xylenes 54
PB 01 (11-12)	1,2 dibromo 3 chloropane 36
PB 15 (12-13)	xylenes 46
	1,2,4 trimethylbenzene 65
PB 01-23 (8-9)	xylenes 14
PB 01-23 (12-13)	chloromethane 510
PB 01-25 (15-16)	xylenes 160
PB 01-25 (18-19)	xylenes 46
PB 01-28 (12-13)	1-1 dichloropropene 25
	tetrachloroethene 38
	chlorobenzene 33
	bromobenzene 29
PB 01-29 (12-13)	xylenes 22
PB 01-31 (4-5)	Phenanthrene 570
	Fluoranthene 940
	Pyrene 700
	Chrysene 420
PB 01-31 (8-9)	xylenes 37
PB 01-31 (10-11)	xylenes 24
PB 01-32 (12-13)	1,2,4 trimethylbenzene 270
PB 01-34 (21-22)	1,2,4 trimethylbenzene 17
PB 01-34 (25-26)	bromobenzene 21
PB 01-38 (7-8)	xylenes 890
PB 01-39 (12-13)	chloromethane 350
	Xylenes 24
PB 01-40 (8-9)	chloromethane 56
PB 01-42 (14-15)	xylenes 32
PB 01-46 (17-18)	xylenes 68
PB 01-46 (20-21)	xylenes 120
PB 01-47 (4-5)	1,2,3 trichloropropane 35
	1,2 dibromo 3-chloropropane 69
PB 01-47 (8-9)	xylenes 13
PB 01-49 (7-8)	xylenes 27
PB 01-50 (3-4)	1,2,3 trichlorobenzene 330

From: "Tesha Humphriss" <thumphriss@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 11/4/03 9:31AM
Subject: Maximum Concentrations at the Campbell Napoleon Site

Kara,
In follow-up to our phone conversation yesterday. You were asking why the maximum concentration shown in Table 11 of the Certification Report was higher, for some parameters, than the maximum concentration shown in DRAFT Table (Risk Assessment Entire Site) sent to you via e-mail last Friday.

I have pulled up the electronic file from which Table 11 in the Certification Report was generated from. Unfortunately, there is a mistake in Table 11 (Estimates of Residual Risk) as presented in the Certification Report. The maximum concentration for each parameter was taken from a spreadsheet which included all 'post closure samples' (FL, SW, VR, CS and IS). The maximum concentration shown in Table 11 includes sample locations VR-03-04, VR-03-05 and VR-03-07. These samples were disposed of off site, and should not be included in the maximum concentration. Therefore, the maximum concentration for the following PNA's in the 'post closure samples' (minus VR-03-04, VR-03-05 and VR-03-07) should be changed in Table 11 as follows:

Anthracene (1300 ppb to 380 ppb)
Benzo (g,h,i) perylene (2500 to 850)
Carbozle (810 to 0)
Dibenzofuran (560 to 0)
Fluoranthene (9100 to 3400)
Fluorene (380 to 0)
Phenanthrene (6500 to 2500)
Pyrene (8000 to 2100)

In addition, the 'post closure samples' that were used to generate the maximum concentration for Table 11 included IS-02-02. This sampled failed the QA/QC for volatiles, and was re-sampled. By eliminating IS-02-02 and including IS-02-02 (2) in the 'post closure sample' set, the following maximum concentrations in Table 11 for VOCs should be changed as follows:

Ethlybenzene (1680 ppb to 270 ppb)
Toluene (35 to 20)
Total Xylenes (13020 to 920)

We are currently completing a check against the lab reports for all samples presented in the DRAFT Table (Risk Assessment Entire Site). We will have the quality check completed by Friday. Will the Ohio EPA be ready for a follow-up conference call on Friday?

Call me at the number below with any questions or concerns.
Thanks,
Tesha

Tesha Humphriss
Project Engineer

GeoTrans, Inc
(734) 213 4068 direct
(734) 213 5008 fax
thumphriss@geotransinc.com

CC: "Michael Kovacich" <mkovacich@geotransinc.com>

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 10/31/03 4:57PM
Subject: Napoleon Preliminary Risk Assessment Calculations

We have evaluated the One Sample Test For Proportion as it is presented in the EPA document: Guidance for Data Quality Assessment: Practical Methods for Data Analysis. EPA QA/G-P QA97 Version. The test is mathematically the same as a Sign Confidence Interval Test.

The Sign Confidence Interval Test can be easily calculated using Minitab Release 13 for Windows (Minitab). We have completed the calculation for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and indeno(1,2,3-cd)pyrene (the four PAHs). In the calculation we used 119 samples that currently represent the entire closure unit (remaining investigative samples, excavation floor and sidewalls, and the cover and treated soil backfill). Non detectable concentrations were included in the calculation at one half the reported detection limit. Please note, there are 141 samples representing the closure unit (the elevated area). However, only 119 of these samples were analyzed for SVOCs, and therefore only 119 were included in the Minitab calculation.

The EPA Guidance for Data Quality Assessment indicates that the Wilcoxon Rank Sum is the preferred method. We have included the results from that test using the same input listed above. The output from Minitab for both tests is attached. We have also attached our recent DRAFT risk assessment calculation. The spreadsheet combines the data in the two subsets sent previously and our recent calculation. Blank spaces represent either non-dectected parameters or parameters that were not tested. This will be resolved in the final spreadsheet. The calculation includes max concentrations for all compounds detected in samples that remain on site except the four PAHs where the 95 percentile as calculated by the Wilcoxon Rank Sum Test has been substituted.

Please review these attachments in preparation for our second conference next week. I am available on Friday possibly Thursday. If you should have any questions please give Tesha Humphriss a call in my absence at 734.213.4068.

Sincerely,

Michael Kovacich, CPG
Senior Hydrogeologist
GeoTrans, Inc.
phone: 734.213.5024
fax:734.213.5008

CC: <osman_aly@campbellsoup.com>, <erik.hagen@epa.state.oh.us>, <o.aly@worldnet.att.net>

Results for: Worksheet 3 Page One of Two

One Sample Test for Proportion a.k.a. Sign CI: Benzo(a)Anthracene

Sign confidence interval for median

	N	Median	Achieved Confidence	Confidence interval		Position
BaA (all	119	181.5	0.9333	(179.5,	185.5)	50
			0.9500	(179.5,	185.5)	NLI
			0.9563	(179.5,	185.5)	49

Wilcoxon Signed Rank CI: Benzo(a)Anthracene

	N	Estimated Median	Achieved Confidence	Confidence Interval	
BaA (all	119	185.8	95.0	(181.5,	193.0)

One Sample Proportion Test a.k.a. Sign CI: Benzo(a)Pyrene

Sign confidence interval for median

	N	Median	Achieved Confidence	Confidence interval		Position
BaP(all)	119	181.5	0.9333	(179.5,	183.5)	50
			0.9500	(178.2,	183.5)	NLI
			0.9563	(177.5,	183.5)	49

Wilcoxon Signed Rank CI: Benzo(a)Pyrene

	N	Estimated Median	Achieved Confidence	Confidence Interval	
BaP(all)	119	185.8	95.0	(179.5,	192.5)

Results for: Worksheet 3 Page Two of Two

One Sample Proportion Test a.k.a. Sign CI: Benzo(b)Fluoranthene

Sign confidence interval for median

	N	Median	Achieved Confidence	Confidence interval		Position
BbF(all)	119	181.5	0.9333	(179.5,	185.5)	50
			0.9500	(179.5,	185.5)	NLI
			0.9563	(179.5,	185.5)	49

Wilcoxon Signed Rank CI: Benzo(b)Fluoranthene

	N	Estimated Median	Achieved Confidence	Confidence Interval	
BbF(all)	119	185.8	95.0	(182.5,	194.5)

One Sample Proportion Test a.k.a. Sign CI: Indeno(1,2,3-cd)Pyrene

Sign confidence interval for median

	N	Median	Achieved Confidence	Confidence interval		Position
Indeno(a	119	179.5	0.9333	(165.0,	183.5)	50
			0.9500	(165.0,	183.5)	NLI
			0.9563	(165.0,	183.5)	49

Wilcoxon Signed Rank CI: Indeno(1,2,3-cd)Pyrene

	N	Estimated Median	Achieved Confidence	Confidence Interval	
Indeno(a	119	183.0	95.0	(177.3,	185.8)

DRAFT Table
Risk Analysis Entire Site
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	Direct Contact Soil Standard, Single Chemical (ug/kg)	Sample ID	Non-Cancer GCN	Cancer GCN	VR-02-01	VR-02-01 (2)	VR-02-01 (2) split	VR-02-02	VR-02-03	VR-03-06
		Sample Depth (feet bsg**)			--	--	--	--	--	--
		Sample Date	(mg/kg)	(mg/kg)	12/12/02	12/23/02	12/23/02	12/17/02	12/31/02	01/20/03
		Basis			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SVOCs										
Acenaphthylene	2,380,000	nc	2.38E+03	na	nd	nd	nd	162	nd	nd
Anthracene	12,100,000	nc	1.21E+04	na	nd	nd	nd	150	nd	nd
Benzo (a) Anthracene	4,630	ca	na	4.63E+00	165	165	330	180	610	810
Benzo (a) Pyrene	465	ca	na	4.65E-01	165	165	165	165	480	350
Benzo (b)Fluoranthene	4,600	ca	na	4.60E+00	570	165	350	193	590	850
Benzo (g,h,i) Perylene	1,500,000	nc	1.50E+03	na	nd	nd	390	180	650	780
Benzo (k) Fluoranthene	46,500	ca	na	4.65E+01	nd	nd	nd	nd	550	670
Benzoic Acid	167,000,000	nc	1.67E+05	na	nd	nd	nd	nd	nd	nd
Bis(2-ethylhexyl)phthalate	185,000	ca	6.38E+02	1.85E+02	nd	nd	nd	220	nd	nd
Carbazole	161,000	ca	na	1.61E+02						
Chrysene	457,000	ca	na	4.57E+02	370	nd	400	193	810	1200
Di-n-butyl phthalate	36,300	nc	3.63E+01	na	nd	nd	nd	160	nd	nd
Fluoranthene	1,650,000	nc	1.65E+03	na	870	nd	1100	850	1700	1900
Indeno (1,2,3-cd) Pyrene	4,650	ca	na	4.65E+00	165	165	165	165	370	550
2-Methylnaphthalene	54,600	nc	5.46E+01	na	nd	nd	nd	570	nd	nd
Naphthalene	54,600	nc	5.46E+01	na	530	14.3	980	nd	420	590
Phenanthrene	12,100,000	nc	1.21E+04	na	760	nd	1200	nd	1200	1600
Phenol	15,200,000	nc	1.52E+04	na	nd	nd		nd	nd	nd
Pyrene	1,500,000	nc	1.50E+03	na	910	nd	2300	nd	150	1700
VOCs										
Acetone	1,444,000	nc	1.44E+03	na	772	141	na	392	nd	nd
Benzene	6,850	nc	6.85E+00	6.87E+00	4	9	na	13	nd	nd
Bromodichloromethane	66,400	ca	1.01E+03	6.64E+01	nd	nd	na	nd	nd	nd
Bromoform	429,000	ca	8.37E+02	4.29E+02						
Bromomethane	3,770	nc	3.77E+00	na						
Butanone 2- (MEK)	6,600,000	nc	6.60E+03	na	99.3	nd	na	nd	nd	nd
Carbon Disulfide	350,000	nc	3.50E+02	na	nd	8	na	17	nd	nd
Chlorobenzene	50,200	nc	5.02E+01	na						
Chlorodibromomethane	40,400	ca	8.37E+02	4.04E+01	nd	nd	na	nd	nd	nd
Chloroform	2,410	ca	4.16E+01	2.41E+00	nd	nd	na	nd	nd	nd
Chloromethane	36,600	nc	3.66E+01	na						
2-Chlorotoluene	1,090,000	nc	1.09E+03	na						
4-Chlorotoluene	qualitative	na	na	na						
1,2-Dichlorobenzene	863,000	nc	8.63E+02	na						
1,3-Dichlorobenzene	409,000	nc	4.09E+02	na						
1,4-Dichlorobenzene	30,400	ca	3.37E+03	3.04E+01						
1,2-Dichloroethane	10,700	nc	1.07E+01	2.82E+01						
1,1-Dichloroethene	521	ca	1.97E+01	5.21E-01						
Ethylbenzene	1,370,000	nc	1.37E+03	na	4.3	nd	na	23	nd	nd
2-Hexanone	732,000	nc	7.32E+02	na	35.7	6	na	nd	nd	nd
Isopropylbenzene	1,590,000	nc	1.59E+03	na						
Methyl 4,-2-Propanone (MIBK)	728,000	nc	7.28E+02	na	35.9	nd	na	160	nd	nd
Methylene chloride	1,630,000	nc	1.63E+03	na						
n-Butylbenzene	545,000	nc	5.45E+02	na						
n-Propylbenzene	545,000	nc	5.45E+02	na						
p-Isopropyltoluene	573,000	nc	5.73E+02	na						
sec-Butylbenzene	545,000	nc	5.45E+02	na						
Styrene	3,990,000	nc	3.99E+03	na						
tert-Butylbenzene	545,000	nc	5.45E+02	na						
1,1,2,2-Tetrachloroethane	3,560	ca	na	3.56E+00						

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1,2,3-Trichlorobenzene	8,180	nc	8.18E+00	na						
1,2,4-Trichlorobenzene	105,000	nc	1.05E+02	na						
1,2,4-Trimethylbenzene	22,300	nc	2.23E+01	na						
1,3,5-Trimethylbenzene	19,400	nc	1.94E+01	na	nd	4	na	nd	nd	nd
Toluene	574,000	nc	5.74E+02	na	5.1	11	na	17	nd	nd
Total Xylenes	1,470,000	nc	1.47E+03	na	nd	32	na	91	nd	nd
trans-1,2-Dichloroethene	62,200	nc	6.22E+01	na						
Trichloroethene	22,400	nc	2.24E+01	2.70E+01						
Trichlorofluoromenthane	358,000	nc	3.58E+02	na						
Vinyl Acetate	424,000	nc	4.24E+02	na	nd	nd	na	nd	nd	nd
Vinyl Chloride	1,280	ca	3.60E+01	1.28E+00	nd	nd	na	18	nd	nd

Notes:
na = not analyzed
nd = non-detect
*** - failed QA/QC for VOCs, resampled and not included in risk assesment

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Risk Analysis Entire Site
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Chemical of Concern Identified at the Site	VR-03-08	VR-03-09	VR-03-09 unscreened	VR-03-10	VR-03-11	VR-03-12	VR-03-13	VR-03-14	CS-02-01	CS-02-02	CS-02-03	CS-02-04	CS-02-05	CS-02-06	CS-02-07
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/10/03 (µg/kg)	02/10/03 (µg/kg)	02/10/03 (µg/kg)	02/14/03 (µg/kg)	02/14/03 (µg/kg)	02/18/03 (µg/kg)	02/18/03 (µg/kg)	02/20/03 (µg/kg)	12/06/02 (µg/kg)	12/06/02 (µg/kg)	12/06/02 (µg/kg)	12/06/02 (µg/kg)	12/11/02 (µg/kg)	12/11/02 (µg/kg)	12/11/02 (µg/kg)
SVOCs															
Acenaphthylene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Anthracene	nd	nd	nd	360	380	nd	360	nd	nd	nd	nd	nd	nd	nd	nd
Benzo (a) Anthracene	420	780	165	750	910	460	830	440	165	170	210	165	165	165	165
Benzo (a) Pyrene	350	920	165	630	740	370	660	370	165	165	165	165	165	165	165
Benzo (b)Fluoranthene	510	900	400	850	1100	550	1300	540	165	165	450	165	165	165	165
Benzo (g,h,i) Perylene	400	660	330	640	700	370	840	850	nd	nd	nd	nd	nd	nd	nd
Benzo (k) Fluoranthene	nd	670	nd	780	980	440	710	480	nd	nd	nd	nd	nd	nd	nd
Benzoic Acid	nd	nd	nd	1300	2500	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bis(2-ethylhexyl)phthalate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbazole															
Chrysene	600	1000	470	970	1200	590	1200	620	nd	nd	nd	nd	nd	nd	nd
Di-n-butyl phthalate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	1100	1200	1100	3100	3400	1600	3200	1800	nd	nd	630	nd	nd	nd	190
Indeno (1,2,3-cd) Pyrene	165	510	165	460	540	165	640	450	165	165	165	165	165	165	165
2-Methylnaphthalene	nd	nd	nd	340	380	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	480	400	490	1600	1300	500	1100	1000	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	940	770	800	2400	2500	1100	2400	1600	nd	160	460	nd	nd	nd	nd
Phenol	nd	nd	480	540	640	nd	nd	880	nd	nd	nd	nd	nd	nd	nd
Pyrene	740	970	560	1900	2100	750	1500	1400	nd	nd	510	nd	nd	nd	180
VOCs															
Acetone	nd	nd	na	nd	nd	nd	nd	nd	nd	398	54	54	nd	88	38
Benzene	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	nd	nd	na	nd	nd	nd	nd	nd	5	31	7	27	5	15	nd
Bromoform															
Bromomethane															
Butanone 2- (MEK)	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbon Disulfide	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	4	4	nd	nd	nd
Chlorobenzene															
Chlorodibromomethane	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	11	nd	5	nd
Chloroform	nd	nd	na	nd	nd	nd	nd	nd	17	145	65	46	57	64	22
Chloromethane															
2-Chlorotoluene															
4-Chlorotoluene															
1,2-Dichlorobenzene															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
1,2-Dichloroethane															
1,1-Dichloroethene															
Ethylbenzene	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Hexanone	nd	nd	na	nd	nd	nd	nd	nd	nd	17	nd	nd	nd	nd	nd
Isopropylbenzene															
Methyl 4,-2-Propanone (MIBK)	nd	nd	na	nd	nd	nd	nd	nd	7	nd	nd	nd	nd	nd	nd
Methylene chloride															
n-Butylbenzene															
n-Propylbenzene															
p-Isopropyltoluene															
sec-Butylbenzene															
Styrene															
tert-Butylbenzene															
1,1,2,2-Tetrachloroethane															

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1,2,3-Trichlorobenzene															
1,2,4-Trichlorobenzene															
1,2,4-Trimethylbenzene															
1,3,5-Trimethylbenzene	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene															
Trichloroethene															
Trichlorofluoromenthane															
Vinyl Acetate	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	7	10	6
Vinyl Chloride	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

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Risk Analysis Entire Site
Campbell Soup Supply Company
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Chemical of Concern Identified at the Site	CS-02-08	CS-02-09	CS-02-10	CS-02-11	CS-02-12	CS-02-13	CS-02-14	CS-02-15	CS-02-16	CS-02-17	IS-02-01	IS-02-02***	IS-02-02 (2)	IS-02-03	FL-2
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	12/11/02 (µg/kg)	12/11/02 (µg/kg)	12/10/02 (µg/kg)	12/10/02 (µg/kg)	12/10/02 (µg/kg)	12/10/02 (µg/kg)	12/10/02 (µg/kg)	12/10/02 (µg/kg)	12/10/02 (µg/kg)	12/10/02 (µg/kg)	12/18/02 (µg/kg)	12/18/03 (µg/kg)	03/27/03 (µg/kg)	12/18/02 (µg/kg)	02/28/03 (µg/kg)
SVOCs															
Acenaphthylene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	
Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	
Benzo (a) Anthracene	165	1,160	165	165	165	165	165	165	nd	165	165	165	na	165	165
Benzo (a) Pyrene	165	1,080	165	165	165	165	180	165	330	165	165	165	na	165	165
Benzo (b)Fluoranthene	370	1,940	165	170	165	165	370	165	330	165	165	165	na	165	165
Benzo (g,h,i) Perylene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	
Benzo (k) Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	
Benzoic Acid	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	
Bis(2-ethylhexyl)phthalate	nd	13,000	nd	nd	nd	nd	nd	nd	nd	nd	nd	672	na	187	
Carbazole															nd
Chrysene	nd	1,170	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd
Di-n-butyl phthalate	nd	350	nd	nd	nd	nd	nd	nd	nd	nd	nd	280	na	nd	nd
Fluoranthene	350	nd	nd	nd	270	190	nd	nd	nd	nd	nd	182	na	nd	nd
Indeno (1,2,3-cd) Pyrene	165	590	165	165	165	165	165	165	330	165	165	165	na	165	165
2-Methylnaphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	150	1260	na	nd	nd
Naphthalene	nd	480	nd	nd	nd	nd	nd	nd	nd	nd	750	7600	na	622	450
Phenanthrene	nd	1,440	nd	nd	nd	nd	290	nd	nd	nd	nd	193	na	nd	nd
Phenol	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd
Pyrene	330	2,040	nd	nd	260	190	nd	nd	nd	nd	nd	nd	na	nd	nd
VOCs															
Acetone	53	77	27	31	26	43	77	57	nd	58	116	***	nd	108	nd
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd	4	nd
Bromodichloromethane	nd	6	4	3	nd	nd	nd	nd	nd	nd	nd	***	nd	nd	
Bromoform												***			nd
Bromomethane												***			nd
Butanone 2- (MEK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd	13	nd
Carbon Disulfide	4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd	nd	
Chlorobenzene												***			nd
Chlorodibromomethane	3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd	nd	
Chloroform	9	37	18	6	4	3	4	7	4	4	13	***	nd	nd	nd
Chloromethane												***			nd
2-Chlorotoluene												***			nd
4-Chlorotoluene												***			nd
1,2-Dichlorobenzene												***			nd
1,3-Dichlorobenzene												***			nd
1,4-Dichlorobenzene												***			nd
1,2-Dichloroethane												***			nd
1,1-Dichloroethene												***			nd
Ethylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	132	***	nd	29	nd
2-Hexanone	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	53	***	nd	21	
Isopropylbenzene												***			nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	55	***	nd	22	nd
Methylene chloride												***			nd
n-Butylbenzene												***			nd
n-Propylbenzene												***			nd
p-Isopropyltoluene												***			nd
sec-Butylbenzene												***			nd
Styrene												***			nd
tert-Butylbenzene												***			nd
1,1,2,2-Tetrachloroethane												***			nd

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Risk Analysis Entire Site
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Napoleon, Ohio

1,2,3-Trichlorobenzene												***			nd
1,2,4-Trichlorobenzene												***			nd
1,2,4-Trimethylbenzene												***			nd
1,3,5-Trimethylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd	nd	nd
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	12	nd	nd	***	nd	8	nd
Total Xylenes	nd	4	nd	nd	6	3	4	4	9	3	nd	***	nd	162	nd
trans-1,2-Dichloroethene												***			nd
Trichloroethene												***			nd
Trichlorofluoromenthane												***			nd
Vinyl Acetate	6	12	7	9	8	6	9	10	8	6	nd	***	nd	24	nd
Vinyl Chloride	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd	nd	

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Risk Analysis Entire Site
Campbell Soup Supply Company
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Chemical of Concern Identified at the Site	FL-8	FL-10	FL-13	FL-15	FL-18	FL-20	FL-22	FL-29	FL-35	SW-36	SW-38 (2)	SW-40	SW-41 (2)
	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/03	02/20/03	03/27/03	02/26/03	02/26/03	02/28/03	02/10/03	02/27/03	12/23/02	12/23/02	03/12/03	02/10/03	03/17/03
	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
SVOCs													
Acenaphthylene													
Anthracene													
Benzo (a) Anthracene	165	165	165	165	165	165	165	165	165	165	165	330	165
Benzo (a) Pyrene	165	165	165	165	165	165	165	165	165	165	165	380	165
Benzo (b)Fluoranthene	165	165	165	165	165	165	165	165	165	165	165	165	165
Benzo (g,h,i) Perylene													
Benzo (k) Fluoranthene													
Benzoic Acid													
Bis(2-ethylhexyl)phthalate													
Carbazole	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	510	nd
Di-n-butyl phthalate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	610	nd
Indeno (1,2,3-cd) Pyrene	165	165	165	165	165	165	165	165	165	165	165	165	165
2-Methylnaphthalene	nd	nd	nd	460	nd	nd	nd	nd	nd	nd	510	2,200	nd
Naphthalene	450	nd	nd	3200	nd	nd	nd	560	nd	nd	8,600	1,600	nd
Phenanthrene	nd	nd	nd	nd	nd	nd	740	nd	nd	nd	nd	1,200	nd
Phenol	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	nd	nd	nd	nd	nd	nd	570	nd	nd	nd	nd	610	nd
VOCs													
Acetone	nd	nd	nd	nd	nd	nd	nd	nd	40	47	nd	nd	nd
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane													
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbon Disulfide													
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chlorodibromomethane													
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	na	nd
4-Chlorotoluene	nd	nd	nd	nd	nd	nd	na	nd	nd	na	nd	na	nd
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	19	nd	nd	nd	nd	4	3	270	nd	nd
2-Hexanone													
Isopropylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	24	nd	nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	91	nd	nd
n-Propylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	110	nd	nd
p-Isopropyltoluene	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	29	na	nd
sec-Butylbenzene	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	na	nd
Styrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	na	nd
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

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1,2,3-Trichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	nd	nd	nd	78	nd	nd	nd	17	nd	nd	790	nd	nd
1,3,5-Trimethylbenzene	nd	nd	nd	120	nd	nd	nd	nd	nd	nd	210	nd	nd
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	4	nd	nd	nd
Total Xylenes	nd	nd	nd	120	nd	nd	nd	nd	9	9	920	nd	nd
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	nd	nd	nd	nd	nd	nd	nd	nd	nd	20	nd	nd	nd
Vinyl Chloride													

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Risk Analysis Entire Site
Campbell Soup Supply Company
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Chemical of Concern Identified at the Site	SW-46 (4)	SW-46-6'	SW-49	SW-53	SW-54	PB-1	PB-2	PB-3	PB-4	PB-5	PB-6	PB-7	PB-8
	--	--	--	--	--	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10
	04/10/03	04/03/03	02/28/03	02/14/03	01/10/03	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99
	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
SVOCs													
Acenaphthylene						na	na	na	na	na	na	na	na
Anthracene						na	na	na	na	na	na	na	na
Benzo (a) Anthracene	165	165	330	350	165	na	na	na	na	na	na	na	na
Benzo (a) Pyrene	165	165	330	165	165	na	na	na	na	na	na	na	na
Benzo (b)Fluoranthene	165	165	330	165	165	na	na	na	na	na	na	na	na
Benzo (g,h,i) Perylene						na	na	na	na	na	na	na	na
Benzo (k) Fluoranthene						na	na	na	na	na	na	na	na
Benzoic Acid						na	na	na	na	na	na	na	na
Bis(2-ethylhexyl)phthalate						na	na	na	na	na	na	na	na
Carbazole	nd	nd	nd	nd	nd	na	na	na	na	na	na	na	na
Chrysene	nd	nd	nd	370	nd	na	na	na	na	na	na	na	na
Di-n-butyl phthalate	nd	nd	nd	nd	nd	na	na	na	na	na	na	na	na
Fluoranthene	nd	nd	nd	820	nd	na	na	na	na	na	na	na	na
Indeno (1,2,3-cd) Pyrene	165	165	330	165	165	na	na	na	na	na	na	na	na
2-Methylnaphthalene	nd	nd	nd	nd	nd	na	na	na	na	na	na	na	na
Naphthalene	nd	4,900	2,500	920	470	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	nd	nd	nd	560	nd	na	na	na	na	na	na	na	na
Phenol	nd	nd	nd	nd	nd	na	na	na	na	na	na	na	na
Pyrene	nd	nd	nd	560	nd	na	na	na	na	na	na	na	na
VOCs													
Acetone	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane													
Bromoform	16	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbon Disulfide													
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chlorodibromomethane													
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	nd	nd	nd	nd	na	na	na	na	na	na	na	na	na
4-Chlorotoluene	nd	nd	nd	nd	na	na	na	na	na	na	na	na	na
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	4.4	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	19	170	nd	nd	nd	2.4	nd	nd	nd	2	nd	nd	nd
2-Hexanone													
Isopropylbenzene	nd	nd	nd	nd	nd	na	na	na	na	na	na	na	na
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	nd	nd	nd	nd	nd	na	na	na	na	na	na	na	na
n-Propylbenzene	nd	61	nd	nd	nd	na	na	na	na	na	na	na	na
p-Isopropyltoluene	nd	nd	nd	nd	na	na	na	na	na	na	na	na	na
sec-Butylbenzene	nd	nd	nd	nd	na	na	na	na	na	na	na	na	na
Styrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	nd	nd	nd	nd	na	na	na	na	na	na	na	na	na
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

DRAFT Table
Risk Analysis Entire Site
Campbell Soup Supply Company
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1,2,3-Trichlorobenzene	nd	nd	nd	nd	nd	na	na	na	na	na	na	na	na
1,2,4-Trichlorobenzene	nd	nd	nd	nd	nd	na	na	na	na	na	na	na	na
1,2,4-Trimethylbenzene	nd	nd	13	nd	nd	na	na	na	na	na	na	na	na
1,3,5-Trimethylbenzene	28	220	nd	nd	nd	na	na	na	na	na	na	na	na
Toluene	20	nd	nd	nd	nd	2.2	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	nd	nd	nd	nd	nd	11.4	nd	2.8	nd	2.2	nd	nd	nd
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Chloride													

Notes:
na = not analyzed
nd = non-detect
*** - failed QA/QC for VOCs, resampled and not include

DRAFT Table
Risk Analysis Entire Site
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	PB-9	PB-10	PB-11	PB-12	PB-13	PB-14	PB-15	PB-16	PB-17	PB-18	PB-19	PB-22	PB-01
	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	7-8	7-8
	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/03/99	12/02/99	12/03/99	12/03/99	12/03/99	12/03/99	05/25/01
	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
SVOCs													
Acenaphthylene	na	na	na	na	na	na	na	na	na	na	na	na	
Anthracene	na	na	na	na	na	na	na	na	na	na	na	na	
Benzo (a) Anthracene	na	na	na	na	na	na	na	na	na	na	na	na	183.5
Benzo (a) Pyrene	na	na	na	na	na	na	na	na	na	na	na	na	183.5
Benzo (b)Fluoranthene	na	na	na	na	na	na	na	na	na	na	na	na	183.5
Benzo (g,h,i) Perylene	na	na	na	na	na	na	na	na	na	na	na	na	
Benzo (k) Fluoranthene	na	na	na	na	na	na	na	na	na	na	na	na	
Benzoic Acid	na	na	na	na	na	na	na	na	na	na	na	na	
Bis(2-ethylhexyl)phthalate	na	na	na	na	na	na	na	na	na	na	na	na	
Carbazole	na	na	na	na	na	na	na	na	na	na	na	na	nd
Chrysene	na	na	na	na	na	na	na	na	na	na	na	na	nd
Di-n-butyl phthalate	na	na	na	na	na	na	na	na	na	na	na	na	nd
Fluoranthene	na	na	na	na	na	na	na	na	na	na	na	na	nd
Indeno (1,2,3-cd) Pyrene	na	na	na	na	na	na	na	na	na	na	na	na	183.5
2-Methylnaphthalene	na	na	na	na	na	na	na	na	na	na	na	na	nd
Naphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	45.9	nd	nd
Phenanthrene	na	na	na	na	na	na	na	na	na	na	na	na	nd
Phenol	na	na	na	na	na	na	na	na	na	na	na	na	nd
Pyrene	na	na	na	na	na	na	na	na	na	na	na	na	nd
VOCs													
Acetone	nd	nd	nd	63.5	nd	nd	nd	nd	70.6	nd	70.3	nd	510
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane													
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)	nd	nd	62.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbon Disulfide													
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chlorodibromomethane													
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	na	na	na	na	na	na	na	na	na	na	na	na	nd
4-Chlorotoluene	na	na	na	na	na	na	na	na	na	na	na	na	nd
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	nd	nd	nd	9.1	nd	nd	4.3	nd	nd	nd
2-Hexanone													
Isopropylbenzene	na	na	na	na	na	na	na	na	na	na	na	na	nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	83.2	nd	nd
Methylene chloride	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	77
n-Butylbenzene	na	na	na	na	na	na	na	na	na	na	na	na	nd
n-Propylbenzene	na	na	na	na	na	na	na	na	na	na	na	na	nd
p-Isopropyltoluene	na	na	na	na	na	na	na	na	na	na	na	na	nd
sec-Butylbenzene	na	na	na	na	na	na	na	na	na	na	na	na	nd
Styrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	na	na	na	na	na	na	na	na	na	na	na	na	nd
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

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1,2,3-Trichlorobenzene	na	na	na	na	na	na	na	na	na	na	na	na	nd
1,2,4-Trichlorobenzene	na	na	na	na	na	na	na	na	na	na	na	na	nd
1,2,4-Trimethylbenzene	na	na	na	na	na	na	na	na	na	na	na	na	43
1,3,5-Trimethylbenzene	na	na	na	na	na	na	na	na	na	na	na	na	nd
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	4.8	nd	nd	nd	nd	nd	38.4	nd	2.1	25.1	11.4	nd	nd
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
Vinyl Chloride													

Notes:
na = not analyzed
nd = non-defect
*** - failed QA/QC for VOCs, resampled and not include

DRAFT Table
Risk Analysis Entire Site
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	PB-01 11-12 05/25/01 (µg/kg)	PB-01 15-16 05/25/01 (µg/kg)	PB-16 12-13 05/25/01 (µg/kg)	PB-16 15-16 05/25/01 (µg/kg)	PB-01-23 8-9 05/22/01 (µg/kg)	PB-01-23 12-13 05/22/01 (µg/kg)	PB-01-25 12-13 05/22/01 (µg/kg)	PB-01-25 14-15 05/25/01 (µg/kg)	PB-01-25 15-16 05/22/01 (µg/kg)	PB-01-25 18-19 05/25/01 (µg/kg)	PB-01-27 13-14 05/22/01 (µg/kg)	PB-01-27 15-16 05/22/01 (µg/kg)	PB-01-28 7-8 05/22/01 (µg/kg)
SVOCs													
Acenaphthylene													
Anthracene													
Benzo (a) Anthracene	165	183.5	181.5	185.5	235.5	206.5	206.5	179.5	235.5	179.5	206.5	235.5	183.5
Benzo (a) Pyrene	165	183.5	181.5	185.5	235.5	206.5	206.5	179.5	235.5	179.5	206.5	235.5	183.5
Benzo (b)Fluoranthene	165	183.5	181.5	185.5	235.5	206.5	206.5	179.5	235.5	179.5	206.5	235.5	183.5
Benzo (g,h,i) Perylene													
Benzo (k) Fluoranthene													
Benzoic Acid													
Bis(2-ethylhexyl)phthalate													
Carbazole	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Di-n-butyl phthalate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Indeno (1,2,3-cd) Pyrene	165	183.5	181.5	185.5	235.5	206.5	206.5	179.5	235.5	179.5	206.5	235.5	183.5
2-Methylnaphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenol	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VOCs													
Acetone	510	440	840	540	300	400	390	520	nd	460	135	140	260
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	13
Bromodichloromethane													
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	100	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)	nd	nd	nd	nd	150	140	200	nd	nd	nd	81	79	120
Carbon Disulfide													
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chlorodibromomethane													
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	11
4-Chlorotoluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	12
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	11
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	6.6	nd	nd	nd	nd	nd	13
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	17
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	14	nd	44
2-Hexanone													
Isopropylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	nd	49	nd	nd	31	22	15	nd	nd	75	38	49	63
n-Butylbenzene	36	nd	nd	nd	nd	nd	13	nd	nd	49	8.8	13	22
n-Propylbenzene	nd	nd	nd	nd	nd	nd	6.9	nd	nd	nd	nd	nd	23
p-Isopropyltoluene	nd	nd	nd	nd	nd	nd	9.4	nd	nd	nd	nd	nd	17
sec-Butylbenzene	nd	nd	nd	nd	nd	nd	6.9	nd	nd	nd	nd	nd	15
Styrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	6.7
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

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1,2,3-Trichlorobenzene	34	nd	nd	nd	27	nd	32	nd	nd	nd	nd	nd	38
1,2,4-Trichlorobenzene	nd	nd	nd	nd	nd	nd	26	nd	nd	nd	nd	nd	36
1,2,4-Trimethylbenzene	96	nd	64	nd	17	nd	19	69	830	110	32	19	33
1,3,5-Trimethylbenzene	37	nd	34	nd	nd	nd	9.4	40	380	28	12	nd	15
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	39
Total Xylenes	126	nd	nd	nd	nd	nd	nd	77	nd	nd	62	nd	175
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	51	45	57	74	nd	nd	14	29	nd	43	nd	nd	nd
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	na	na	na	na	na	na	na	na	na	na	na	na	na
Vinyl Chloride													

Notes:
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nd = non-detect
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DRAFT Table
Risk Analysis Entire Site
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	PB-01-28 12-13 05/22/01 (µg/kg)	PB-01-28 15-16 05/22/01 (µg/kg)	PB-01-29 12-13 05/22/01 (µg/kg)	PB-01-29 14-15 05/22/01 (µg/kg)	PB-01-31 4-5 05/22/01 (µg/kg)	PB-01-31 8-9 05/22/01 (µg/kg)	PB-01-31 10-11 05/22/01 (µg/kg)	PB-01-32 12-13 05/23/01 (µg/kg)	PB-01-32 14-15 05/23/01 (µg/kg)	PB-01-34 21-22 05/23/01 (µg/kg)	PB-01-34 25-26 05/23/01 (µg/kg)	PB-01-35 16-17 05/25/01 (µg/kg)	PB-01-35 20-21 05/25/01 (µg/kg)
SVOCs													
Acenaphthylene													
Anthracene													
Benzo (a) Anthracene	206.5	206.5	206.5	206.5	206.5	275	209	181.5	180	181.5	165	165	181.5
Benzo (a) Pyrene	206.5	206.5	206.5	206.5	206.5	275	209	181.5	180	181.5	165	165	181.5
Benzo (b)Fluoranthene	206.5	206.5	206.5	206.5	206.5	275	209	181.5	180	181.5	165	165	181.5
Benzo (g,h,i) Perylene													
Benzo (k) Fluoranthene													
Benzoic Acid													
Bis(2-ethylhexyl)phthalate													
Carbazole	nd	nd	nd	nd	420	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Di-n-butyl phthalate	nd	nd	nd	nd	940	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Indeno (1,2,3-cd) Pyrene	206.5	206.5	206.5	206.5	206.5	275	209	181.5	180	181.5	165	165	181.5
2-Methylnaphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	nd	nd	nd	nd	570	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenol	nd	nd	nd	nd	700	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VOCs													
Acetone	170	190	108	190	280	360	300	390	nd	410	320	480	320
Benzene	32	nd	nd	nd	nd	nd	nd	nd	nd	nd	13	nd	nd
Bromodichloromethane													
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)	110	92	77	130	99	190	nd	230	nd	140	180	nd	nd
Carbon Disulfide													
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	22	nd	nd
Chlorodibromomethane													
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	82	130	nd	nd	180	150	127	92	nd	nd	nd	nd	nd
2-Chlorotoluene	41	nd	11	8.1	9.4	nd	8.9	nd	nd	nd	28	nd	nd
4-Chlorotoluene	46	nd	12	9.4	20	10	7	13	nd	nd	36	nd	nd
1,2-Dichlorobenzene	37	nd	nd	nd	nd	nd	nd	nd	nd	nd	34	nd	nd
1,3-Dichlorobenzene	45	nd	9.4	6.9	9.4	11	7.6	nd	nd	nd	34	nd	nd
1,4-Dichlorobenzene	51	nd	nd	nd	nd	nd	nd	nd	nd	nd	33	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	15	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	56	nd	13	16	52	nd	nd	19	nd	nd	40	nd	nd
2-Hexanone													
Isopropylbenzene	39	nd	nd	nd	nd	nd	nd	nd	nd	nd	26	nd	nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	78	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	57	52	59	56	35	37	32	38	nd	24	25	nd	nd
n-Butylbenzene	52	17	19	15	24	14	12	95	nd	12	57	nd	nd
n-Propylbenzene	53	nd	16	12	30	9.2	11	21	nd	6.1	32	nd	nd
p-Isopropyltoluene	42	8.1	13	10	64	11	11	35	nd	7.2	41	nd	nd
sec-Butylbenzene	33	nd	13	7.5	21	11	8.2	21	nd	6.6	33	nd	nd
Styrene	31	nd	nd	ND	nd	nd	nd	nd	nd	nd	22	nd	nd
tert-Butylbenzene	22	nd	8.1	nd	7.5	nd	nd	nd	nd	nd	20	nd	nd
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	29	nd	nd	nd	nd	nd	nd	nd	nd

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1,2,3-Trichlorobenzene	86	19	18	21	18	21	18	nd	nd	15	64	36	nd
1,2,4-Trichlorobenzene	87	18	14	16	18	17	16	14	nd	12	64	41	nd
1,2,4-Trimethylbenzene	57	16	16	26	180	26	15	260	270	nd	96	nd	nd
1,3,5-Trimethylbenzene	41	9.4	13	19	89	21	8.2	66	nd	7.7	46	nd	nd
Toluene	94	nd	nd	nd	31	nd	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	194	nd	nd	51	406	nd	nd	108	nd	nd	154	nd	nd
trans-1,2-Dichloroethene	21	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	34	nd	33	nd	nd	nd	nd	13	nd	nd	26	nd	46
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	na	na	na	na	na	na	na	na	na	na	na	na	na
Vinyl Chloride													

Notes:
na = not analyzed
nd = non-detect
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DRAFT Table
Risk Analysis Entire Site
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	PB-01-36 4-5 05/23/01 (µg/kg)	PB-01-36 8-9 05/23/01 (µg/kg)	PB-01-36 12-13 05/23/01 (µg/kg)	PB-01-37 4-5 05/25/01 (µg/kg)	PB-01-37 8-9 05/25/01 (µg/kg)	PB-01-37 12-13 05/23/01 (µg/kg)	PB-01-38 7-8 05/23/01 (µg/kg)	PB-01-38 11-12 05/23/01 (µg/kg)	PB-01-38 13-14 05/23/01 (µg/kg)	PB-01-39 4-5 05/23/01 (µg/kg)	PB-01-39 7-8 05/23/01 (µg/kg)	PB-01-39 12-13 05/23/01 (µg/kg)	PB-01-40 4-5 05/24/01 (µg/kg)
SVOCs													
Acenaphthylene													
Anthracene													
Benzo (a) Anthracene	179.5	165	179.5	181.5	201	192	165	179.5	181.5	181.5	192	194	183.5
Benzo (a) Pyrene	179.5	165	179.5	181.5	201	192	165	179.5	181.5	181.5	192	194	183.5
Benzo (b)Fluoranthene	179.5	165	179.5	181.5	201	192	165	179.5	181.5	181.5	192	194	183.5
Benzo (g,h,i) Perylene													
Benzo (k) Fluoranthene													
Benzoic Acid													
Bis(2-ethylhexyl)phthalate													
Carbazole	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Di-n-butyl phthalate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Indeno (1,2,3-cd) Pyrene	179.5	165	179.5	181.5	201	192	165	179.5	181.5	181.5	192	194	183.5
2-Methylnaphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenol	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VOCs													
Acetone	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	340	nd
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	83
Bromodichloromethane													
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	110	nd
Butanone 2- (MEK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	140	nd
Carbon Disulfide													
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chlorodibromomethane													
Chloroform	nd	nd	56	nd	nd	nd	52	nd	nd	nd	nd	nd	nd
Chloromethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	nd	nd	nd	1400	nd	nd	nd	nd	nd	400
2-Hexanone													
Isopropylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	210
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	nd	nd	700	nd	nd	nd	300	nd	nd	420	nd	nd	nd
n-Butylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	130
n-Propylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	230
p-Isopropyltoluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Styrene	ND	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

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1,2,3-Trichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	nd	nd	nd	nd	nd	nd	220	nd	nd	nd	nd	nd	610
1,3,5-Trimethylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	130
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	490
Total Xylenes	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1500
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	20	nd
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	na	na	na	na	na	na	na	na	na	na	na	na	na
Vinyl Chloride													

Notes:
na = not analyzed
nd = non-detect
**** - failed QA/QC for VOCs, resampled and not include

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Risk Analysis Entire Site
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	PB-01-40 8-9 05/24/01 (µg/kg)	PB-01-40 12-13 05/24/01 (µg/kg)	PB-01-41 8-9 05/24/01 (µg/kg)	PB-01-41 12-13 05/24/01 (µg/kg)	PB-01-42 12-13 05/24/01 (µg/kg)	PB-01-42 14-15 05/24/01 (µg/kg)	PB-01-43 12-13 05/24/01 (µg/kg)	PB-01-44 12-13 05/24/01 (µg/kg)	PB-01-45 12-13 05/24/01 (µg/kg)	PB-01-45 14-15 05/24/01 (µg/kg)	PB-01-46 4-5 05/24/01 (µg/kg)	PB-01-46 10-11 05/24/01 (µg/kg)	PB-01-46 17-18 05/24/01 (µg/kg)
SVOCs													
Acenaphthylene													
Anthracene													
Benzo (a) Anthracene	165	192	183.5	185.5	192	165	185.5	185.5	220	177.5	206.5	194	183.5
Benzo (a) Pyrene	165	192	183.5	185.5	192	165	185.5	185.5	220	177.5	206.5	194	183.5
Benzo (b)Fluoranthene	165	192	183.5	185.5	192	165	185.5	185.5	220	177.5	206.5	194	183.5
Benzo (g,h,i) Perylene													
Benzo (k) Fluoranthene													
Benzoic Acid													
Bis(2-ethylhexyl)phthalate													
Carbazole	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Di-n-butyl phthalate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Indeno (1,2,3-cd) Pyrene	165	192	183.5	185.5	192	165	185.5	185.5	220	177.5	206.5	194	183.5
2-Methylnaphthalene	nd	nd	nd	nd	nd	nd	nd	nd	620	nd	nd	nd	nd
Naphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenol	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VOCs													
Acetone	190	250	210	220	230	190	680	140	nd	290	160	nd	660
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	100	nd	nd	nd	nd
Bromodichloromethane													
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	89	nd	nd	nd	nd	140	130	nd	nd	nd	nd	nd
Butanone 2- (MEK)	110	130	110	110	110	94	230	190	nd	90	nd	nd	180
Carbon Disulfide													
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chlorodibromomethane													
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	56	160	nd	nd	nd	nd	190	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	nd	nd	nd	nd	nd	7.5	9.6	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	18	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	5.5	14	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	14	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	89	12	nd	nd	nd
2-Hexanone													
Isopropylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	71
Methylene chloride	nd	nd	nd	nd	nd	nd	17	19	nd	73	54	nd	nd
n-Butylbenzene	nd	nd	nd	nd	nd	13	12	nd	nd	14	nd	nd	40
n-Propylbenzene	nd	nd	nd	nd	nd	8	nd	nd	nd	5.4	nd	nd	nd
p-Isopropyltoluene	nd	nd	nd	nd	nd	10	12	nd	nd	9.2	nd	nd	nd
sec-Butylbenzene	nd	nd	nd	nd	nd	7	8.4	nd	nd	5.4	nd	nd	nd
Styrene	nd	nd	nd	ND	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	nd	nd	nd	nd	nd	nd	6.8	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

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1,2,3-Trichlorobenzene	21	nd	nd	nd	nd	nd	66	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	19	nd	nd	nd	nd	9.5	47	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	11	16	nd	nd	nd	24	42	nd	160	38	96	nd	92
1,3,5-Trimethylbenzene	nd	nd	nd	nd	nd	10	8.5	nd	nd	10	56	nd	36
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	nd	nd	nd	nd	nd	nd	nd	nd	380	31	114	210	nd
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	nd	nd	24	14	nd	16	17	19	nd	15	nd	nd	nd
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	na	na	na	na	na	na	na	na	na	na	na	na	na
Vinyl Chloride													

Notes:
na = not analyzed
nd = non-detect
*** - failed QA/QC for VOCs, resampled and not include

DRAFT Table
Risk Analysis Entire Site
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	PB-01-46 20-21 05/24/01 (µg/kg)	PB-01-47 4-5 05/24/01 (µg/kg)	PB-01-47 8-9 05/24/01 (µg/kg)	PB-01-47 11-12 05/24/01 (µg/kg)	PB-01-47 15-16 05/24/01 (µg/kg)	PB-01-48 11-12 05/24/01 (µg/kg)	PB-01-48 15-16 05/24/01 (µg/kg)	PB-01-49 3-4 05/25/01 (µg/kg)	PB-01-49 7-8 05/25/01 (µg/kg)	PB-01-49 11-12 05/25/01 (µg/kg)	PB-01-50 3-4 05/25/01 (µg/kg)	PB-01-50 11-12 05/25/01 (µg/kg)	PB-01-50 16-17 05/25/01 (µg/kg)
SVOCs													
Acenaphthylene					na								
Anthracene					na								
Benzo (a) Anthracene	189.5	179.5	192	201	na	203.5	220	235.5	206.5	206.5	165	165	183.5
Benzo (a) Pyrene	189.5	179.5	192	201	na	203.5	220	235.5	206.5	206.5	165	165	183.5
Benzo (b)Fluoranthene	189.5	179.5	192	201	na	203.5	220	235.5	206.5	206.5	165	165	183.5
Benzo (g,h,i) Perylene					na								
Benzo (k) Fluoranthene					na								
Benzoic Acid					na								
Bis(2-ethylhexyl)phthalate					na								
Carbazole	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd
Di-n-butyl phthalate	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd
Indeno (1,2,3-cd) Pyrene	189.5	179.5	192	201	na	203.5	220	235.5	206.5	206.5	165	165	183.5
2-Methylnaphthalene	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd
Phenol	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd
VOCs													
Acetone	nd	370	320	440	300	330	380	340	290	420	nd	330	170
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane													
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)	nd	160	100	nd	93	90	nd	240	130	nd	nd	nd	nd
Carbon Disulfide													
Chlorobenzene	nd	8.2	13	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chlorodibromomethane													
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	44	nd
Chloromethane	nd	160	97	nd	nd	nd	nd	nd	nd	170	nd	nd	nd
2-Chlorotoluene	nd	14	19	nd	16	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	nd	15	20	nd	20	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	nd	14	16	nd	14	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	nd	18	21	nd	19	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	nd	18	26	nd	19	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	16	nd	nd	54	nd	nd	nd	18	nd	nd	nd
Ethylbenzene	nd	13	16	nd	18	nd	nd	nd	14	nd	nd	nd	nd
2-Hexanone													
Isopropylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	nd	83	78	45	110	110	nd	nd	nd	nd	nd	40	nd
n-Butylbenzene	nd	23	30	nd	40	nd	nd	nd	nd	nd	nd	nd	nd
n-Propylbenzene	nd	14	21	nd	22	nd	nd	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene	nd	19	26	nd	29	9.8	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	nd	14	20	nd	23	nd	nd	nd	nd	nd	nd	nd	nd
Styrene	nd	nd	15	nd	12	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	nd	9.8	6.4	nd	13	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	nd	30	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

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1,2,3-Trichlorobenzene	nd	40	40	93	27	nd	83	66	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	nd	38	43	70	30	nd	63	50	nd	nd	260	nd	nd
1,2,4-Trimethylbenzene	290	21	26	nd	49	22	nd	nd	42	nd	nd	nd	nd
1,3,5-Trimethylbenzene	nd	14	22	nd	25	8	nd	nd	nd	nd	nd	nd	nd
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	nd	nd	nd	nd	39	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	nd	32	24	40	36	18	46	16	nd	nd	nd	nd	nd
Trichlorofluoromenthane	nd	40	58	nd	57	33	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	na	na	na	na	na	na	na	na	na	na	na	na	na
Vinyl Chloride													

Notes:
na = not analyzed
nd = non-detect
*** - failed QA/QC for VOCs, resampled and not include

DRAFT Table
Risk Analysis Entire Site
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	PB-01-50 20-21 05/25/01 (µg/kg)	Max Concentration * Detected MAX	RATIOS CAR	RATIOS NON CAR
SVOCs				
Acenaphthylene		162	na	6.81E-05
Anthracene		380	na	3.14E-05
Benzo (a) Anthracene	206.5	193	4.17E-02	na
Benzo (a) Pyrene	206.5	192.5	4.14E-01	na
Benzo (b)Fluoranthene	206.5	194.5	4.23E-02	na
Benzo (g,h,i) Perylene		850	na	5.67E-04
Benzo (k) Fluoranthene		980	2.11E-02	na
Benzoic Acid		2500	na	1.50E-05
Bis(2-ethylhexyl)phthalate		13000	7.03E-02	2.04E-02
Carbazole	nd	420	2.61E-03	na
Chrysene	nd	1200	2.63E-03	na
Di-n-butyl phthalate	nd	940	na	2.59E-02
Fluoranthene	nd	3400	na	2.06E-03
Indeno (1,2,3-cd) Pyrene	206.5	185.8	4.00E-02	na
2-Methylnaphthalene	nd	2200	na	4.03E-02
Naphthalene	nd	8600	na	1.58E-01
Phenanthrene	nd	2500	na	2.07E-04
Phenol	nd	880	na	5.79E-05
Pyrene	nd	2300	na	1.53E-03
VOCs				
Acetone	230	840	na	5.82E-04
Benzene	nd	100	1.46E-02	1.46E-02
Bromodichloromethane		31	4.67E-04	3.07E-05
Bromoform	nd	16	3.73E-05	1.91E-05
Bromomethane	nd	140	na	3.71E-02
Butanone 2- (MEK)	nd	240	na	3.64E-05
Carbon Disulfide		17.3	na	4.94E-05
Chlorobenzene	nd	22	na	4.38E-04
Chlorodibromomethane		10.8	2.67E-04	1.29E-05
Chloroform	nd	145	6.02E-02	3.49E-03
Chloromethane	nd	190	na	5.19E-03
2-Chlorotoluene	nd	41	na	3.76E-05
4-Chlorotoluene	nd	46	na	na
1,2-Dichlorobenzene	nd	37	na	4.29E-05
1,3-Dichlorobenzene	nd	45	na	1.10E-04
1,4-Dichlorobenzene	nd	51	1.68E-03	1.51E-05
1,2-Dichloroethane	nd	15	5.32E-04	1.40E-03
1,1-Dichloroethene	nd	54	1.04E-01	2.74E-03
Ethylbenzene	nd	1400	na	1.02E-03
2-Hexanone		53	na	7.24E-05
Isopropylbenzene	nd	210	na	1.32E-04
Methyl 4,-2-Propanone (MIBK)	nd	160	na	2.20E-04
Methylene chloride	54	700	na	4.29E-04
n-Butylbenzene	nd	130	na	2.39E-04
n-Propylbenzene	nd	230	na	4.22E-04
p-Isopropyltoluene	nd	64	na	1.12E-04
sec-Butylbenzene	nd	33	na	6.06E-05
Styrene	nd	31	na	7.77E-06
tert-Butylbenzene	nd	22	na	4.04E-05
1,1,2,2-Tetrachloroethane	nd	30	8.43E-03	na

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Risk Analysis Entire Site
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1,2,3-Trichlorobenzene	nd	93	na	1.14E-02
1,2,4-Trichlorobenzene	nd	260	na	2.48E-03
1,2,4-Trimethylbenzene	nd	830	na	3.72E-02
1,3,5-Trimethylbenzene	nd	380	na	1.96E-02
Toluene	nd	490	na	8.54E-04
Total Xylenes	nd	1500	na	1.02E-03
trans-1,2-Dichloroethene	nd	21	na	3.38E-04
Trichloroethene	nd	74	2.74E-03	3.30E-03
Trichlorofluoromenthane	nd	58	na	1.62E-04
Vinyl Acetate	na	23.6	na	5.57E-05
Vinyl Chloride		18	1.41E-02	5.00E-04
			0.84	**0.39**

Notes:
na = not analyzed
nd = non-detect
*** - failed QA/QC for VOCs, resampled and not include

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 10/30/03 4:37PM
Subject: Re: Questions

Kara,

I have provided answers to your questions below. Please give me call if you would like additional clarification.

Sincerely,
Mike

>>> "Kara Reynolds" <Kara.Reynolds@epa.state.oh.us> 10/30/03 02:11PM >>>
Michael,

I have a few questions concerning the information that you sent to us.

1. Is it correct to assume that PB-01 and PB-1; PB-02 and PB-2; PB-03 and PB-3; etc. are the same thing? They are labeled as one on the figure and the table lists them as the other.

Yes, your assumption is correct.

PB-1 through PB-22 were installed in 1999. PB-1 through PB-9 are presented on Figure 6 as PB-01 through PB-09 and represent the same sample locations. PB-01 and PB-15 were resampled in 2001. I think we will drop the extra "0" for the final figure.

2. After looking over the closure plan and certification, the following samples are not listed on the Fate of Sample table. I was wondering if you could give me the information concerning these samples as well.

Some borings were terminated and samples were not submitted for laboratory analysis when PID readings were detected. During that phase of the project we were trying to find the extent of the contamination. This was the case for PB-01-26, 30 and 33. PB-01-51 was held for analysis in case PB-01-48 was contaminated. PB-01-48 was not contaminated and therefore, PB-01-51 was not needed. Below is specific information regarding each sample:

PB-01-26 Was never submitted for analysis.
PB-01-30 Was never submitted for analysis.
PB-01-33 Was never submitted for analysis.
PB-01-33 (11'-16') Represents a water sample, results are presented in the Closure Plan.
PB-01-34 (11.5'-16.5') Represents a water sample, results are presented in the Closure Plan.
PB-01-35 (11'-16') Represents a water sample, results are presented in the Closure Plan.
PB-01-45 (11'-16') Represents a water sample, results are presented in the Closure Plan.

PB-01-46 (11'-16') Represents a water sample, results are presented in the Closure Plan.
PB-01-51 Was never submitted for analysis.
PB-02-28 PB-01-28 was resampled in 2002 for waste characterization in accordance with Section 14.4 of the closure plan. Hand auger refusal during the May 2002 waste characterization sampling event led to the collection of PB-02-28 with a Geoprobe during the soil and groundwater investigation in late summer 2002.

Thank You,
Kara

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: <osman_aly@campbellsoup.com>, <o.aly@worldnet.att.net>

GeoTrans, Inc.
A TETRA TECH COMPANY

710 Avis Drive, Ann Arbor, MI 48108 • (734) 213-2204 • (734) 213-5008 (FAX)

LETTER OF TRANSMITTAL

RECEIVED
OCT 29 2003

Date: October 28, 2003

To: Kara Reynolds
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402

Transmitted By:

First Class Mail	Federal Express	Courier
Registered Mail	UPS	Other_____

Job #: 4603.003.06

Re: Campbell Soup Napoleon RCRA Closure

We are enclosing: Tables and Figures

Remarks:

Kara,

Please find enclosed the revised Figure 6 and an additional Figure 7. Figure 6 includes the final excavation and the location of the samples collected at the site. Per your request Figure 7 presents the pre-excavation topography of the site. Also, enclosed please find two tables: one that presents the fate of every sample collected at the site, and a second that presents the two subsets recently described in our draft October 21, 2003 letter and our October 28, 2003 conference call. Please note, when combined the two subsets represent all of the samples that remain on the site.

Please do not hesitate to give me a call at 734.213.5024 should you have any questions regarding the content of this packet.

copy: Erik Hagen, Ohio EPA
Dr. Osman Aly, Campbell Soup, L.L.C.
Amy Bayes, GeoTrans, Inc.

By: Michael Kovacich

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Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

Sample ID	FL-2	FL-8	FL-10	FL-13	FL-15	FL-18	FL-20
Depth (feet bsg*)	--	--	--	--	--	--	--
Elevation (feet amsl**)	681.9	681.0	680.4	676.2	680.8	676.4	679.1
Collection Date	02/28/03	03/12/03	02/20/03	03/27/03	02/26/03	02/26/03	02/28/03
Purpose	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation
Group	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Sample ID	FL-22	FL-29	FL-35	SW-36	SW-38	SW-38 (2)	SW-40
Depth (feet*)	--	--	--	--	--	--	--
Elevation (feet amsl**)	679.8	676.8	676.9	682	681	678	684
Collection Date	02/10/03	02/27/03	12/23/02	12/23/02	12/17/02	03/12/03	02/10/03
Purpose	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation
Group	Subset 2	Subset 2	Subset 2	Subset 2	NA	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remediated	Remains Onsite	Remains Onsite

Notes:
* bsg = below native surface grade
** amsl = above mean sea level
-- = depth does not apply
NA - not applicable, not used in risk assesment
*** - not included in risk analysis, refer to June 9, 2003 correspondence

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Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

Sample ID	SW-41	SW-41 (2)	SW-46	SW-46 (2)	SW-46 (3)	SW-46 (4)	SW-46-6'
Depth (feet bsg*)	--	--	--	--	--	--	--
Elevation (feet amsl**)	684	683	683.5	679	680	681	682
Collection Date	02/10/03	03/17/03	02/28/03	03/27/03	04/03/03	04/10/03	04/03/03
Purpose	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation
Group	NA	Subset 2	NA	Subset 2	Subset 2	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite***	Remains Onsite	Remediated	Remediated	Remediated	Remains Onsite	Remains Onsite

Sample ID	SW-49	SW-53	SW-54	VR-02-01	VR-02-01 (2)	VR-02-01 (2) Split	VR-02-02
Depth (feet*)	--	--	--	--	--	--	--
Elevation (feet amsl**)	680	679	684	--	--	--	--
Collection Date	02/28/03	02/14/03	01/10/03	12/12/02	12/23/02	12/23/03	12/17/02
Purpose	Confirmation of Remediation	Confirmation of Remediation	Confirmation of Remediation	Treated Soil Characterization	Verify results of VR-02-01	Verify results of VR-02-01	Treated Soil Characterization
Group	Subset 2	Subset 2	Subset 2	Subset 1	Subset 1	Subset 1	Subset 1
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	No	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Notes:
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Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

Sample ID	VR-02-03	VR-03-04	VR-03-04 (2)	VR-03-05	VR-03-06	VR-03-07
Depth (feet bsg*)	--	--	--	--	--	--
Elevation (feet amsl**)	--	--	--	--	--	--
Collection Date	12/31/02	01/10/03	01/20/03	01/20/03	01/20/03	01/30/03
Purpose	Treated Soil Characterization	Treated Soil Characterization	Verify results of VR-03-04	Treated Soil Characterization	Treated Soil Characterization	Treated Soil Characterization
Group	Subset 1	NA	NA	NA	Subset 1	NA
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Disposed of Offsite	Disposed of Offsite	Disposed of Offsite	Remains Onsite	Disposed of Offsite

Sample ID	VR-03-08	VR-03-09	VR-03-09 (unscreened)	VR-03-10	VR-03-11	VR-03-12
Depth (feet*)	--	--	--	--	--	--
Elevation (feet amsl**)	--	--	--	--	--	--
Collection Date	02/10/03	02/10/03	02/10/03	02/14/03	02/14/03	02/18/03
Purpose	Treated Soil Characterization	Treated Soil Characterization	Verify sample integrity of samples field screened/sieved	Treated Soil Characterization	Treated Soil Characterization	Treated Soil Characterization
Group	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1
VOCs Anayzed	Yes	Yes	No	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Notes:
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Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

Sample ID	VR-03-13	VR-03-14	CS-02-01	CS-02-02	CS-02-03	CS-02-04	CS-02-05
Depth (feet bsg*)	--	--	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
Elevation (feet amsl**)	--	--	--	--	--	--	--
Collection Date	02/18/03	02/20/03	12/06/02	12/06/02	12/06/02	12/06/02	12/11/02
Purpose	Treated Soil Characterization	Treated Soil Characterization	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization
Group	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Sample ID	CS-02-06	CS-02-07	CS-02-08	CS-02-09	CS-02-10	CS-02-11	CS-02-12
Depth (feet*)	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
Elevation (feet amsl**)	--	--	--	--	--	--	--
Collection Date	12/11/02	12/11/02	12/11/02	12/11/02	12/10/02	12/10/02	12/10/02
Purpose	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization
Group	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Notes:
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Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

Sample ID	CS-02-13	CS-02-14	CS-02-15	CS-02-16	CS-02-17	IS-02-01	IS-02-02
Depth (feet bsg*)	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
Elevation (feet amsl**)	--	--	--	--	--	--	--
Collection Date	12/10/02	12/10/02	12/10/02	12/10/02	12/10/02	12/18/02	12/18/02
Purpose	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization	Clean Soil Characterization	Intermediate Soil Characterization	Intermediate Soil Characterization
Group	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Sample ID	IS-02-02 (2)	IS-02-03	Test Pit #1	Test Pit #2	Test Pit #3	Test Pit #4	PB-01
Depth (feet*)	1-1.5	1-1.5	--	--	--	--	5-6
Elevation (feet amsl**)	--	--	676.6	677.5	675.3	675.7	682.1
Collection Date	3/27/03	12/18/02	3/27/03	3/27/03	3/27/03	3/27/03	5/25/01
Purpose	Repeat due to failed QA/QC of IS-02-02	Intermediate Soil Characterization	Deep Vertical Delineation	Deep Vertical Delineation	Deep Vertical Delineation	Deep Vertical Delineation	Investigative Boring
Group	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1	Subset 1	NA
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	No	Yes	No	No	No	No	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remediated

Notes:
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Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

Sample ID	PB-01	PB-01	PB-1	PB-01	PB-2	PB-3	PB-4	PB-5	PB-6
Depth (feet bsg*)	7-8	9.5-10	11-12	15-16	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10
Elevation (feet amsl**)	680.1	677.85	676.1	672.1	677.45	677.15	677.55	677.75	677.05
Collection Date	5/25/01	12/2/99	5/25/01	5/25/01	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	No	Yes	Yes	No	No	No	No	No
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Sample ID	PB-7	PB-8	PB-9	PB-10	PB-11	PB-12	PB-13	PB-14	PB-15
Depth (feet*)	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	~~9.5-10~~ (6-7
Elevation (feet amsl**)	676.95	676.95	677.15	677.55	678.25	676.75	676.65	676.95	680.5
Collection Date	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99	12/2/99	12/3/99
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	NA
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	No	No	No	No	No	No	No	No	No
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remediated

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Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

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Sample ID	PB-15	PB-15	PB-15	PB-16	PB-17	PB-18	PB-19	PB-20	PB-20
Depth (feet bsg*)	9.5-10	12-13	15-16	9.5-10	9.5-10	9.5-10	9.5-10	6-7	9.5-10
Elevation (feet amsl**)	677.25	674.5	671.5	676.65	677.15	678.15	678.25	683.3	680.05
Collection Date	12/2/99	5/25/01	5/25/01	12/2/99	12/3/99	12/3/99	12/3/99	12/3/99	12/3/99
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	NA	NA
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remediated	Remediated

Sample ID	PB-21	PB-21	PB-22	PB-01-23	PB-01-23	PB-01-23	PB-01-24	PB-01-25	PB-01-25
Depth (feet*)	8-9	9.5-10	7-8	4-5	8-9	12-13	4-5	12-13	14-15
Elevation (feet amsl**)	680.9	679.65	680.3	682.9	678.9	674.9	682.7	675.2	673.2
Collection Date	12/3/99	12/3/99	12/3/99	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/25/01
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	NA	NA	Subset 2	NA	Subset 2	Subset 2	NA	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remediated	Remediated	Remains Onsite	Remediated	Remains Onsite	Remains Onsite	Remediated	Remains Onsite	Remains Onsite

Notes:
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Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

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Sample ID	PB-01-25	PB-01-25	PB-01-27	PB-01-27	PB-01-27	PB-01-27	PB-01-28	PB-01-28	PB-01-28
Depth (feet bsg*)	15-16	18-19	4-5	7-8	13-14	15-16	4-5	7-8	12-13
Elevation (feet amsl**)	672.2	669.2	684.2	681.2	675.2	673.2	682	679	674
Collection Date	5/22/01	5/25/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	Subset 2	Subset 2	NA	NA	Subset 2	Subset 2	NA	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remediated	Remediated	Remains Onsite	Remains Onsite	Remediated	Remains Onsite	Remains Onsite

Sample ID	PB-01-28	PB-01-29	PB-01-29	PB-01-29	PB-01-31	PB-01-31	PB-01-31	PB-01-32	PB-01-32
Depth (feet*)	15-16	6-7	12-13	14-15	4-5	8-9	10-11	6-7	8-9
Elevation (feet amsl**)	671	680.3	674.3	672.3	678.9	674.9	672.9	681.6	679.6
Collection Date	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/22/01	5/23/01	5/23/01
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	Subset 2	NA	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	NA	NA
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remediated	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remediated	Remediated

Notes:
* bsg = below native surface grade
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Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

DRAFT

Sample ID	PB-01-32	PB-01-32	PB-01-34	PB-01-34	PB-01-34	PB-01-35	PB-01-35	PB-01-36	PB-01-36
Depth (feet bsg*)	12-13	14-15	8-9	21-22	25-26	16-17	20-21	4-5	8-9
Elevation (feet amsl**)	675.6	673.6	680.8	667.8	663.8	671.7	667.7	678	674
Collection Date	5/23/01	5/23/01	5/23/01	5/23/01	5/23/01	5/25/01	5/25/01	5/23/01	5/23/01
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	Subset 2	Subset 2	NA	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remediated	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Sample ID	PB-01-36	PB-01-37	PB-01-37	PB-01-37	PB-01-38	PB-01-38	PB-01-38	PB-01-39	PB-01-39
Depth (feet*)	12-13	4-5	8-9	12-13	7-8	11-12	13-14	4-5	7-8
Elevation (feet amsl**)	670	682.6	678.6	674.6	676.8	672.8	670.8	680.9	677.9
Collection Date	5/23/01	5/23/01	5/23/01	5/23/01	5/23/01	5/23/01	5/23/01	5/23/01	5/23/01
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Notes:
* bsg = below native surface grade
** amsl = above mean sea level
-- = depth does not apply
NA - not applicable, not used in risk assesmen
*** - not included in risk anelysis, refer to June

Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

DRAFT

Sample ID	PB-01-39	PB-01-40	PB-01-40	PB-01-40	PB-01-41	PB-01-41	PB-01-41	PB-01-42	PB-01-42
Depth (feet bsg*)	12-13	4-5	8-9	12-13	4-5	8-9	12-13	4-5	8-9
Elevation (feet amsl**)	672.9	677.9	673.9	669.9	682.7	678.7	674.7	683	679
Collection Date	5/23/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	Subset 2	Subset 2	Subset 2	Subset 2	NA	Subset 2	Subset 2	NA	NA
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remediated	Remains Onsite	Remains Onsite	Remediated	Remediated

Sample ID	PB-01-42	PB-01-42	PB-01-43	PB-01-43	PB-01-43	PB-01-44	PB-01-44	PB-01-44	PB-01-45
Depth (feet*)	12-13	14-15	4-5	8-9	12-13	4-5	8-9	12-13	6-7
Elevation (feet amsl**)	675	673	683.2	679.2	675.2	681	677	673	683.2
Collection Date	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	Subset 2	Subset 2	NA	NA	Subset 2	NA	NA	Subset 2	NA
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remediated	Remediated	Remains Onsite	Remediated	Remediated	Remains Onsite	Remediated

Notes:
* bsg = below native surface grade
** amsl = above mean sea level
-- = depth does not apply
NA - not applicable, not used in risk assesmen
*** - not included in risk analysis, refer to June

Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

DRAFT

Sample ID	PB-01-45	PB-01-45	PB-01-45	PB-01-46	PB-01-46	PB-01-46	PB-01-46	PB-01-47	PB-01-47
Depth (feet bsg*)	10.5-11	12-13	14-15	4-5	10-11	17-18	20-21	4-5	8-9
Elevation (feet amsl**)	678.7	677.2	675.2	684.1	678.1	671.1	668.1	685.8	681.8
Collection Date	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	NA	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remediated	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Sample ID	PB-01-47	PB-01-47	PB-01-48	PB-01-48	PB-01-48	PB-01-49	PB-01-49	PB-01-49	PB-01-50
Depth (feet*)	11-12	15-16	5-6	11-12	15-16	3-4	7-8	11-12	3-4
Elevation (feet amsl**)	677.8	674.8	681	675	671	677.6	673.6	669.6	684.3
Collection Date	5/24/01	5/24/01	5/24/01	5/24/01	5/24/01	5/25/01	5/25/01	5/25/01	5/25/01
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring	Investigative Boring
Group	Subset 2	Subset 2	NA	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fate of Sample	Remains Onsite	Remains Onsite	Remediated	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Notes:
* bsg = below native surface grade
** amsl = above mean sea level
-- = depth does not apply
NA - not applicable, not used in risk assesmen
*** - not included in risk analysis, refer to June

Table X
Sample Fate
Campbell Soup Supply Company
Napoleon, Ohio

DRAFT

Sample ID	PB-01-50	PB-01-50	PB-01-50	PB-02-52	PB-02-53	PB-02-54	PB-02-54	PB-02-55
Depth (feet bsg*)	11-12	16-17	20-21	4-5	4-5	4-5	19.5-20	4-5
Elevation (feet amsl**)	676.3	671.3	667.3	667.5	674.8	669.5	654.25	669.5
Collection Date	5/25/01	5/25/01	5/25/01	10/1/02	10/1/02	10/1/02	10/1/02	10/1/02
Purpose	Investigative Boring	Investigative Boring	Investigative Boring	Horizontal Delineation	Horizontal Delineation	Horizontal Delineation	Horizontal Delineation	Horizontal Delineation
Group	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	Yes	Yes	Yes	No	No	No	No	No
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Sample ID	PB-02-56	PB-02-56	PB-02-57	PB-02-58	MW-1	MW-2	MW-3
Depth (feet*)	4-5	19.5-20	4-5	4-5	4-5	4-5	4-5
Elevation (feet amsl**)	667.5	652.25	667.1	667.4	668.3	668.2	675.2
Collection Date	10/1/02	10/1/02	10/1/02	10/1/02	10/1/02	10/1/02	10/1/02
Purpose	Horizontal Delineation	Horizontal Delineation	Horizontal Delineation	Horizontal Delineation	Horizontal Delineation	Horizontal Delineation	Horizontal Delineation
Group	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2	Subset 2
VOCs Anayzed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SVOCs Analyzed	No	No	No	No	No	No	No
Fate of Sample	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite	Remains Onsite

Notes:
* bsg = below native surface grade
** amsl = above mean sea level
-- = depth does not apply
NA - not applicable, not used in risk assesmen
*** - not included in risk analysis, refer to June

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Table
Risk Analysis for Subset 1*
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	Sample ID	VR-02-01	VR-02-01 (2)	VR-02-01 (2) split	VR-02-02	VR-02-03	VR-03-06	VR-03-08	VR-03-09	VR-03-09 unscreened	VR-03-10	VR-03-11	VR-03-12	VR-03-13	VR-03-14	CS-02-01	CS-02-02
	Sample Depth (feet bsg*)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Sample Date	12/12/02 (µg/kg)	12/23/02 (µg/kg)	12/23/02 (µg/kg)	12/17/02 (µg/kg)	12/31/02 (µg/kg)	01/20/03 (µg/kg)	02/10/03 (µg/kg)	02/10/03 (µg/kg)	02/10/03 (µg/kg)	02/14/03 (µg/kg)	02/14/03 (µg/kg)	02/18/03 (µg/kg)	02/18/03 (µg/kg)	02/20/03 (µg/kg)	12/06/02 (µg/kg)	12/06/02 (µg/kg)
SVOCs																	
Acenaphthylene		nd	nd	nd	162	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Anthracene		nd	nd	nd	150	nd	nd	nd	nd	nd	360	380	nd	360	nd	nd	nd
Benzo (a) Anthracene		nd	nd	330	180	610	810	420	780	nd	750	910	460	830	440	nd	170
Benzo (a) Pyrene		nd	nd	nd	nd	480	350	350	920	nd	630	740	370	660	370	nd	nd
Benzo (b)Fluoranthene		570	nd	350	193	590	850	510	900	400	850	1100	550	1300	540	nd	nd
Benzo (g,h,i) Perylene		nd	nd	390	180	650	780	400	660	330	640	700	370	840	850	nd	nd
Benzo (k) Fluoranthene		nd	nd	nd	nd	550	670	nd	670	nd	780	980	440	710	480	nd	nd
Benzoic Acid		nd	nd	nd	nd	nd	nd	nd	nd	nd	1300	2500	nd	nd	nd	nd	nd
Bis(2-ethylhexyl)phthalate		nd	nd	nd	220	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene		370	nd	400	193	810	1200	600	1000	470	970	1200	590	1200	620	nd	nd
Di-n-butyl phthalate		nd	nd	nd	160	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene		870	nd	1100	850	1700	1900	1100	1200	1100	3100	3400	1600	3200	1800	nd	nd
Indeno (1,2,3-cd) Pyrene		165	165	165	165	370	550	165	510	165	460	540	165	640	450	165	165
2-Methylnaphthalene		nd	nd	nd	570	nd	nd	nd	nd	nd	340	380	nd	nd	nd	nd	nd
Naphthalene		530	14.3	980	nd	420	590	480	400	490	1600	1300	500	1100	1000	nd	nd
Phenanthrene		760	nd	1200	nd	1200	1600	940	770	800	2400	2500	1100	2400	1600	nd	160
Phenol		nd	nd		nd	nd	nd	nd	nd	480	540	640	nd	nd	880	nd	nd
Pyrene		910	nd	2300	nd	150	1700	740	970	560	1900	2100	750	1500	1400	nd	nd
VOCs																	
Acetone		772	141	na	392	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	398
Benzene		4	9	na	13	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane		nd	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)		99.3	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	5	31
Carbon Disulfide		nd	8	na	17	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd
Chlorodibromomethane		nd	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd
Chloroform		nd	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	17	145
Ethylbenzene		4.3	nd	na	23	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd
2-Hexanone		35.7	6	na	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	17
Methyl 4,-2-Propanone (MIBK)		35.9	nd	na	160	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	7	nd
Toluene		5.1	11	na	17	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene		nd	4	na	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd
Total xylenes		nd	32	na	91	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate		nd	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd
Vinyl Chloride		nd	nd	na	18	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd

Notes:
* - Subset 1 includes all Verification of Remediation samples and Stockpile samples that remain onsite
** bsg = below surface grade
*** - failed QA/QC for VOCs, resampled and not included in risk assesment
na - not analyzed
nd - not detected

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Table
Risk Analysis for Subset 1*
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	CS-02-03 -- 12/06/02 (µg/kg)	CS-02-04 -- 12/06/02 (µg/kg)	CS-02-05 -- 12/11/02 (µg/kg)	CS-02-06 -- 12/11/02 (µg/kg)	CS-02-07 -- 12/11/02 (µg/kg)	CS-02-08 -- 12/11/02 (µg/kg)	CS-02-09 -- 12/11/02 (µg/kg)	CS-02-10 -- 12/10/02 (µg/kg)	CS-02-11 -- 12/10/02 (µg/kg)	CS-02-12 -- 12/10/02 (µg/kg)	CS-02-13 -- 12/10/02 (µg/kg)	CS-02-14 -- 12/10/02 (µg/kg)	CS-02-15 -- 12/10/02 (µg/kg)	CS-02-16 -- 12/10/02 (µg/kg)	CS-02-17 -- 12/10/02 (µg/kg)	IS-02-01 -- 12/18/02 (µg/kg)	IS-02-02 -- 12/18/03 (µg/kg)	IS-02-02 (2) -- 03/27/03 (µg/kg)
SVOCs																		
Acenaphthylene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
Benzo (a) Anthracene	210	nd	nd	nd	nd	nd	1,160	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
Benzo (a) Pyrene	nd	nd	nd	nd	nd	nd	1,080	nd	nd	nd	nd	180	nd	nd	nd	nd	nd	na
Benzo (b)Fluoranthene	450	nd	nd	nd	nd	370	1,940	nd	170	nd	nd	370	nd	nd	nd	nd	nd	na
Benzo (g,h,i) Perylene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
Benzo (k) Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
Benzoic Acid	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
Bis(2-ethylhexyl)phthalate	nd	nd	nd	nd	nd	nd	13,000	nd	nd	nd	nd	nd	nd	nd	nd	nd	672	na
Chrysene	nd	nd	nd	nd	nd	nd	1,170	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
Di-n-butyl phthalate	nd	nd	nd	nd	nd	nd	350	nd	nd	nd	nd	nd	nd	nd	nd	nd	280	na
Fluoranthene	630	nd	nd	nd	190	350	nd	nd	nd	270	190	nd	nd	nd	nd	nd	182	na
Indeno (1,2,3-cd) Pyrene	165	165	165	165	165	165	590	165	165	165	165	165	165	330	165	165	165	na
2-Methylnaphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	150	1260	na
Naphthalene	nd	nd	nd	nd	nd	nd	480	nd	nd	nd	nd	nd	nd	nd	nd	750	7600	na
Phenanthrene	460	nd	nd	nd	nd	nd	1,440	nd	nd	nd	nd	290	nd	nd	nd	nd	193	na
Phenol	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na
Pyrene	510	nd	nd	nd	180	330	2,040	nd	nd	260	190	nd	nd	nd	nd	nd	nd	na
VOCs																		
Acetone	54	54	nd	88	38	53	77	27	31	26	43	77	57	nd	58	116	***	nd
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd
Bromodichloromethane	7	27	5	15	nd	nd	6	4	3	nd	nd	nd	nd	nd	nd	nd	***	nd
Butanone 2- (MEK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd
Carbon Disulfide	4	4	nd	nd	nd	4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd
Chlorodibromomethane	nd	11	nd	5	nd	3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd
Chloroform	65	46	57	64	22	9	37	18	6	4	3	4	7	4	4	13	***	nd
Ethylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	132	***	nd
2-Hexanone	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	53	***	nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	55	***	nd
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	12	nd	nd	***	nd
1,3,5-Trimethylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd
Total xylenes	nd	nd	nd	nd	nd	nd	4	nd	nd	6	3	4	4	9	3	nd	***	nd
Vinyl Acetate	nd	nd	7	10	6	6	12	7	9	8	6	9	10	8	6	nd	***	nd
Vinyl Chloride	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	***	nd

Notes:
* - Subset 1 includes all Verification of Remediation samp
** bsg = below surface grade
*** - failed QA/QC for VOCs, resampled and not included
na - not analyzed
nd - not detected

Table
Risk Analysis for Subset 1*
Campbell Soup Supply Company
Napoleon, Ohio

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Chemical of Concern Identified at the Site	IS-02-03 -- 12/18/02 (µg/kg)	Maximum Concentration Detected in Subset 1 MAX	Minimum Concentration Detected in Subset 1 MIN	Number of Detections in 35 Samples
SVOCs				
Acenaphthylene	nd	162	162	1
Anthracene	nd	380	150	4
Benzo (a) Anthracene	nd	1160	170	14
Benzo (a) Pyrene	nd	1080	180	11
Benzo (b)Fluoranthene	nd	1940	170	18
Benzo (g,h,i) Perylene	nd	850	180	12
Benzo (k) Fluoranthene	nd	980	440	8
Benzoic Acid	nd	2500	1300	2
Bis(2-ethylhexyl)phthalate	187	13000	187	4
Chrysene	nd	1200	193	14
Di-n-butyl phthalate	nd	350	160	3
Fluoranthene	nd	3400	182	19
Indeno (1,2,3-cd) Pyrene	165	640	165	34
2-Methylnaphthalene	nd	1260	150	5
Naphthalene	622	7600	14	17
Phenanthrene	nd	2500	160	17
Phenol	nd	880	480	4
Pyrene	nd	2300	150	18
VOCs				
Acetone	108	772	26	19
Benzene	4	13	4	4
Bromodichloromethane	nd	31	3	9
Butanone 2- (MEK)	13	99	13	2
Carbon Disulfide	nd	17	4	5
Chlorodibromomethane	nd	11	3	3
Chloroform	nd	145	3	18
Ethylbenzene	29	132	4	4
2-Hexanone	21	53	6	5
Methyl 4,-2-Propanone (MIBK)	22	160	7	5
Toluene	8	17	5	5
1,3,5-Trimethylbenzene	nd	4	4	1
Total xylenes	162	162	3	10
Vinyl Acetate	24	24	6	14
Vinyl Chloride	nd	18	18	1

Notes:
* - Subset 1 includes all Verification of Remediation samp
** bsg = below surface grade
*** - failed QA/QC for VOCs, resampled and not included
na - not analyzed
nd - not detected

DRAFT

Table
Risk Analysis for Subset 2*
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	Sample ID	FL-2	FL-8	FL-10	FL-13	FL-15	FL-18	FL-20	FL-22	FL-29	FL-35	SW-36	SW-38 (2)	SW-40	SW-41 (2)	SW-46 (4)	SW-46-6'
	Sample Depth (feet bsg**)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Sample Date	02/28/03	03/12/03	02/20/03	03/27/03	02/26/03	02/26/03	02/28/03	02/10/03	02/27/03	12/23/02	12/23/02	03/12/03	02/10/03	03/17/03	04/10/03	04/03/03
		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
SVOCs																	
Benzo (a) Anthracene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	330	nd	nd	nd
Benzo (a) Pyrene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	380	nd	nd	nd
Carbazole		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	510	nd	nd	nd
Di-n-butyl phthalate		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	610	nd	nd	nd
2-Methylnaphthalene		nd	nd	nd	nd	460	nd	nd	nd	nd	nd	nd	510	2,200	nd	nd	nd
Naphthalene		450	450	nd	nd	3200	nd	nd	nd	560	nd	nd	8,600	1,600	nd	nd	4,900
Phenanthrene		nd	nd	nd	nd	nd	nd	nd	740	nd	nd	nd	nd	1,200	nd	nd	nd
Phenol		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene		nd	nd	nd	nd	nd	nd	nd	570	nd	nd	nd	nd	610	nd	nd	nd
VOCs																	
Acetone		nd	nd	nd	nd	nd	nd	nd	nd	nd	40	47	nd	nd	nd	nd	nd
Benzene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromoform		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	16	nd
Bromomethane		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene		nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	na	nd	nd	nd
4-Chlorotoluene		nd	nd	nd	nd	nd	nd	nd	na	nd	nd	na	nd	na	nd	nd	nd
1,2-Dichlorobenzene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene		nd	nd	nd	nd	19	nd	nd	nd	nd	4	3	270	nd	nd	19	170
Isopropylbenzene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	24	nd	nd	nd	nd
Methyl 4,-2-Propanone (MIBK)		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	91	nd	nd	nd	nd
n-Propylbenzene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	110	nd	nd	nd	61
p-Isopropyltoluene		nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	29	na	nd	nd	nd
sec-Butylbenzene		nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	na	nd	nd	nd
Styrene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene		nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	na	nd	nd	nd
1,1,2,2-Tetrachloroethane		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene		nd	nd	nd	nd	78	nd	nd	nd	17	nd	nd	790	nd	nd	nd	nd
1,3,5-Trimethylbenzene		nd	nd	nd	nd	120	nd	nd	nd	nd	nd	nd	210	nd	nd	28	220
Toluene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	4	nd	nd	nd	20	nd
Total Xylenes		nd	nd	nd	nd	120	nd	nd	nd	nd	9	9	920	nd	nd	nd	nd
trans-1,2-Dichloroethene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromenthane		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	20	nd	nd	nd	nd	nd

Notes:
* - Subset 2 includes all Confirmation of Remediation Samples and Borings that remain onsite.
na - not analyzed
nd - not detected
** bsg = below surface grade

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Table
Risk Analysis for Subset 2*
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	SW-49	SW-53	SW-54	PB-1	PB-2	PB-3	PB-4	PB-5	PB-6	PB-7	PB-8	PB-9	PB-10	PB-11	PB-12	PB-13	PB-14
	--	--	--	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10	9.5-10
	02/28/03	02/14/03	01/10/03	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99	12/02/99
	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
SVOCs																	
Benzo (a) Anthracene	nd	350	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Benzo (a) Pyrene	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Carbazole	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Chrysene	nd	370	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Di-n-butyl phthalate	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Fluoranthene	nd	820	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
2-Methylnaphthalene	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Naphthalene	2,500	920	470	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	nd	560	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Phenol	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Pyrene	nd	560	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
VOCs																	
Acetone	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	63.5	nd	nd
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	62.6	nd	nd	nd
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
4-Chlorotoluene	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	nd	nd	nd	4.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	2.4	nd	nd	nd	2	nd	nd	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Methyl 4, 2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
n-Propylbenzene	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
p-Isopropyltoluene	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
sec-Butylbenzene	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Styrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
1,2,4-Trichlorobenzene	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
1,2,4-Trimethylbenzene	13	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
1,3,5-Trimethylbenzene	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Toluene	nd	nd	nd	2.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	nd	nd	nd	11.4	nd	2.8	nd	2.2	nd	nd	nd	4.8	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

Notes:
* - Subset 2 includes all Confirmation of Remediation Samples and Borin
na - not analyzed
nd - not detected
** bsg = below surface grade

DRAFT

Table
Risk Analysis for Subset 2*
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	PB-15 9.5-10 12/03/99 (µg/kg)	PB-16 9.5-10 12/02/99 (µg/kg)	PB-17 9.5-10 12/03/99 (µg/kg)	PB-18 9.5-10 12/03/99 (µg/kg)	PB-19 9.5-10 12/03/99 (µg/kg)	PB-22 7-8 12/03/99 (µg/kg)	PB-01 7-8 05/25/01 (µg/kg)	PB-01 11-12 05/25/01 (µg/kg)	PB-01 15-16 05/25/01 (µg/kg)	PB-15 12-13 05/25/01 (µg/kg)	PB-15 15-16 05/25/01 (µg/kg)	PB-01-23 8-9 05/22/01 (µg/kg)	PB-01-23 12-13 05/22/01 (µg/kg)	PB-01-25 12-13 05/22/01 (µg/kg)	PB-01-25 14-15 05/25/01 (µg/kg)	PB-01-25 15-16 05/22/01 (µg/kg)	PB-01-25 18-19 05/25/01 (µg/kg)
SVOCs																	
Benzo (a) Anthracene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo (a) Pyrene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbazole	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Di-n-butyl phthalate	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Methylnaphthalene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	nd	nd	nd	nd	45.9	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenol	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VOCs																	
Acetone	nd	nd	70.6	nd	70.3	nd	510	510	440	840	540	300	400	390	520	nd	460
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	100	nd	nd	nd	nd
Butanone 2- (MEK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	150	140	200	nd	nd	nd
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	6.6	nd	nd	nd
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	9.1	nd	nd	4.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	83.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	nd	nd	nd	nd	nd	nd	77	nd	49	nd	nd	31	22	15	nd	nd	75
n-Butylbenzene	na	na	na	na	na	na	nd	36	nd	nd	nd	nd	nd	13	nd	nd	49
n-Propylbenzene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	6.9	nd	nd	nd
p-Isopropyltoluene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	9.4	nd	nd	nd
sec-Butylbenzene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	6.9	nd	nd	nd
Styrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	na	na	na	na	na	na	nd	34	nd	nd	nd	27	nd	32	nd	nd	nd
1,2,4-Trichlorobenzene	na	na	na	na	na	na	nd	nd	nd	nd	nd	nd	nd	26	nd	nd	nd
1,2,4-Trimethylbenzene	na	na	na	na	na	na	43	96	nd	64	nd	17	nd	19	69	830	110
1,3,5-Trimethylbenzene	na	na	na	na	na	na	nd	37	nd	34	nd	nd	nd	9.4	40	380	28
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	38.4	nd	2.1	25.1	11.4	nd	nd	126	nd	nd	nd	nd	nd	nd	77	nd	nd
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	nd	nd	nd	nd	nd	nd	nd	51	45	57	74	nd	nd	14	29	nd	43
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	nd	nd	nd	nd	nd	nd	na	na	na	na	na	na	na	na	na	na	na

Notes:
* - Subset 2 includes all Confirmation of Remediation Samples and Borin
na - not analyzed
nd - not detected
** bsg = below surface grade

Table
Risk Analysis for Subset 2*
Campbell Soup Supply Company
Napoleon, Ohio

DRAFT

Chemical of Concern Identified at the Site	PB-01-27 13-14 05/22/01 (µg/kg)	PB-01-27 15-16 05/22/01 (µg/kg)	PB-01-28 7-8 05/22/01 (µg/kg)	PB-01-28 12-13 05/22/01 (µg/kg)	PB-01-28 15-16 05/22/01 (µg/kg)	PB-01-29 12-13 05/22/01 (µg/kg)	PB-01-29 14-15 05/22/01 (µg/kg)	PB-01-31 4-5 05/22/01 (µg/kg)	PB-01-31 8-9 05/22/01 (µg/kg)	PB-01-31 10-11 05/22/01 (µg/kg)	PB-01-32 12-13 05/23/01 (µg/kg)	PB-01-32 14-15 05/23/01 (µg/kg)	PB-01-34 21-22 05/23/01 (µg/kg)	PB-01-34 25-26 05/23/01 (µg/kg)	PB-01-35 16-17 05/25/01 (µg/kg)	PB-01-35 20-21 05/25/01 (µg/kg)	PB-01-36 4-5 05/23/01 (µg/kg)
SVOCs																	
Benzo (a) Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo (a) Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbazole	nd	nd	nd	nd	nd	nd	nd	420	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Di-n-butyl phthalate	nd	nd	nd	nd	nd	nd	nd	940	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Methylnaphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	nd	nd	nd	nd	nd	nd	nd	570	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenol	nd	nd	nd	nd	nd	nd	nd	700	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VOCs																	
Acetone	135	140	260	170	190	108	190	280	360	300	390	nd	410	320	480	320	nd
Benzene	nd	nd	13	32	nd	nd	nd	nd	nd	nd	nd	nd	nd	13	nd	nd	nd
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)	81	79	120	110	92	77	130	99	190	nd	230	nd	140	180	nd	nd	nd
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	22	nd	nd	nd
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	nd	nd	nd	82	130	nd	nd	180	150	127	92	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	nd	nd	11	41	nd	11	8.1	9.4	nd	8.9	nd	nd	nd	28	nd	nd	nd
4-Chlorotoluene	nd	nd	12	46	nd	12	9.4	20	10	7	13	nd	nd	36	nd	nd	nd
1,2-Dichlorobenzene	nd	nd	11	37	nd	nd	nd	nd	nd	nd	nd	nd	nd	34	nd	nd	nd
1,3-Dichlorobenzene	nd	nd	13	45	nd	9.4	6.9	9.4	11	7.6	nd	nd	nd	34	nd	nd	nd
1,4-Dichlorobenzene	nd	nd	17	51	nd	nd	nd	nd	nd	nd	nd	nd	nd	33	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	15	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	14	nd	44	56	nd	13	16	52	nd	nd	19	nd	nd	40	nd	nd	nd
Isopropylbenzene	nd	nd	nd	39	nd	nd	nd	nd	nd	nd	nd	nd	nd	26	nd	nd	nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	78	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	38	49	63	57	52	59	56	35	37	32	38	nd	24	25	nd	nd	nd
n-Butylbenzene	8.8	13	22	52	17	19	15	24	14	12	95	nd	12	57	nd	nd	nd
n-Propylbenzene	nd	nd	23	53	nd	16	12	30	9.2	11	21	nd	6.1	32	nd	nd	nd
p-Isopropyltoluene	nd	nd	17	42	8.1	13	10	64	11	11	35	nd	7.2	41	nd	nd	nd
sec-Butylbenzene	nd	nd	15	33	nd	13	7.5	21	11	8.2	21	nd	6.6	33	nd	nd	nd
Styrene	nd	nd	nd	31	nd	nd	ND	nd	nd	nd	nd	nd	nd	22	nd	nd	ND
tert-Butylbenzene	nd	nd	6.7	22	nd	8.1	nd	7.5	nd	nd	nd	nd	nd	20	nd	nd	nd
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	29	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	nd	nd	38	86	19	18	21	18	21	18	nd	nd	15	64	36	nd	nd
1,2,4-Trichlorobenzene	nd	nd	36	87	18	14	16	18	17	16	14	nd	12	64	41	nd	nd
1,2,4-Trimethylbenzene	32	19	33	57	16	16	26	180	26	15	260	270	nd	96	nd	nd	nd
1,3,5-Trimethylbenzene	12	nd	15	41	9.4	13	19	89	21	8.2	66	nd	7.7	46	nd	nd	nd
Toluene	nd	nd	39	94	nd	nd	nd	31	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	62	nd	175	194	nd	nd	51	406	nd	nd	108	nd	nd	154	nd	nd	nd
trans-1,2-Dichloroethene	nd	nd	nd	21	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	nd	nd	nd	34	nd	33	nd	nd	nd	nd	13	nd	nd	26	nd	46	nd
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na

Notes:
* - Subset 2 includes all Confirmation of Remediation Samples and Borin
na - not analyzed
nd - not detected
** beg = below surface grade

Table
Risk Analysis for Subset 2*
Campbell Soup Supply Company
Napoleon, Ohio

DRAFT

Chemical of Concern Identified at the Site	PB-01-36 8-9 05/23/01 (µg/kg)	PB-01-36 12-13 05/23/01 (µg/kg)	PB-01-37 4-5 05/23/01 (µg/kg)	PB-01-37 8-9 05/23/01 (µg/kg)	PB-01-37 12-13 05/23/01 (µg/kg)	PB-01-38 7-8 05/23/01 (µg/kg)	PB-01-38 11-12 05/23/01 (µg/kg)	PB-01-38 13-14 05/23/01 (µg/kg)	PB-01-39 4-5 05/23/01 (µg/kg)	PB-01-39 7-8 05/23/01 (µg/kg)	PB-01-39 12-13 05/23/01 (µg/kg)	PB-01-40 4-5 05/24/01 (µg/kg)	PB-01-40 8-9 05/24/01 (µg/kg)	PB-01-40 12-13 05/24/01 (µg/kg)	PB-01-41 8-9 05/24/01 (µg/kg)	PB-01-41 12-13 05/24/01 (µg/kg)	PB-01-42 12-13 05/24/01 (µg/kg)
SVOCs																	
Benzo (a) Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo (a) Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbazole	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Di-n-butyl phthalate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Methylnaphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenol	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
VOCs																	
Acetone	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	340	nd	190	250	210	220	230
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	83	nd	nd	nd	nd	nd
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	110	nd	nd	89	nd	nd	nd
Butanone 2- (MEK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	140	nd	110	130	110	110	110
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	nd	56	nd	nd	nd	52	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	56	160	nd	nd	nd
2-Chlorotoluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	nd	nd	1400	nd	nd	nd	nd	nd	400	nd	nd	nd	nd	nd
Isopropylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	210	nd	nd	nd	nd	nd
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	nd	700	nd	nd	nd	300	nd	nd	420	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	130	nd	nd	nd	nd	nd
n-Propylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	230	nd	nd	nd	nd	nd
p-Isopropyltoluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Styrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	ND	nd
tert-Butylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	21	nd	nd	nd	nd
1,2,4-Trichlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	19	nd	nd	nd	nd
1,2,4-Trimethylbenzene	nd	nd	nd	nd	nd	220	nd	nd	nd	nd	nd	610	11	16	nd	nd	nd
1,3,5-Trimethylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	130	nd	nd	nd	nd	nd
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	490	nd	nd	nd	nd	nd
Total Xylenes	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1500	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	20	nd	nd	nd	24	14	nd
Vinyl Acetate	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na

Notes:
* - Subset 2 includes all Confirmation of Remediation Samples and Borin
na - not analyzed
nd - not detected
** bsg = below surface grade

Table
Risk Analysis for Subset 2*
Campbell Soup Supply Company
Napoleon, Ohio

DRAFT

Chemical of Concern Identified at the Site	PB-01-42	PB-01-43	PB-01-44	PB-01-45	PB-01-45	PB-01-46	PB-01-46	PB-01-46	PB-01-46	PB-01-47	PB-01-47	PB-01-47	PB-01-47	PB-01-48	PB-01-48	PB-01-49	PB-01-49
	14-15	12-13	12-13	12-13	14-15	4-5	10-11	17-18	20-21	4-5	8-9	11-12	15-16	11-12	15-16	3-4	7-8
	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/24/01 (µg/kg)	05/25/01 (µg/kg)	05/25/01 (µg/kg)
SVOCs																	
Benzo (e) Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Benzo (e) Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Carbazole	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Di-n-butyl phthalate	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
2-Methylnaphthalene	nd	nd	nd	620	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Naphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Phenanthrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Phenol	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
VOCs																	
Acetone	190	680	140	nd	290	160	nd	660	nd	370	320	440	300	330	380	340	290
Benzene	nd	nd	nd	100	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromoform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	nd	140	130	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)	94	230	190	nd	90	nd	nd	180	nd	160	100	nd	93	90	nd	240	130
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	8.2	13	nd	nd	nd	nd	nd	nd
Chloroform	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	nd	190	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	160	97	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	7.5	9.6	nd	nd	nd	nd	nd	nd	nd	14	19	nd	16	nd	nd	nd	nd
1,2-Dichlorobenzene	nd	18	nd	nd	nd	nd	nd	nd	nd	15	20	nd	20	nd	nd	nd	nd
1,3-Dichlorobenzene	5.5	14	nd	nd	nd	nd	nd	nd	nd	14	16	nd	14	nd	nd	nd	nd
1,4-Dichlorobenzene	nd	14	nd	nd	nd	nd	nd	nd	nd	18	21	nd	19	nd	nd	nd	nd
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	18	26	nd	19	nd	nd	nd	nd
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	89	12	nd	nd	nd	nd	nd	16	nd	nd	54	nd	nd	nd
Isopropylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	13	16	nd	18	nd	nd	nd	14
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	nd	17	19	nd	73	54	nd	nd	nd	71	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	13	12	nd	nd	14	nd	nd	40	nd	83	78	45	110	110	nd	nd	nd
n-Propylbenzene	8	nd	nd	nd	5.4	nd	nd	nd	nd	23	30	nd	40	nd	nd	nd	nd
p-Isopropyltoluene	10	12	nd	nd	9.2	nd	nd	nd	nd	14	21	nd	22	nd	nd	nd	nd
sec-Butylbenzene	7	8.4	nd	nd	5.4	nd	nd	nd	nd	19	26	nd	29	9.8	nd	nd	nd
Styrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	14	20	nd	23	nd	nd	nd	nd
tert-Butylbenzene	nd	6.8	nd	nd	nd	nd	nd	nd	nd	nd	15	nd	12	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	nd	nd	nd	9.8	6.4	nd	13	nd	nd	nd	nd
1,2,3-Trichlorobenzene	nd	66	nd	nd	nd	nd	nd	nd	nd	30	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	9.5	47	nd	nd	nd	nd	nd	nd	nd	40	40	93	27	nd	83	66	nd
1,2,4-Trimethylbenzene	24	42	nd	160	38	96	nd	92	290	38	43	70	30	nd	63	50	nd
1,3,5-Trimethylbenzene	10	8.5	nd	nd	10	56	nd	36	nd	21	26	nd	49	22	nd	nd	42
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	nd	14	22	nd	25	8	nd	nd	nd
Total Xylenes	nd	nd	nd	380	31	114	210	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	16	17	19	nd	15	nd	nd	nd	nd	32	24	40	36	18	46	16	nd
Trichlorofluoromenthane	nd	nd	nd	nd	nd	nd	nd	nd	nd	40	58	nd	57	33	nd	nd	nd
Vinyl Acetate	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na

Notes:
* - Subset 2 includes all Confirmation of Remediation Samples and Borin
na - not analyzed
nd - not detected
** bsg = below surface grade

DRAFT

Table
Risk Analysis for Subset 2*
Campbell Soup Supply Company
Napoleon, Ohio

Chemical of Concern Identified at the Site	PB-01-49 11-12 05/25/01 (µg/kg)	PB-01-50 3-4 05/25/01 (µg/kg)	PB-01-50 11-12 05/25/01 (µg/kg)	PB-01-50 16-17 05/25/01 (µg/kg)	PB-01-50 20-21 05/25/01 (µg/kg)	Max Concentration* Detected in Subset 2 MAX	Min Concentration* Detected in Subset 2 MIN	Nubmer of Detections In 106 Samples
SVOCs								
Benzo (a) Anthracene	nd	nd	nd	nd	nd	350	330	2
Benzo (a) Pyrene	nd	nd	nd	nd	nd	380	380	1
Carbazole	nd	nd	nd	nd	nd	420	420	1
Chrysene	nd	nd	nd	nd	nd	510	370	2
Di-n-butyl phthalate	nd	nd	nd	nd	nd	940	940	1
Fluoranthene	nd	nd	nd	nd	nd	820	610	2
2-Methylnaphthalene	nd	nd	nd	nd	nd	2200	460	4
Naphthalene	nd	nd	nd	nd	nd	8600	46	12
Phenanthrene	nd	nd	nd	nd	nd	1200	560	3
Phenol	nd	nd	nd	nd	nd	700	700	1
Pyrene	nd	nd	nd	nd	nd	610	560	3
VOCs						0		
Acetone	420	nd	330	170	230	840	40	54
Benzene	nd	nd	nd	nd	nd	100	13	5
Bromoform	nd	nd	nd	nd	nd	16	16	1
Bromomethane	nd	nd	nd	nd	nd	140	89	5
Butanone 2- (MEK)	nd	nd	nd	nd	nd	240	63	33
Chlorobenzene	nd	nd	nd	nd	nd	22	8	3
Chloroform	nd	nd	44	nd	nd	56	44	3
Chloromethane	170	nd	nd	nd	nd	190	56	12
2-Chlorotoluene	nd	nd	nd	nd	nd	41	8	10
4-Chlorotoluene	nd	nd	nd	nd	nd	46	7	14
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	37	11	7
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	45	6	14
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	51	4	8
1,2-Dichloroethane	nd	nd	nd	nd	nd	15	15	1
1,1-Dichloroethene	18	nd	nd	nd	nd	54	16	3
Ethylbenzene	nd	nd	nd	nd	nd	1400	2	26
Isopropylbenzene	nd	nd	nd	nd	nd	210	24	4
Methyl 4,-2-Propanone (MIBK)	nd	nd	nd	nd	nd	83	71	3
Methylene chloride	nd	nd	40	nd	54	700	15	33
n-Butylbenzene	nd	nd	nd	nd	nd	130	9	25
n-Propylbenzene	nd	nd	nd	nd	nd	230	5	19
p-Isopropyltoluene	nd	nd	nd	nd	nd	64	7	20
sec-Butylbenzene	nd	nd	nd	nd	nd	33	5	17
Styrene	nd	nd	nd	nd	nd	31	12	4
tert-Butylbenzene	nd	nd	nd	nd	nd	22	6	9
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	30	29	2
1,2,3-Trichlorobenzene	nd	nd	nd	nd	nd	93	15	22
1,2,4-Trichlorobenzene	nd	260	nd	nd	nd	260	10	23
1,2,4-Trimethylbenzene	nd	nd	nd	nd	nd	830	11	41
1,3,5-Trimethylbenzene	nd	nd	nd	nd	nd	380	8	32
Toluene	nd	nd	nd	nd	nd	490	2	7
Total Xylenes	nd	nd	nd	nd	nd	1500	2	27
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	21	21	1
Trichloroethene	nd	nd	nd	nd	nd	74	13	26
Trichlorofluoromenthane	nd	nd	nd	nd	nd	58	33	4
Vinyl Acetate	na	na	na	na	na	20	20	1

Notes:
* - Subset 2 includes all Confirmation of Remediation Samples and Borin
na - not analyzed
nd - not detected
** bsg = below surface grade

From: Kara Reynolds
To: mkovacich@geotransinc.com; thumphriss@geotransinc.com
Date: 10/28/03 11:50AM
Subject: Michael,

Michael,

Here's the information for the GCN values.

All values will be found on the GCN table that was included in the Certification Report NOD.

For 2-hexanone use the GCN values for methyl isobutyl ketone (MIBK).

For acenaphthylene use the GCN vales for acenaphthene.

For chlorodibromomethane use the GCN values for dibromochloromethane.

Please let me know if you have any other questions.

Thanks,
Kara

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: Terpinski, Michael

From: Jeff Reynolds
To: Kara Reynolds
Date: 10/28/03 11:23AM
Subject: Fwd: Re: structures

Kara, We are good to go on using the MIBK values for 2-hexanone. So now we've got all 3 covered I guess. Good luck with them this afternoon!
Jeff

>>> Stephanie Beak 10/28/03 10:59AM >>>
Jeff,

I think that does make sense. It may not be toxicologically exact, but a good conservative approximation (and a viable option for assessing the risk quantitatively). Thanks for your work on this.

Stephanie

>>> Jeff Reynolds 10/28/03 10:21AM >>>
Stephanie, I did some further checking into 2-hexanone as you suggested. It was not in TERA's database or Region IX's (I had checked this one before and didn't remember until I saw the table). So I looked into the structures of other ketones to try to assess which was the closest to 2-hexanone. Out of the ones we have values for MIBK may well be the most similar. It has the same formula with a branched structure (methyl group) instead of a straight chain. MEK and acetone are 2-3 carbons smaller even though they are straight chains.

MIBK is also the one with the lowest RfDo values. MEK is 6.0E-01, acetone is 1.0E-01, and MIBK is 8.0E-02. It seems like using this value as a surrogate would at least be a reasonable one to propose to Campbell's. If they come up with something better in response, we can evaluate that. But at least it's not qualitative. Let me know if you think it makes sense to recommend this approach to Kara.

Thanks!

From: Jeff Reynolds
To: Kara Reynolds
Date: 10/27/03 1:47PM
Subject: 2 down, 1 to go

Kara,
I talked to Stephanie and due to the very similar structures (and the precedent of others using them) of acenaphthene and acenaphthylene we should be okay to use that pair for surrogate compounds (and the GCN values will serve for both).

I'm going to do some more looking on 2-hexanone and will have to get back with you on that one. I'm going to look on a couple more web pages, compare chemical structures, etc. It's good to know they at least looked at it qualitatively but still tough to mix that in with all the quantitative numbers.

And since chlorodibromomethane is just another name for dibromochloromethane, we are all set with the GCN value there.

I'll get back with you soon! Jeff

>>> Kara Reynolds 10/27/03 12:52PM >>>
Jeff,

I told Stephanie that for the original draft for the certification, CSC used a qualitative assessment of some sort on the 2-hexanone. I didn't look into it very well, I just figured that they didn't know the GCN to use and did it that way, but maybe Mylynda already oked it.

As for the other two chemicals, did the surrogates still need to be oked by Stephanie, or did she already ok them? I was a little confused.

Let me know when you get a chance,

Kara

CC: Stephanie Beak

JPMorgan

JPMorgan Chase Bank
Global Trade Services

OCTOBER 24, 2003
L/C NO.: P-226893
AMENDMENT NO: 1

Advising Bank

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N.W.D.O.

********** DIRECT **********

APPLICANT:
CAMPBELL SOUP CO
1 CAMPBELL PLACE
CAMDEN, NJ 08103

Beneficiary

MAIL TO

OHIO ENVIRONMENTAL PROTECTION
AGENCY
(SEE BELOW FOR FULL ADDRESS)

IN ACCORDANCE WITH INSTRUCTIONS RECEIVED, THE ABOVE-REFERENCED LETTER OF CREDIT HAS BEEN AMENDED AS FOLLOWS:

1 - APPLICANT NAME AND ADDRESS ARE CORRECTED TO READ AS INDICATED ABOVE.

2 - THE ENTIRE TEXT OF THE LETTER OF CREDIT IS AMENDED TO READ AS FOLLOWS:

BENEFICIARY'S FULL ADDRESS:
OHIO ENVIRONMENTAL PROTECTION AGENCY
NORTWEST DISTRICT OFFICE
DIVISION OF HAZARDOUS WASTE MANAGEMENT
347 NORTH DUNBRIDGE ROAD
BOWLING GREEN, OH 43402

IRREVOCABLE STANDBY LETTER OF CREDIT

CHRISTOPHER JONES, DIRECTOR
OHIO ENVIRONMENTAL PROTECTION AGENCY

DEAR SIR OR MADAM:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. P-226893 IN YOUR FAVOR, AS TRUSTEE PURSUANT TO THAT CERTAIN STANDBY TRUST AGREEMENT ENTERED INTO AS OF JULY 15, 2002, BY AND BETWEEN JPMORGAN CHASE BANK AND CAMPBELL SOUP COMPANY, AT THE REQUEST AND FOR THE ACCOUNT OF CAMPBELL SOUP COMPANY, 1 CAMPBELL PLACE, CAMDEN, NJ 08103, FOR THIRD-PARTY LIABILITY AWARDS OR SETTLEMENTS UP TO ONE MILLION U.S. DOLLARS (USD1,000,000) PER OCCURRENCE AND THE ANNUAL AGGREGATE AMOUNT OF TWO MILLION U.S. DOLLARS (USD2,000,000), FOR SUDDEN ACCIDENTAL OCCURRENCES AVAILABLE UPON PRESENTATION OF A SIGHT DRAFT, BEARING REFERENCE TO THIS LETTER OF CREDIT NO. P-226893.

THIS LETTER OF CREDIT IS EFFECTIVE AS OF JULY 15, 2002 AND WILL EXPIRE ON JULY 15, 2003, BUT SUCH EXPIRATION DATE WILL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF AT LEAST ONE YEAR ON JULY 15, 2003 AND ON EACH SUCCESSIVE

-CONTINUED-

Authorized Signature

JPMorgan

JPMorgan Chase Bank
Global Trade Services

OCTOBER 24, 2003
L/C NO.: P-226893
AMENDMENT NO: 1

Advising Bank

********** DIRECT **********

APPLICANT:
CAMPBELL SOUP CO
1 CAMPBELL PLACE
CAMDEN, NJ 08103

Beneficiary

MAIL TO

OHIO ENVIRONMENTAL PROTECTION
AGENCY
(SEE BELOW FOR FULL ADDRESS)

EXPIRATION DATE, UNLESS, AT LEAST ONE HUNDRED TWENTY DAYS BEFORE THE CURRENT EXPIRATION DATE, WE NOTIFY YOU, THE DIRECTOR AND CAMPBELL SOUP COMPANY, 1 CAMPBELL PLACE, CAMDEN, NJ 08103, BY CERTIFIED MAIL OR COURIER THAT WE HAVE DECIDED NOT TO EXTEND THIS LETTER OF CREDIT BEYOND THE CURRENT EXPIRATION DATE. WHENEVER THIS LETTER OF CREDIT IS DRAWN ON, UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT, WE WILL DULY HONOR SUCH DRAFT UPON PRESENTATION TO US.

WE CERTIFY THAT THE WORDING OF THIS LETTER OF CREDIT IS IDENTICAL TO THE WORDING SPECIFIED IN PARAGRAPH (K) OF RULE 3745-55-51 OF THE ADMINISTRATIVE CODE AS SUCH REGULATIONS WERE CONSTITUTED ON THE DATE SHOWN IMMEDIATELY BELOW:

ISSUE DATE: JULY 18, 2002.

THIS CREDIT IS SUBJECT TO THE UNIFORM COMMERCIAL CODE.

.....
AUTHORIZED SIGNER

.....
NAME

.....
TITLE

DATE: .....

ALL OTHER TERMS AND CONDITIONS OF THE CREDIT REMAIN UNCHANGED.

P-226893- -003-A1-01-

Authorized Signature

JPMorgan

JPMorgan Chase Bank
Global Trade Services

OCTOBER 24, 2003
L/C NO.: P-226892
AMENDMENT NO: 1

Advising Bank

********** DIRECT **********

APPLICANT:
CAMPBELL SOUP CO
1 CAMPBELL PLACE
CAMDEN, NJ 08103

Beneficiary

MAIL TO

OHIO ENVIRONMENTAL PROTECTION
AGENCY, NORTWEST DISTRICT OFFICE,
DIV OF HAZARDOUS WASTE MNGMT, 347
(SEE BELOW FOR FULL ADDRESS)

IN ACCORDANCE WITH INSTRUCTIONS RECEIVED, THE ABOVE-REFERENCED LETTER OF CREDIT HAS BEEN AMENDED AS FOLLOWS:

1 - APPLICANT NAME AND ADDRESS ARE CORRECTED TO READ AS INDICATED ABOVE.

2 - THE ENTIRE TEXT OF THE LETTER OF CREDIT IS AMENDED TO READ AS FOLLOWS:

BENEFICIARY'S FULL ADDRESS:
OHIO ENVIRONMENTAL PROTECTION AGENCY
NORTWEST DISTRICT OFFICE
DIVISION OF HAZARDOUS WASTE MANAGEMENT
347 NORTH DUNBRIDGE ROAD
BOWLING GREEN, OH 43402

"IRREVOCABLE STANDBY LETTER OF CREDIT"

CHRISTOPHER JONES, DIRECTOR
OHIO ENVIRONMENTAL PROTECTION AGENCY

DEAR SIR OR MADAM:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. P-226892 IN YOUR FAVOR, AT THE REQUEST AND FOR THE ACCOUNT OF CAMPBELL SOUP COMPANY, 1 CAMPBELL PLACE, CAMDEN, NJ 08103, UP TO THE AGGREGATE AMOUNT OF FIVE HUNDRED EIGHTY SIX THOUSAND FIVE HUNDRED TWENTY THREE AND 00/100 U.S. DOLLARS (USD586,523.00) AVAILABLE UPON PRESENTATION OF:

(1) YOUR SIGHT DRAFT, BEARING REFERENCE TO THIS LETTER OF CREDIT NO. P-226892, AND

(2) YOUR SIGNED STATEMENT READING AS FOLLOWS: "I CERTIFY THAT THE AMOUNT OF THE DRAFT IS PAYABLE PURSUANT TO REGULATIONS ISSUED UNDER THE AUTHORITY OF CHAPTER 3734, OF THE OHIO REVISED CODE AS AMENDED".

THIS LETTER OF CREDIT IS EFFECTIVE AS OF JULY 15, 2002 AND WILL EXPIRE ON JULY 15, 2003, BUT SUCH EXPIRATION

-CONTINUED-

Authorized Signature

JPMorgan
JPMorgan Chase Bank
Global Trade Services

OCTOBER 24, 2003
L/C NO.: P-226892
AMENDMENT NO: 1

Advising Bank

********** DIRECT **********

APPLICANT:
CAMPBELL SOUP CO
1 CAMPBELL PLACE
CAMDEN, NJ 08103

Beneficiary

MAIL TO

OHIO ENVIRONMENTAL PROTECTION
AGENCY, NORTWEST DISTRICT OFFICE,
DIV OF HAZARDOUS WASTE MNGMT, 347
(SEE BELOW FOR FULL ADDRESS)

DATE WILL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF ONE YEAR ON JULY 15,2003 AND ON EACH SUCCESSIVE EXPIRATION DATE, UNLESS, AT LEAST ONE HUNDRED TWENTY DAYS PRIOR TO THE CURRENT EXPIRATION DATE, WE NOTIFY BOTH YOU AND THE CAMPBELL SOUP COMPANY, 1 CAMPBELL PLACE, CAMDEN, NJ 08103, BY CERTIFIED MAIL OR COURIER THAT WE HAVE DECIDED NOT TO EXTEND THIS LETTER OF CREDIT BEYOND THE CURRENT EXPIRATION DATE. IN THE EVENT THAT YOU ARE SO NOTIFIED, ANY UNUSED PORTION OF THE CREDIT WILL BE AVAILABLE UPON PRESENTATION OF YOUR SIGHT DRAFT FOR ONE HUNDRED TWENTY DAYS AFTER THE FIRST DAY OF RECEIPT BY BOTH YOU AND CAMPBELL SOUP COMPANY AS EVIDENCED BY THE RETURN RECEIPTS.

WHENEVER THIS LETTER OF CREDIT IS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT, WE WILL DULY HONOR SUCH DRAFT UPON PRESENTATION TO US, AND WE WILL DEPOSIT THE AMOUNT OF THE DRAFT DIRECTLY INTO THE STANDBY TRUST FUND OF CAMPBELL SOUP COMPANY IN ACCORDANCE WITH YOUR INSTRUCTIONS.

WE CERTIFY THAT THE WORDING OF THIS LETTER OF CREDIT IS IDENTICAL TO THE WORDING SPECIFIED IN PARAGRAPH (D) OF RULE 3745-55-51 OF THE ADMINISTRATIVE CODE AS SUCH REGULATIONS WERE CONSTITUTED ON THE DATE SHOWN IMMEDIATELY BELOW:

JULY 18, 2002

THIS CREDIT IS SUBJECT TO THE UNIFORM COMMERCIAL CODE.

AUTHORIZED SIGNATURE

NAME

TITLE

DATE:

-CONTINUED-

Authorized Signature

JPMorgan

JPMorgan Chase Bank
Global Trade Services

OCTOBER 24, 2003
L/C NO.: P-226892
AMENDMENT NO: 1

Advising Bank

********** DIRECT **********

APPLICANT:
CAMPBELL SOUP CO
1 CAMPBELL PLACE
CAMDEN, NJ 08103

Beneficiary

MAIL TO

OHIO ENVIRONMENTAL PROTECTION
AGENCY, NORTWEST DISTRICT OFFICE,
DIV OF HAZARDOUS WASTE MNGMT, 347
(SEE BELOW FOR FULL ADDRESS)

ALL OTHER TERMS AND CONDITIONS OF THE CREDIT REMAIN UNCHANGED.

Authorized Signature

P-226892- -003-A1-01-

From: Jeff Reynolds
To: Kara Reynolds
Date: 10/23/03 3:57PM
Subject: soup pits

Kara,

Chlorodibromomethane is a synonym of dibromochloromethane (CAS#124-48-1) - see the below ATSDR site for more info
there is also a synonyms tab on the GCN spreadsheet but it's a little hard to line up the numbers from tab to tab sometimes
http://www.atsdr.cdc.gov/toxprofiles/tp130.html#4
or look at the iris page under dibromochloromethane
http://www.epa.gov/iris/subst/0213.htm
Anyway, the GCN values for the synonym compound can be used.

I think we have used Acenapthene (CAS#83-32-9) as a risk surrogate compound for **acenaphthylene** (CAS#208-96-8)
Acenapthene (C12H10) and acenaphthylene (C12H8) are very similar, just a double bond different, if you care, you can check it out at:
http://webbook.nist.gov/chemistry/cas-ser.html
I was looking to find a source for the use of the surrogate part. I found an old memo (1997) from the "Environmental Assessment Unit" saying that was the one to use? Then I found a paper from Alaska that referred to the NCEA saying that was the surrogate to use (as a footnote to a table in the attached file). But then Florida (see below) uses pyrene Which has 3 benzene rings instead of 2 plus a five carbon ring.

2-hexanone (CAS #591-78-6) has some information on the ATSDR page as well
http://www.atsdr.cdc.gov/toxprofiles/tp44.html
This one isn't on IRIS, so we need to look elsewhere. Erik had a Florida document (also attached - from the University of Florida) that makes reference to an NCEA value for an RfDo for 2-hexanone and then extrapolated the other two values (RfDi and RfDd) from that. The same table used pyrene as a surrogate for acenaphthylene and so gave a value half as big as acenaphthene's.

BUT THEN, I called NCEA and they said the two old papers for 2-hexanone had been withdrawn and they were waiting on two new ones (Rfc and Rfd) and that they would send those when they were finished. Since they are still awaiting internal review and external review that sounds like it will be a while to me. I'll have to check with Stephanie on what to do about not having current values for 2-hexanone (and not having a direct source for the out of date values). I'll also check with her to confirm our preferred surrogate (or other approach) for acenaphthylene. I'll get back with you soon!

Jeff

CC: Michael Terpinski; Stephanie Beak

GeoTrans, Inc.
A TETRA TECH COMPANY

FAX TRANSMISSION COVER SHEET

710 Avis Drive
Ann Arbor, MI 48108
(734) 213-2204
Fax: (734) 213-5008

To: KARA REYNOLDS
Date: 10-22-03
Company or Division: NWDO OHIOEPA
No. Of Pages: FIVE (including Cover Sheet)
Fax No.: 419-352-8468
Phone No.: 419-373-3065
From: MICHAEL KOVACICH
Remarks:

KARA,

PLEASE REVIEW THE ATTACHED E-MAIL AND GIVE ME A CALL TO SCHEDULE A TIME FOR A CONFERENCE CALL TO DISCUSS YOUR COMMENTS.

THANKS

MIKE

IF YOU DO NOT RECEIVE THE NUMBER OF PAGES LISTED ABOVE, PLEASE CALL.

This facsimile contains **Privileged and Confidential** information intended only for the use of the Addressee(s) named above. If you are not the intended recipient of this facsimile, or employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination or copying of this facsimile is strictly prohibited. If you received this facsimile in error, please notify us by telephone and return the original facsimile to us at the above address via the U.S. Postal service. Thank You.

From: Michael Kovacich
To: Kara Reynolds
Date: 10/21/03 5:56PM
Subject: Napoleon Revised Risk Assessment Methods

Kara,

We have completed our review of the Ohio EPA's, October 14, 2003 email regarding our proposed risk assessment methods for the Former Holding Pit Unit RCRA Closure. We have revised the risk assessment methods to address the Ohio EPA comments listed in the October 14, 2003 email. Please review the attached draft letter that summarizes the development of the risk assessment methods used at the site and our proposed revisions.

Following your review please give me a call to discuss the revised methods. I can arrange a conference call with our toxicologist if you have any specific questions for her.

Sincerely,

Michael Kovacich, CPG
Senior Hydrogeologist
GeoTrans, Inc.
phone: 734.213.5024
fax:734.213.5008

CC: O.ALY@worldnet.att.net; osman_aly@campbellsoup.com

DRAFT

October 21, 2003

Ms. Kara Reynolds
Ohio Environmental Protection Agency – NWDO
347 North Dunbridge Rd.
Bowling Green, Ohio 43402

Re: Revised Risk Assessment Methods
RCRA Site Closure Certification Report Former Holding Pit Unit
Campbell Soup Supply Company, Napoleon, Ohio

Dear Ms. Reynolds:

GeoTrans, Inc. has evaluated all of the Ohio EPA comments regarding our proposed methods for performing a risk assessment for the RCRA closure at the Former Holding Pit, Campbell Soup Supply Company (Campbell) Napoleon, Ohio. GeoTrans has revised the risk assessment methods to address the Ohio EPA concerns. Prior to discussing our recently revised methods we have provided a short summary of our previous work and key Ohio EPA comments.

BACKGROUND

In January 2003, representatives of Campbell and the Ohio EPA worked together to develop a revised closure strategy that would meet Ohio EPA' s closure requirements for unrestricted use at the site. A revised closure strategy was needed, because previously unknown construction demolition debris including concrete, steel reinforcing bars, nails, wood, roofing felt, asphalt and isolated pockets of asphalt tar, was encountered in the excavation. This demolition debris is believed to be the source of elevated PAHs, specifically benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and indeno (1,2,3-cd) pyrene, reported in the treated soil stockpiles. These elevated PAHs in the treated soil stockpile required a change in the closure strategy. Immediately following the identification of elevated PAHs in the treated soil stockpiles, Campbell began working with the Ohio EPA to revise the closure strategy. Campbell and the Ohio EPA agreed on two revisions to the closure strategy. First, soil that could not be treated, due to the presence of demolition debris, would be disposed offsite at a licensed landfill. Second, a risk assessment would be performed on all of the samples that represented the final closure unit, which consisted of the limit of the excavation, as defined by the closure plan, and the proposed backfill of overburden and treated soil. The specific samples that were used to represent the closure unit were collected from the overburden stockpiles (CS-02-01 through CS-02-17 and IS-02-01 through IS-02-03), the excavation sidewalls and floor (SW and FL samples), and the treated soil stockpiles (VR-02-01 through VR-03-14).

GeoTrans submitted a letter documenting the following risk assessment to the Ohio EPA on January 17, 2003. The maximum concentration of each detected chemical of concern (COC) was determined for the post closure samples, as defined above. The maximum concentration was then divided by its respective generic clean-up number (GCN) and the resulting ratios were summed. Exceptions from the use of the maximum concentration were granted for eight COCs. In place of the maximum concentration, the 95% upper confidence limit based on a student's "t" test (UCL) was substituted for the maximum concentration. Non-detected concentrations of the COCs were added to the data set at one half of the detection limits.

Each treated soil stockpile was tested in accordance with the approved closure plan. Per the closure plan, the treated soil was to be placed in the excavation following treatment. However, elevated concentrations of PAHs required the use of a risk assessment to determine which treated piles could be placed in the excavation and which piles would be disposed off site. Treated soil stockpiles with the highest concentrations of PAHs were removed from the site for offsite disposal and therefore were eliminated from the risk calculation. This process was repeated until the collective risk posed by the remaining treated soil and the rest of the closure unit met the requirements for unrestricted closure (the sum of ratios (UCL/GCN) less than 1). A spreadsheet documenting this calculation was submitted via –email to Mr. James Moseley and Ms. Mylinda Shaska of the Ohio EPA for comment. Mr. Moseley explained that he would defer to Ms. Shaska regarding the approval of this approach. Following Ms. Shaska's review of the spreadsheet, Ms. Shaska provided a verbal approval for this approach to Tesha Yielding on March 31, 2003.

CLOSURE PLAN IMPLEMENTATION

The project proceeded and approximately 1,200 tons of treated soil with the highest concentration of PAHs was transported for offsite disposal at the Henry County Landfill. The remaining treated soil stockpiles were combined with the overburden soils and returned to the excavation. On July 3, 2003, the Certification Report was submitted to the Ohio EPA. Upon review of the risk assessment presented in the certification report, the Ohio EPA requested that all of the samples and all of the COC data observed at every sample location of the bermed area be included in the risk assessment (Comment #32, Attachment A, Notice of Deficiency, September 4, 2003). This request effectively expanded the closure unit from the limits of the excavation to the entire bermed area. During our September 29, 2003 meeting with the Ohio EPA, Campbell agreed with the expansion of the closure unit and that all of the available data from the bermed area would be included in the revised risk assessment.

An analysis was conducted of the data from the investigation borings to determine which samples remained on site following the remediation. Once the fate of each sample was determined, all of the samples that represented soil that currently occupies the bermed area were included in a revised risk assessment. Prior to the use of the student's t test to calculate the UCL for the eight COCs, the Ohio EPA requested (Comment # 30) that the distribution of the data be determined for each parameter's data set. The Ohio EPA was concerned that the appropriate method was used to determine the UCLs. When all of the available data was combined, including one half the detection limit for the non-detectable samples, the distributions for the four PAHs were neither normally nor log-normally distributed. However, when the non-detectable samples were eliminated from the data set, the remaining samples were log-normally distributed. In an e-mail dated October 1, 2003, GeoTrans proposed to determine the distribution of the data from the detectable concentrations only. Following this determination, both the non-detect and the detectable samples would be included in the risk assessment data set and the UCLs would be determined.

On October 14, 2003, the Ohio EPA, indicated by e-mail that the use of samples with non-detectable concentrations would not be appropriate in the determination of the UCL. The Ohio EPA's reason for the exclusion of the non-detectable concentrations from the UCL determination was that the non-detectable samples represent a separate population from the treated soil. The Ohio EPA also stated that if the data was not normally or log normally distributed, non-parametric methods to determine the 90 percentile would be appropriate.

REVISED RISK ASSESSMENT

Upon review of the Ohio EPA's October 14, 2003 comments, Campbell proposes the following methods and assumptions to complete the risk assessment. During the September 29, 2003 meeting,

the Ohio EPA and Campbell agreed that the entire bermed area represents the closure unit and that all of the data that currently represents the bermed area would be included in the risk assessment. Thus, the data from the bermed area represents a single population. Based on the Ohio EPAs October 14, 2003 comments, Campbell proposes that this single population could be divided into the following two subsets:

- Soil that has never been excavated or treated. This subset would be characterized by the investigation samples that remain on the site following remediation, and all samples collected from the excavation sidewalls and floor.

- The excavation backfill. This subset would be characterized by the samples collected from the overburden stockpiles (CS-02-01 through CS-02-17, IS-03-01, IS-03-02 and IS-03-03) and the remaining treated soils (VR-02-01 through VR-02-03, VR-03-06, and VR-03-08 through VR-03-14)) that were combined with the overburden soils and used as backfill in the excavation. Since non-detectable and detectable concentrations of the PAHs were identified in both treated and overburden backfill, this subset is valid.

Separate risk assessment will be completed for each subset of samples. Per the EPA Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A), all validated samples "including non-detectable" concentrations should be used to determine the exposure concentrations. The data representing excavation backfill does not fit a normal or log-normal distribution and therefore must be evaluated using nonparametric techniques. In general, nonparametric techniques rely on ranking the data to determine percentiles. Non-detect data points are typically used in nonparametric calculations. (Source: Ohio EPA Technical Decision Compendium BA30007.03.016). Campbell proposes the Wilcoxon Signed Rank Test of the median to calculate the confidence interval and the 90th percentile upper concentration limit requested in the Ohio EPA email (October 14, 2003). This analysis will be applied to the following COCs in the backfill: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, indeno (1,2,3-cd) pyrene, and chloroform.

We look forward to discussing your comments regarding these methods.

Sincerely,

Michael S. Kovacich, CPG
Senior Hydrogeologist

Erik A. Petrovskis, Ph.D., P.E.
Principal Engineer

copy: Mr. Michael Terpinski, Ohio EPA, NWDO
Dr. Osman Aly, Campbell
Mr. Michael Maringer, Campbell

p:/projects/campbell soup/correspondence/revised risk assessmentmsk.doc

From: Kara Reynolds
To: mkovacich@geotransinc.com
Date: 10/14/03 12:16PM
Subject: Statistical Evaluation

Michael,

I just left a voice mail on your phone, but I decided to e-mail you the majority of the information.

On October 1, 2003, you e-mailed me the following question:

"2) Statistical Evaluation
We wanted to verify with you the following process. We plan to complete a statistical evaluation (i.e. determining if the data is normally distributed) for all parameters in which an UCL, instead of a maximum concentration, is used in the risk assessment. Normal or log-normal distribution will be determined from only the samples with detections (for example, ~120 samples are now being used in the risk assessment. For benzo(a)pyrene there were 15 detections above the MDL out of the ~120 samples. We determined the 15 samples with detections were log- normally distributed.) After determination of normal or log-normal distribution we will reintroduce the non-detect values at ½ the MDL and run the appropriate UCL calculation. We plan to the use the statistical software available on the Michigan Department of Environmental Quality's web page, which can be found at http://www.michigan.gov/deq/0,1607,7-135-3311_4109_9846---,00.html , bottom of the page under Part 201 StatSoft. This software will be used to determine normal or log-normal distribution and to calculate the UCL. Is this process acceptable to the Ohio EPA?"

After reviewing the data, it has been determined that this process deals with combining two different populations; the first is the data set of remediated soil and the second is the data set of soil that has not been remediated. Since there are two different populations, they should not be combined for one part of the statistical test and separated for the other.

Normally, in a situation like this (where there is a very large percentage of non-detects (ND)), our guidance would call for the maximum concentration to be used for all constituents of concern (COCs) in the risk assessment (RA). However, we are deviating from our guidance and giving you the following option. If you do not pass risk when using the maximum concentration for all COCs, then the following may be used.

All COCs that have less than 10 detections must use a maximum concentration in the RA. For the COCs that Campbell Soup Company (CSC) was going to use a 95% Upper Confidence Limit (UCL) in the RA (and have 10 or more detections), first find the distribution of the data using only the detected data (do not use the NDs). If the data is normally distributed or log-normally distributed, then proceed to find the 95% UCL of the detected data only (do not use the NDs). This will be used in the RA. If the data is not normally or log-normally distributed, then a non-parametric test will be used to find the 90th percentile. This 90th percentile will be used in the RA.

Ohio EPA does not have a problem with CSC using the above website to calculate the 95% UCL and to determine the distribution of the data.

Please note that Comment 4 of the Revised Closure Plan Approval Letter, dated August 1, 2002, states that "If Campbell is not able to demonstrate clean closure of the contaminated area at the time of submission of the certification report, Campbell shall either excavate and dispose of all contaminated material off-site or submit an amended closure plan which details the measures necessary to close as a surface impoundment in accordance with OAC rule 3745-67-28. Should the latter alternative be chosen, Campbell shall submit a closure/post-closure care plan pursuant to OAC rules 3745-66-10 through 3745-66-20 and 3745-68-10."

If you have any questions, please contact me at 419-373-3065.

Thank you,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: dbeck@geotransinc.com; Hagen, Erik; osman_aly@campbellsoup.com; Terpinski, Michael; thumphriss@geotransinc.com

From: Erik Hagen
To: Kara Reynolds
Date: 10/10/03 3:27PM
Subject: Draft Campbell's memo

Kara,

I pulled some quick thoughts together concerning the Campbell's exposure point concentration. I'll be in on Tuesday. Call me and we can discuss the issues and decide on a course of action.

Erik

Memorandum

To: Kara Reynolds, DHWM, NWDO

From: Erik Hagen, CO, ERAS

Subject: Statistical Procedure Proposed by Campbell Soup, Napoleon Site.

Date: October 9, 2003

Campbell's Soup of Napoleon, OH. is evaluating the risk posed by contamination left in soil after remediation efforts at the facility. This risk assessment is dependent upon adequately determining an exposure point concentration. Normally, an exposure concentration is based either on an upper 95% confidence interval (95% UCL) of the mean of data measurements or the maximum value from the data set is used. The logic of how to set an exposure point concentration is dependent on the number of samples, the number of non-detected values, and the underlying data distribution. The data set present by Campbell's consultants is highly skewed and biased toward the detection limit (approximately 90% non-detected data). For exposure concentration determinations with data of these characteristics, DHWM advises that nonparametric tests or a maximum value of detected be used (Closure Plan Review Guidance, 1999) in setting the input values for the exposure point concentration.

Consultants for the facility have proposed to determine exposure input values by completing a statistical evaluation (i.e. determining if the data is normally distributed) for all parameters, instead of using a maximum concentration, in the risk assessment. Either a normal or log-normal distribution will be determined only from the samples with detections. After determination of either a normal or log-normal distribution, the consultant proposes to re-introduce the non-detect values at ½ the MDL and run the appropriate UCL calculation. Furthermore, the consultants plan to the use the statistical software available from the Michigan Department of Environmental Quality.

I view this approach as technically unsound. Since active remediation has already taken place, the isolated detections of constituents of concern indicate areas of inadequate remediation analogous to hot spots. Therefore, combining non-detected data with detected data constitutes mixing two populations together and is statistically invalid. In addition, the issues associated with performing statistical procedures on highly censored data (>50%) render the proposed procedure of calculating the 95% UCL as invalid. Therefore, It is inconsequential whether the non-detected data is combined before or after a determination of detected populations distribution is made. The end result is a significant bias toward half the detection limit value. For this reason DHWM has stated in guidance that the maximum detected value is reasonable maximum exposure concentration and should be used to determine the exposure point concentration.

I would propose the following options for the facility to follow.

1. Calculate risk using the maximum detected value. If the calculate risk is above the

risk goals for the project, the facility and Ohio EPA can determine whether a risk management option is available. For example, if concentration of chemicals of concern are below grade where direct contact standards can be met, and where leaching to ground water is not a concern, then a deed restriction can be applied and closure can proceed.

2. Calculate a non-parametric estimate (such as the 90th percentile of the data set) to use as in an exposure point concentration.

3. The exposure point calculation can be made by assessment the distribution of the detected values for each compound and then determining an appropriate (normal or lognormal) 95%UCL.

Descriptive Statistics Report-Campbell's Soup, Napoleon

Benzo(a)anthracene - non-detects removed

Summary Section of Benzo(a)Anthracene (ug/kg)

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
16	546.25	296.0602	74.01506	170	1160	990

Counts Section of Benzo(a)Anthracene ug/kg

Rows	Sum of Frequencies	Missing Values	Distinct Values	Sum	Total Sum Squares	Adjusted Sum Squares
16	16	0	15	8740	6089000	1314775

Means Section of Benzo(a)Anthracene__ug/kg_

Parameter	Mean	Median	Geometric Mean	Harmonic Mean	Sum	Mode
Value	546.25	450	467.8728	394.0863	8740	330
Std Error	74.01506				1184.241	
95% LCL	388.4906	330			6215.85	
95% UCL	704.0093	780			11264.15	
T-Value	7.3803					
Prob Level	0.000002					
Count	16		16	16		2

Variation Section of Benzo(a)Anthracene__ug/kg_

Parameter	Variance	Standard Deviation	Unbiased Std Dev	Std Error of Mean	Interquartile Range	Range
Value	87651.66	296.0602	301.0322	74.01506	472.5	990
Std Error	23524.95	56.1867		14.04668		
95% LCL	47830.19	218.7011		54.67529		
95% UCL	209956.3	458.2098		114.5525		

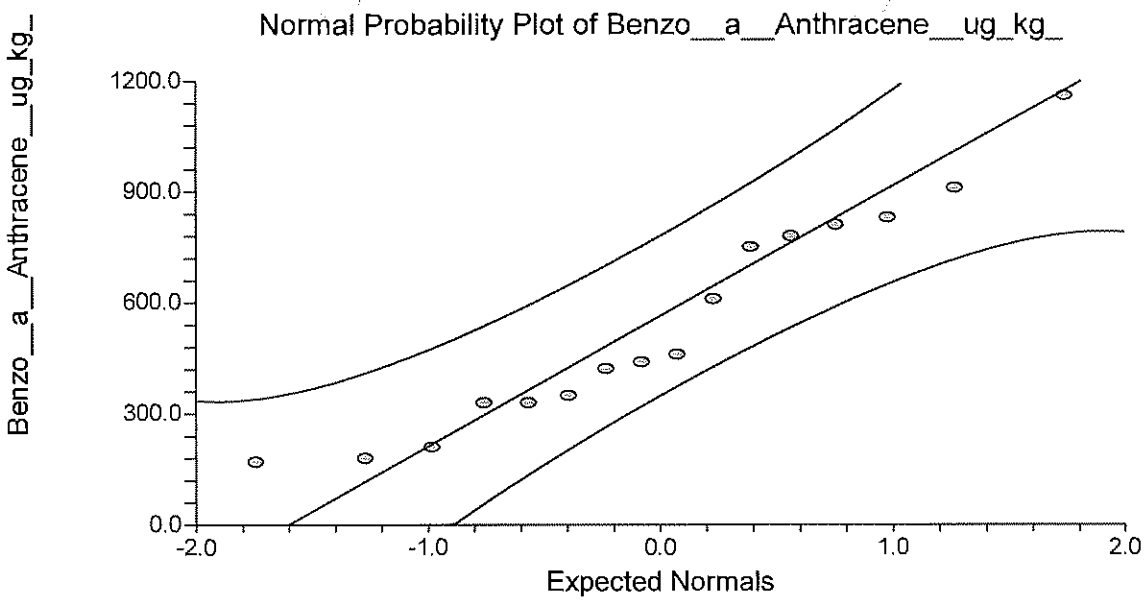
Quartile Section of Benzo(a)Anthracene__ug/kg_

Parameter	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Value	177	330	450	802.5	985
95% LCL		170	330	460	
95% UCL		440	780	1160	

Normality Test Section of Benzo(a)Anthracene (ug/kg)

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Shapiro-Wilk W	0.9322637	0.264718			Accept Normality
Anderson-Darling	0.4411071	0.289873			Accept Normality
Martinez-Iglewicz	1.044828		1.267819	1.475586	Accept Normality
Kolmogorov-Smirnov	0.1770989		0.195	0.213	Accept Normality
D'Agostino Skewness	0.9220	0.356514	1.645	1.960	Accept Normality
D'Agostino Kurtosis	-0.5908	0.554630	1.645	1.960	Accept Normality
D'Agostino Omnibus	1.1992	0.549025	4.605	5.991	Accept Normality

Plots Section of Benzo__a__Anthracene__ug_kg_



Descriptive Statistics Report - Campbell's Soup, Napoleon

Benzo(a)anthracene - complete dataset with non-detects

Summary Section of Benzo(a)Anthracene

Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	Range
100	239.925	178.6646	17.86646	165	1160	995

Counts Section of Benzo(a)Anthracene

Rows	Sum of Frequencies	Missing Values	Distinct Values	Sum	Total Sum Squares	Adjusted Sum Squares
100	100	0	27	23992.5	8916582	3160181

Means Section of Benzo(a)Anthracene

Parameter	Mean	Median	Geometric Mean	Harmonic Mean	Sum	Mode
Value	239.925	180	209.7603	195.8867	23992.5	165
Std Error	17.86646				1786.646	
95% LCL	204.4741	165			20447.41	
95% UCL	275.3759	183.5			27537.59	
T-Value	13.4288					
Prob Level	0.000000					
Count	100		100	100		43

Variation Section of Benzo(a)Anthracene

Parameter	Variance	Standard Deviation	Unbiased Std Dev	Std Error of Mean	Interquartile Range	Range
Value	31921.02	178.6646	179.1163	17.86646	41.5	995
Std Error	11174.08	44.22403		4.422403		
95% LCL	24607.79	156.8687		15.68687		
95% UCL	43077.08	207.5502		20.75502		

Trimmed Section of Benzo(a)Anthracene

Parameter	5% Trimmed	10% Trimmed	15% Trimmed	25% Trimmed	35% Trimmed	45% Trimmed

Trim-Mean	207.5278	189.6563	181.8929	178.49	176.8833	180.4
Trim-Std Dev	93.45171	39.53404	18.7009	12.39218	7.762291	0.9660918
Count	90	80	70	50	30	10

Mean-Deviation Section of Benzo__a__Anthracene

Parameter	|X-Mean|	|X-Median|	(X-Mean)^2	(X-Mean)^3	(X-Mean)^4
Average	103.7225	73.075	31601.81	1.815774E+07	1.32362E+10
Std Error	10.7634		11062.34	7505918	6.663389E+09

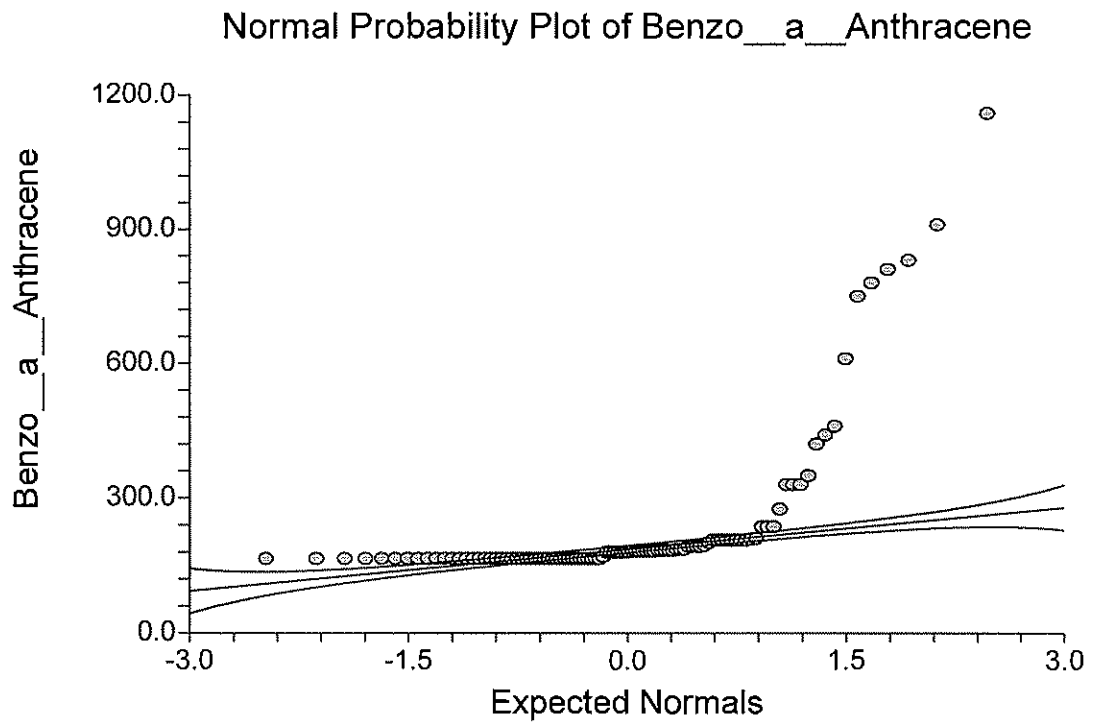
Quartile Section of Benzo(a)Anthracene

Parameter	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Value	165	165	180	206.5	413
95% LCL	165	165	165	192	235.5
95% UCL	165	165	183.5	235.5	780

Normality Test Section of Benzo(a)Anthracene

Test Name	Test Value	Prob Level	10% Critical Value	5% Critical Value	Decision (5%)
Shapiro-Wilk W	0.4665848	0.000000			Reject Normality
Anderson-Darling	21.57545	0.000000			Reject Normality
Martinez-Iglewicz	93.17912		1.051156	1.079641	Reject Normality
Kolmogorov-Smirnov	0.3865088		0.081	0.088	Reject Normality
D'Agostino Skewness	7.8147	0.000000	1.645	1.960	Reject Normality
D'Agostino Kurtosis	5.5175	0.000000	1.645	1.960	Reject Normality
D'Agostino Omnibus	91.5123	0.000000	4.605	5.991	Reject Normality

Plots Section of Benzo(a)Anthracene - Complete dataset



Attachment 3

Benzo(a)anthracene - Complete dataset. 95% UCL. Using H Statistic.

Data Value Avg.=	5.3343
Standard Dev =	0.4032
Number samples=	119
H statistic =	1.05
Sqr. Root of n-1 =	2.063369907
95% UCL =	276.103473

Benzo(a)anthracene - 95% UCL of detected data.

Number of samples		Uncensored values	
Uncensored	16	Mean	546.25
Censored		Lognormal mean	559.66
Detection limit or PQL		Std. devn.	296.06024
Method detection limit		Median	450
TOTAL	16	Min.	170
		Max.	1160

UCL (Land's method) is 781.252475850174

From: Kara Reynolds
To: mkovacich@geotransinc.com
Date: 10/7/03 2:29PM
Subject: Questions for Certification

Mike,

To answer one of your questions:

I do not need the QA/QC packages for the September 2002 soil sampling event.

I would rather have a Level IV package than the Level III package. Also, comment 23 lists things (such as but not limited to holding times, preservation and cooler receipt, etc.) that are not listed under any of the levels of QA/QC packages on the attachment that you sent. I don't know for sure if these are included in the lab packages, but I will need this information, too.

Please send the raw data along with the other QA/QC reports. I would rather the information be on disks. It is easier to handle that way.

I hope that answers your questions. If not, please let me know. As for the statistical evaluation, our statistician has not completed his review of the proposed procedure. As soon as I get any information, I will let you know. And sorry Tesha, I still have not heard anything about the GCN numbers.

Well, if you have any other questions, please let me know.

Thanks,

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: dbeck@geotransinc.com; Terpinski, Michael; thumphriss@geotransinc.com

From: Erik Hagen
To: Kara Reynolds
Date: 10/7/03 8:17AM
Subject: Re: Stats question

Kara,

I've read MDEQ's sampling and stat document before, but I've never used their stats program for calculating the 95% UCL. I went back to their internet site and re-read most of the document (before I started to fall asleep!). As a casual observation, it looks like it should be able to produce acceptable results. However, you know that its the assumptions that go with the stats that must also be evaluated when looking at statistical results. The assumptions that are made in MDEQ's program are not transparent (at least to me on a Tuesday morning).

I think the best approach to evaluate the results will be to ask the facility to provide the data set, in an electronic format, along with the output from the MDEQ program. We should evaluate:

1. The number of samples;
2. The sample locations and depths;
3. The number of non-detects (and how the facility treated non-detects);
4. The underlying data distribution (normal or log-normal); and
5. The presence of outliers

This is our normal evaluation procedure and it also reflects the MDEQ process. At this point, we can evaluate using our own programs whether the calculated 95% UCl would be the same or similar to what we ourselves would achieve. I know that this is more work, so you may choose to ignore my advice. I can also help you with the analysis or do the analysis for you if you choose. Y'all are lucky in NWDO in that you have a program called NCSS. It can do all the work for you with a minimal amount of effort. I know Ali has used the program, you may want to ask him to help you if your not familiar with it. I can also help you if you need some help with interpreting the results.

Let me know if you need more information or would like me to help you.

Erik

>>> Kara Reynolds 10/06/03 03:49PM >>>
Hello Erik,

I had a facility send me this link and ask if they could use this to calculate their UCLs. I was wondering if you had any experience with this site and what you thought about it. Mainly if this was ok to use to get UCLs or not. And if you haven't, what do I need to do to make sure it is ok. Any information you can give me will help.

Thanks a lot!!

Kara Reynolds

http://www.deq.state.mi.us/stats/

From: "David Beck" <dbeck@geotransinc.com>
To: <kara.reynolds@epa.state.oh.us>
Date: 10/3/03 9:11AM
Subject: Campbell Soup, Napoleon Former Holding Pit CertificationReport Statistics

Kara

Attached you will find the table (multiple tabs) which was used on the MDEQ statistic web site to calculate the UCL and distribution of select carcinogens. In addition, are the outputs of the distribution analysis for each compound in .gif format. The .pdf file is the output of the UCL analyses.

If you would like to go to the website to see how it works with actual data the address is http://www.deq.state.mi.us/stats/default.jsp. From this page just click the "Start" button. Next is a file upload page. To upload the data of interest the tab which contains it must be the first in line. Once you upload the file a page open confirming the data, just click the "Confirm Upload" button. The page that opens is where everything can be done. For the distributions, the individual compound tabs need to be used and the UCL (working) tab for the UCL calculations.

When doing anything with I(1,2,3-cd)P choose "Ideno(1" from the pull down. it doesn't like all the numbers and commas. If you have any questions on using the site please do not hesitate to give me call.

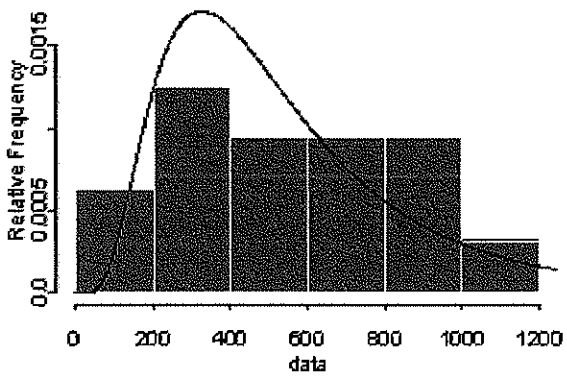
David R. Beck
Staff Hydrogeologist
GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108
PH: 734-213-5042
FX: 734-213-5008
dbeck@geotransinc.com

CC: "Michael Kovacich" <mkovacich@geotransinc.com>, "Tesha Humphriss" <thumphriss@geotransinc.com>

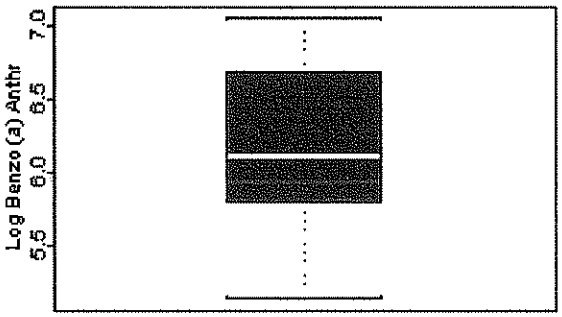
Lognormal Distribution Analysis for Benzo (a) Anthracene (ug/kg)

Data Set Name: B(a)A , Area: EU1

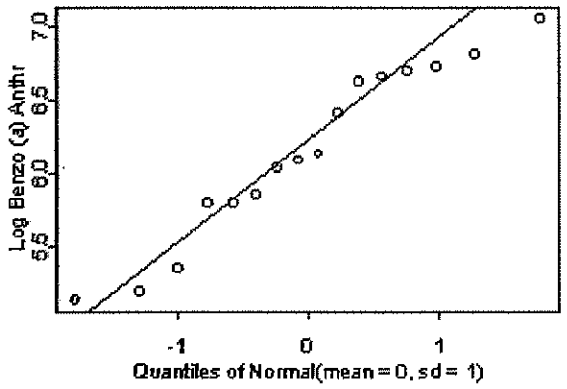
Histogram of Observed Data with Fitted Lognormal Distribution



Box Plot of Log Benzo (a) Anthr Data



Normal Probability Plot of Log Benzo (a) Anthr Data



Summary Statistics

Sample Size:	16
Coefficient of Variation:	0.0973538
Coefficient of Skewness:	-0.312857

Results of Shapiro-Wilk GOF

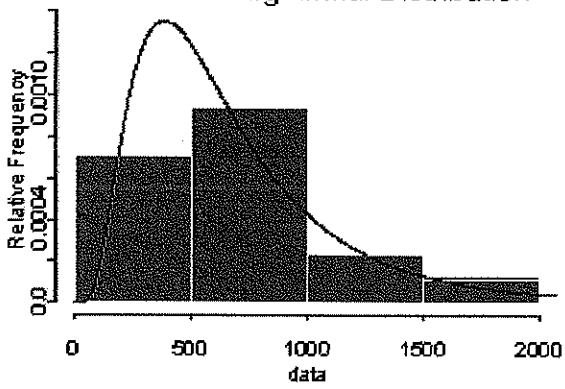
Hypothesized Distribution:	Lognormal
Estimated Parameters:	meanlog = 6.148196 sdlog = 0.5985502
Test Statistic:	W = 0.9413361
Test Statistic Parameter:	n = 16
p-value:	0.3657029

Since p >= .05 conclude distribution is lognormal.

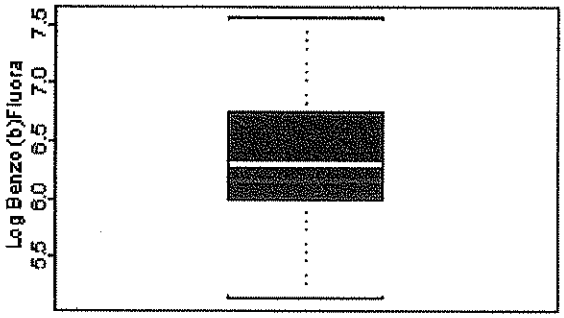
Lognormal Distribution Analysis for Benzo (b)Fluoranthene (ug/kg)

Data Set Name: B(b)F no ND , Area: EU1

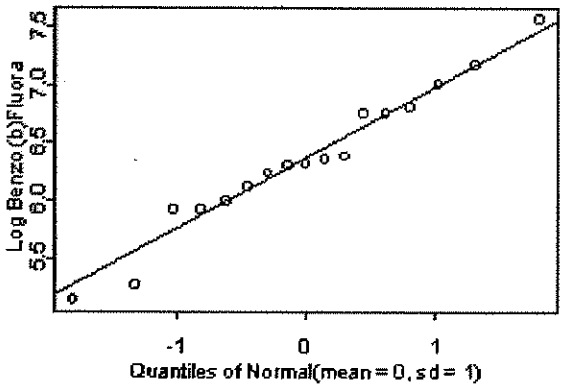
Histogram of Observed Data with Fitted Lognormal Distribution



Box Plot of Log Benzo (b)Fluora Data



Normal Probability Plot of Log Benzo (b)Fluora Data



Summary Statistics

Sample Size:	17
Coefficient of Variation:	0.0992254
Coefficient of Skewness:	-0.116448

Results of Shapiro-Wilk GOF

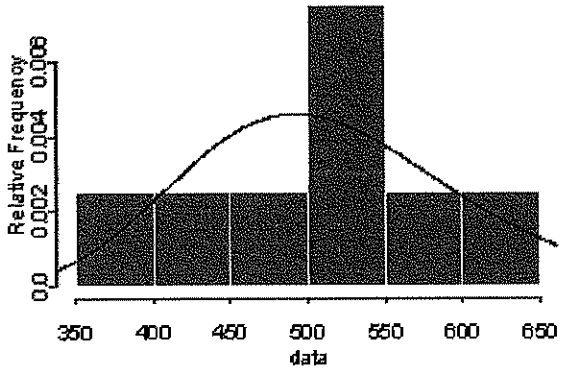
Hypothesized Distribution:	Lognormal
Estimated Parameters:	meanlog = 6.348492 sdlog = 0.6299317
Test Statistic:	W = 0.9721778
Test Statistic Parameter:	n = 17
p-value:	0.8553685

Since p >= .05 conclude distribution is lognormal.

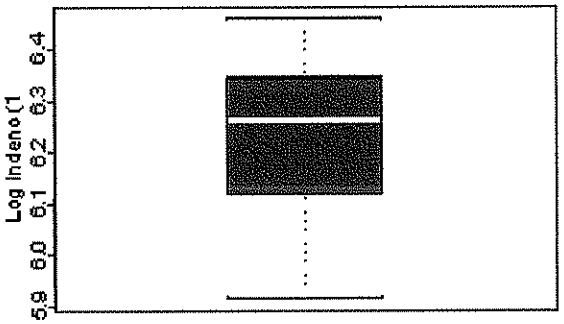
Lognormal Distribution Analysis for Indeno (1

Data Set Name: I(1 , Area: EU1

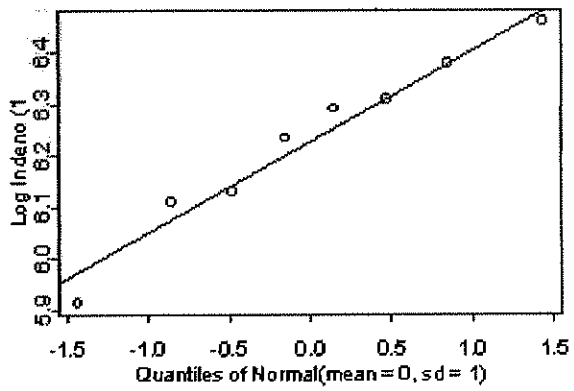
Histogram of Observed Data with Fitted Lognormal Distribution



Box Plot of Log Indeno (1 Data



Normal Probability Plot of Log Indeno (1 Data



Summary Statistics

Sample Size:	8
Coefficient of Variation:	0.0278601
Coefficient of Skewness:	-0.6277706

Results of Shapiro-Wilk GOF

Hypothesized Distribution:	Lognormal
Estimated Parameters:	meanlog = 6.228933 sdlog = 0.1735388
Test Statistic:	W = 0.9680974
Test Statistic Parameter:	n = 8
p-value:	0.8826738

Since p >= .05 conclude distribution is lognormal.

Upper Confidence Limit Analysis Results

UNLOAD

DISTRIBUTION

OUTLIER

UCL

BACKGROUND

Label	Value
Area:	EU1
Assumed Distribution:	Lognormal
Data:	Benzo (a) Anthracene
Sample Size:	119
Confidence Interval Method:	Land
Confidence Interval Type:	upper
Confidence Level:	95 %
Upper Confidence Limit for the Mean:	240.18

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Upper Confidence Limit Analysis Results

Label	Value
Area:	EU1
Assumed Distribution:	Lognormal
Data:	Benzo (b)Fluoranthene
Sample Size:	119
Confidence Interval Method:	Land
Confidence Interval Type:	upper
Confidence Level:	95 %
Upper Confidence Limit for the Mean:	261.07

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Upper Confidence Limit Analysis Results

Label	Value
Area:	EU1
Assumed Distribution:	Lognormal
Data:	Indeno (1
Sample Size:	119
Confidence Interval Method:	Land
Confidence Interval Type:	upper
Confidence Level:	95 %
Upper Confidence Limit for the Mean:	211.99

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Carcinogens Selected for Statistical Distribution and UCL Calculations

Campbell Soup Supply Company
Napoleon, Ohio

Location	Area	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b)Fluoranthene	Indeno (1,2,3-cd) Pyrene
FL-2	EU1	165	165	165	165
FL-8	EU1	165	165	165	165
FL-10	EU1	165	165	165	165
FL-13	EU1	165	165	165	165
FL-15	EU1	165	165	165	165
FL-18	EU1	165	165	165	165
FL-20	EU1	165	165	165	165
FL-22	EU1	165	165	165	165
FL-29	EU1	165	165	165	165
FL-35	EU1	165	165	165	165
SW-36	EU1	165	165	165	165
SW-38 (2)	EU1	165	165	165	165
SW-40	EU1	**330**	**380**	165	165
SW-41 (2)	EU1	165	165	165	165
SW-46 (4)	EU1	165	165	165	165
SW-46-6'	EU1	165	165	165	165
SW-49	EU1	330	330	330	330
SW-53	EU1	**350**	165	165	165
SW-54	EU1	165	165	165	165
VR-02-01	EU1	165	165	**570**	165
VR-02-01(2) Split BA	EU1	**330**	165	165	165
VR-02-01(2) Split BEC	EU1	165	165	165	165
VR-02-02	EU1	**180**	165	**193**	165
VR-02-03	EU1	**610**	**480**	**590**	**370**
VR-03-06	EU1	**810**	**350**	**850**	**550**
VR-03-08	EU1	**420**	**350**	**510**	165
VR-03-09	EU1	**780**	**920**	**900**	**510**
VR-03-09 unscreened	EU1	**165**	**165**	**400**	165
VR-03-10	EU1	**750**	**630**	**850**	**460**
VR-03-11	EU1	**910**	**740**	**1100**	**540**

Carcinogens Selected for Statistical Distribution and UCL Calculations

Campbell Soup Supply Company
Napoleon, Ohio

Location	Area	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b)Fluoranthene	Indeno (1,2,3-cd) Pyrene
VR-03-12	EU1	**460**	**370**	**550**	165
VR-03-13	EU1	**830**	**660**	**1300**	**640**
VR-03-14	EU1	**440**	**370**	**540**	**450**
CS-02-01	EU1	165	165	165	165
CS-02-02	EU1	**170**	165	165	165
CS-02-03	EU1	**210**	165	450	165
CS-02-04	EU1	165	165	165	165
CS-02-05	EU1	165	165	165	165
CS-02-06	EU1	165	165	165	165
CS-02-07	EU1	165	165	165	165
CS-02-08	EU1	165	165	**370**	165
CS-02-09	EU1	**1,160**	**1,080**	**1,940**	**590**
CS-02-10	EU1	165	165	165	165
CS-02-11	EU1	165	165	**170**	165
CS-02-12	EU1	165	165	165	165
CS-02-13	EU1	165	165	165	165
CS-02-14	EU1	165	**180**	**370**	165
CS-02-15	EU1	165	165	165	165
CS-02-16	EU1	165	165	165	165
CS-02-17	EU1	165	165	165	165
IS-02-01	EU1	165	165	165	165
IS-02-02	EU1	165	165	165	165
IS-02-03	EU1	165	165	165	165
PB-01	EU1	183.5	183.5	183.5	183.5
PB-01	EU1	165	165	165	165
PB-01	EU1	183.5	183.5	183.5	183.5
PB-15	EU1	181.5	181.5	181.5	181.5
PB-15	EU1	185.5	185.5	185.5	185.5
PB-01-23	EU1	235.5	235.5	235.5	235.5
PB-01-23	EU1	206.5	206.5	206.5	206.5

Carcinogens Selected for Statistical Distribution and UCL Calculations

Campbell Soup Supply Company
Napoleon, Ohio

Location	Area	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b)Fluoranthene	Indeno (1,2,3-cd) Pyrene
PB-01-25	EU1	206.5	206.5	206.5	206.5
PB-01-25	EU1	179.5	179.5	179.5	179.5
PB-01-25	EU1	235.5	235.5	235.5	235.5
PB-01-25	EU1	179.5	179.5	179.5	179.5
PB-01-27	EU1	206.5	206.5	206.5	206.5
PB-01-27	EU1	235.5	235.5	235.5	235.5
PB-01-28	EU1	183.5	183.5	183.5	183.5
PB-01-28	EU1	206.5	206.5	206.5	206.5
PB-01-28	EU1	206.5	206.5	206.5	206.5
PB-01-29	EU1	206.5	206.5	206.5	206.5
PB-01-29	EU1	206.5	206.5	206.5	206.5
PB-01-31	EU1	206.5	206.5	206.5	206.5
PB-01-31	EU1	275	275	275	275
PB-01-31	EU1	209	209	209	209
PB-01-32	EU1	181.5	181.5	181.5	181.5
PB-01-32	EU1	180	180	180	180
PB-01-34	EU1	181.5	181.5	181.5	181.5
PB-01-34	EU1	165	165	165	165
PB-01-35	EU1	165	165	165	165
PB-01-35	EU1	181.5	181.5	181.5	181.5
PB-01-36	EU1	179.5	179.5	179.5	179.5
PB-01-36	EU1	165	165	165	165
PB-01-36	EU1	179.5	179.5	179.5	179.5
PB-01-37	EU1	181.5	181.5	181.5	181.5
PB-01-37	EU1	201	201	201	201
PB-01-37	EU1	192	192	192	192
PB-01-38	EU1	165	165	165	165
PB-01-38	EU1	179.5	179.5	179.5	179.5
PB-01-38	EU1	181.5	181.5	181.5	181.5
PB-01-39	EU1	181.5	181.5	181.5	181.5

Carcinogens Selected for Statistical Distribution and UCL Calculations

Campbell Soup Supply Company

Napoleon, Ohio

Location	Area	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b)Fluoranthene	Indeno (1,2,3-cd) Pyrene
PB-01-39	EU1	192	192	192	192
PB-01-39	EU1	194	194	194	194
PB-01-40	EU1	183.5	183.5	183.5	183.5
PB-01-40	EU1	165	165	165	165
PB-01-40	EU1	192	192	192	192
PB-01-41	EU1	183.5	183.5	183.5	183.5
PB-01-41	EU1	185.5	185.5	185.5	185.5
PB-01-42	EU1	192	192	192	192
PB-01-42	EU1	165	165	165	165
PB-01-43	EU1	185.5	185.5	185.5	185.5
PB-01-44	EU1	185.5	185.5	185.5	185.5
PB-01-45	EU1	220	220	220	220
PB-01-45	EU1	177.5	177.5	177.5	177.5
PB-01-46	EU1	206.5	206.5	206.5	206.5
PB-01-46	EU1	194	194	194	194
PB-01-46	EU1	183.5	183.5	183.5	183.5
PB-01-46	EU1	189.5	189.5	189.5	189.5
PB-01-47	EU1	179.5	179.5	179.5	179.5
PB-01-47	EU1	192	192	192	192
PB-01-47	EU1	201	201	201	201
PB-01-48	EU1	203.5	203.5	203.5	203.5
PB-01-48	EU1	220	220	220	220
PB-01-49	EU1	235.5	235.5	235.5	235.5
PB-01-49	EU1	206.5	206.5	206.5	206.5
PB-01-49	EU1	206.5	206.5	206.5	206.5
PB-01-50	EU1	165	165	165	165
PB-01-50	EU1	165	165	165	165
PB-01-50	EU1	183.5	183.5	183.5	183.5
PB-01-50	EU1	206.5	206.5	206.5	206.5

Location	Area	Chloroform (ug/kg)
CS-02-02	EU1	145
CS-02-03	EU1	65
CS-02-04	EU1	46
CS-02-06	EU1	64
CS-02-07	EU1	22
CS-02-09	EU1	37
CS-02-10	EU1	18
CS-02-11	EU1	6
CS-02-12	EU1	4
CS-02-13	EU1	3
CS-02-14	EU1	4
CS-02-15	EU1	7
CS-02-16	EU1	4
CS-02-17	EU1	4
IS-02-01	EU1	13
PB-01-36	EU1	56
PB-01-38	EU1	52
PB-01-50	EU1	*44*

Location	Area	Indeno (1,2,3-cd) Pyrene (ug/kg)
VR-02-03	EU1	370
VR-03-06	EU1	550
VR-03-09	EU1	510
VR-03-10	EU1	460
VR-03-11	EU1	540
VR-03-13	EU1	640
VR-03-14	EU1	450
CS-02-09	EU1	590

Location	Area	Benzo (a) Anthracene (ug/kg)
SW-40	EU1	330
SW-53	EU1	350
VR-02-01(2) Split BA	EU1	330
VR-02-02	EU1	180
VR-02-03	EU1	610
VR-03-06	EU1	810
VR-03-08	EU1	420
VR-03-09	EU1	780
VR-03-10	EU1	750
VR-03-11	EU1	910
VR-03-12	EU1	460
VR-03-13	EU1	830
VR-03-14	EU1	440
CS-02-02	EU1	170
CS-02-03	EU1	210
CS-02-09	EU1	1,160

Location	Area	Benzo (b)Fluoranthene (ug/kg)
VR-02-01	EU1	570
VR-02-02	EU1	193
VR-02-03	EU1	590
VR-03-06	EU1	850
VR-03-08	EU1	510
VR-03-09	EU1	900
VR-03-09 unscreened	EU1	400
VR-03-10	EU1	850
VR-03-11	EU1	1100
VR-03-12	EU1	550
VR-03-13	EU1	1300
VR-03-14	EU1	540
CS-02-03	EU1	450
CS-02-08	EU1	370
CS-02-09	EU1	1,940
CS-02-11	EU1	170
CS-02-14	EU1	370

Location	Area	Benzo (a) Pyrene (ug/Kg)
SW-40	EU1	380
VR-02-03	EU1	480
VR-03-06	EU1	350
VR-03-08	EU1	350
VR-03-09	EU1	920
VR-03-10	EU1	630
VR-03-11	EU1	740
VR-03-12	EU1	370
VR-03-13	EU1	660
VR-03-14	EU1	370
CS-02-09	EU1	1,080
CS-02-14	EU1	180

Carcinogens Selected for Statistical Distribution and UCL Calculations

Campbell Soup Supply Company

Napoleon, Ohio

Location	Area	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b)Fluoranthene	Indeno (1,2,3-cd) Pyrene
FL-2	EU1	165	165	165	165
FL-8	EU1	165	165	165	165
FL-10	EU1	165	165	165	165
FL-13	EU1	165	165	165	165
FL-15	EU1	165	165	165	165
FL-18	EU1	165	165	165	165
FL-20	EU1	165	165	165	165
FL-22	EU1	165	165	165	165
FL-29	EU1	165	165	165	165
FL-35	EU1	165	165	165	165
SW-36	EU1	165	165	165	165
SW-38 (2)	EU1	165	165	165	165
SW-40	EU1	**330**	**380**	165	165
SW-41 (2)	EU1	165	165	165	165
SW-46 (4)	EU1	165	165	165	165
SW-46-6'	EU1	165	165	165	165
SW-49	EU1	330	330	330	330
SW-53	EU1	**350**	165	165	165
SW-54	EU1	165	165	165	165
VR-02-01	EU1	165	165	**570**	165
VR-02-01(2) Split BA	EU1	**330**	165	165	165
VR-02-01(2) Split BEC	EU1	165	165	165	165
VR-02-02	EU1	**180**	165	**193**	165
VR-02-03	EU1	**610**	**480**	**590**	**370**
VR-03-06	EU1	**810**	**350**	**850**	**550**
VR-03-08	EU1	**420**	**350**	**510**	165
VR-03-09	EU1	**780**	**920**	**900**	**510**
VR-03-09 unscreened	EU1	**165**	**165**	**400**	165
VR-03-10	EU1	**750**	**630**	**850**	**460**
VR-03-11	EU1	**910**	**740**	**1100**	**540**

Note:

Bolded values are greater than the reported method detection limit. All others are one-half the reported method detection limit.

Carcinogens Selected for Statistical Distribution and UCL Calculations

Campbell Soup Supply Company
Napoleon, Ohio

Location	Area	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b)Fluoranthene	Indeno (1,2,3-cd) Pyrene
VR-03-12	EU1	**460**	**370**	**550**	165
VR-03-13	EU1	**830**	**660**	**1300**	**640**
VR-03-14	EU1	**440**	**370**	**540**	**450**
CS-02-01	EU1	165	165	165	165
CS-02-02	EU1	**170**	165	165	165
CS-02-03	EU1	**210**	165	450	165
CS-02-04	EU1	165	165	165	165
CS-02-05	EU1	165	165	165	165
CS-02-06	EU1	165	165	165	165
CS-02-07	EU1	165	165	165	165
CS-02-08	EU1	165	165	**370**	165
CS-02-09	EU1	**1,160**	**1,080**	**1,940**	**590**
CS-02-10	EU1	165	165	165	165
CS-02-11	EU1	165	165	**170**	165
CS-02-12	EU1	165	165	165	165
CS-02-13	EU1	165	165	165	165
CS-02-14	EU1	165	**180**	**370**	165
CS-02-15	EU1	165	165	165	165
CS-02-16	EU1	165	165	165	165
CS-02-17	EU1	165	165	165	165
IS-02-01	EU1	165	165	165	165
IS-02-02	EU1	165	165	165	165
IS-02-03	EU1	165	165	165	165
PB-01	EU1	183.5	183.5	183.5	183.5
PB-01	EU1	165	165	165	165
PB-01	EU1	183.5	183.5	183.5	183.5
PB-15	EU1	181.5	181.5	181.5	181.5
PB-15	EU1	185.5	185.5	185.5	185.5
PB-01-23	EU1	235.5	235.5	235.5	235.5
PB-01-23	EU1	206.5	206.5	206.5	206.5

Note:
Bolded values are greater than the reported method detection limit. All others are one-half the reported method detection limit.

Carcinogens Selected for Statistical Distribution and UCL Calculations

Campbell Soup Supply Company
Napoleon, Ohio

Location	Area	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b)Fluoranthene	Indeno (1,2,3-cd) Pyrene
PB-01-25	EU1	206.5	206.5	206.5	206.5
PB-01-25	EU1	179.5	179.5	179.5	179.5
PB-01-25	EU1	235.5	235.5	235.5	235.5
PB-01-25	EU1	179.5	179.5	179.5	179.5
PB-01-27	EU1	206.5	206.5	206.5	206.5
PB-01-27	EU1	235.5	235.5	235.5	235.5
PB-01-28	EU1	183.5	183.5	183.5	183.5
PB-01-28	EU1	206.5	206.5	206.5	206.5
PB-01-28	EU1	206.5	206.5	206.5	206.5
PB-01-29	EU1	206.5	206.5	206.5	206.5
PB-01-29	EU1	206.5	206.5	206.5	206.5
PB-01-31	EU1	206.5	206.5	206.5	206.5
PB-01-31	EU1	275	275	275	275
PB-01-31	EU1	209	209	209	209
PB-01-32	EU1	181.5	181.5	181.5	181.5
PB-01-32	EU1	180	180	180	180
PB-01-34	EU1	181.5	181.5	181.5	181.5
PB-01-34	EU1	165	165	165	165
PB-01-35	EU1	165	165	165	165
PB-01-35	EU1	181.5	181.5	181.5	181.5
PB-01-36	EU1	179.5	179.5	179.5	179.5
PB-01-36	EU1	165	165	165	165
PB-01-36	EU1	179.5	179.5	179.5	179.5
PB-01-37	EU1	181.5	181.5	181.5	181.5
PB-01-37	EU1	201	201	201	201
PB-01-37	EU1	192	192	192	192
PB-01-38	EU1	165	165	165	165
PB-01-38	EU1	179.5	179.5	179.5	179.5
PB-01-38	EU1	181.5	181.5	181.5	181.5
PB-01-39	EU1	181.5	181.5	181.5	181.5

Note:
Bolded values are greater than the reported method detection limit. All others are one-half the reported method detection limit.

Carcinogens Selected for Statistical Distribution and UCL Calculations

Campbell Soup Supply Company
Napoleon, Ohio

Location	Area	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b)Fluoranthene	Indeno (1,2,3-cd) Pyrene
PB-01-39	EU1	192	192	192	192
PB-01-39	EU1	194	194	194	194
PB-01-40	EU1	183.5	183.5	183.5	183.5
PB-01-40	EU1	165	165	165	165
PB-01-40	EU1	192	192	192	192
PB-01-41	EU1	183.5	183.5	183.5	183.5
PB-01-41	EU1	185.5	185.5	185.5	185.5
PB-01-42	EU1	192	192	192	192
PB-01-42	EU1	165	165	165	165
PB-01-43	EU1	185.5	185.5	185.5	185.5
PB-01-44	EU1	185.5	185.5	185.5	185.5
PB-01-45	EU1	220	220	220	220
PB-01-45	EU1	177.5	177.5	177.5	177.5
PB-01-46	EU1	206.5	206.5	206.5	206.5
PB-01-46	EU1	194	194	194	194
PB-01-46	EU1	183.5	183.5	183.5	183.5
PB-01-46	EU1	189.5	189.5	189.5	189.5
PB-01-47	EU1	179.5	179.5	179.5	179.5
PB-01-47	EU1	192	192	192	192
PB-01-47	EU1	201	201	201	201
PB-01-48	EU1	203.5	203.5	203.5	203.5
PB-01-48	EU1	220	220	220	220
PB-01-49	EU1	235.5	235.5	235.5	235.5
PB-01-49	EU1	206.5	206.5	206.5	206.5
PB-01-49	EU1	206.5	206.5	206.5	206.5
PB-01-50	EU1	165	165	165	165
PB-01-50	EU1	165	165	165	165
PB-01-50	EU1	183.5	183.5	183.5	183.5
PB-01-50	EU1	206.5	206.5	206.5	206.5

Note:
Bolded values are greater than the reported method detection limit. All others are one-half the reported method detection limit.

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 10/1/03 4:54PM
Subject: Campbell's Questions

Kara,

We would like clarification on 2 issues for the Revised Certification Report:

1) Laboratory QA/QC packages:

We are including QA/QC packages for both labs used during remediation activities (Brighton Analytical and BEC). Should we include QA/QC packages for the September 2002 soil sampling event?

We are having an independent party complete a laboratory validation report by filling out the Ohio EPA Tier I Checklist. Our lab contact and sub consultant suggest that Level III and Level IV on the attached PDF file (laboratory QA/QC) list best represents the level of QA/QC requested in Comment 23 of the Notice of Deficiency. Please review the attached file and let us know if Level III plus a case narrative meets your requirements.

Brighton Analytical has nearly completed their QA/QC package. They have explained that the paper file generated will be nearly 1 foot tall when single sided. They explained to me that in order to meet the requirements listed in Comment 23 of the notice of deficiency they will have to provide the raw data even though you did not specifically request it. We plan to scan both lab packages and include a compact disk(s) with the Revised Certification Report. Will this suffice?

2) Statistical Evaluation

We wanted to verify with you the following process. We plan to complete a statistical evaluation (i.e. determining if the data is normally distributed) for all parameters in which an UCL, instead of a maximum concentration, is used in the risk assessment. Normal or log-normal distribution will be determined from only the samples with detections (for example, ~120 samples are now being used in the risk assessment. For benzo(a)pyrene there were 15 detections above the MDL out of the ~120 samples. We determined the 15 samples with detections were log- normally distributed.) After determination of normal or log-normal distribution we will reintroduce the non-detect values at ½ the MDL and run the appropriate UCL calculation. We plan to the use the statistical software available on the Michigan Department of Environmental Quality's web page, which can be found at http://www.michigan.gov/deq/0,1607,7-135-3311_4109_9846---,00.html , bottom of the page under Part 201 StatSoft. This software will be used to determine normal or log-normal distribution and to calculate the UCL. Is this process acceptable to the Ohio EPA?

Please respond at your earliest convenience.

Thanks,

CC: <osman_aly@campbellsoup.com>, "Tesha Humphriss" <thumphriss@geotransinc.com>, <o.aly@worldnet.att.net>

Exhibit II – Quality Control Deliverable Formats

Level I Analytical Results	*Level II* *Analytical Results*	Level III Analytical Results	Level IV Analytical Results
Surrogate Recoveries, where appropriate	Surrogate Recoveries, where appropriate	Surrogate Recoveries, where appropriate	Surrogate Recoveries, where appropriate
Chain-of-Custody	Chain-of-Custody	Chain-of-Custody	Chain-of-Custody
	Method Blank	Method Blank	Method Blank
	Laboratory Control Sample (LCS) Summary	Laboratory Control Sample (LCS) Summary	Laboratory Control Sample (LCS) Summary
	Laboratory Control Sample Duplicate (LCSD) Summary, where appropriate	Laboratory Control Sample Duplicate (LCSD) Summary, where appropriate	Laboratory Control Sample Duplicate (LCSD) Summary, where appropriate
	Matrix Spike (MS) Summary	Matrix Spike (MS) Summary	Matrix Spike (MS) Summary
	Matrix Spike Duplicate (MSD) Summary, where appropriate	Matrix Spike Duplicate (MSD) Summary, where appropriate	Matrix Spike Duplicate (MSD) Summary, where appropriate
	Replicate/Duplicate, where appropriate	Replicate/Duplicate, where appropriate	Replicate/Duplicate, where appropriate
		GS/MS Tune	GS/MS Tune
		Initial Calibration	Initial Calibration
		Continuing Calibration Verification (CCV)	Continuing Calibration Verification (CCV)
			Case Narrative
			Raw Data - including but not limited to instrument logs, data sheets, chromatograms, spectra, extraction logs, digestion logs, and instrument sequences

Costs for deliverables are developed in consultation, and are dependent upon project size and scope.

Kara Reynolds - lab QAQC levels.pdf

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MINIMUM RECYCLED CONTENT
10% POST-CONSUMER

Campbell Soup

GeoTrans, Inc.
A TETRA TECH COMPANY

LETTER OF TRANSMITTAL

710 Avis Drive, Ann Arbor, MI 48108 • (734) 213-2204 • (734) 213-5008 (FAX)

Date: February 23, 2004

RECEIVED
FEB 24 2004
OHIO E.P.A.
N.W.D.O.

To: Ms. Kara Reynolds
Ohio Environmental Protection Agency
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, OH 43402

Transmitted By:

☐ First Class Mail ☑ Federal Express ☐ Courier

☐ Registered Mail ☐ UPS ☐ Other_____

Job #: 4603.003.06

Re: Campbell Soup Napoleon Site

We are enclosing: Revised Sampling and Analysis Plan

Remarks: Regarding the former holding pit at the Campbell Soup Site in Napoleon, Ohio, enclosed are three (3) copies of the Revised Sampling and Analysis Plan (SAP). The SAP has been revised to address the comments in your February 19, 2004, correspondence. Please call me at (734) 213 – 5024 with any questions or concerns.

copy: Dr. Osman Aly, Campbell

By: Michael Kovacich

P:\Forms\Transmittal.doc
Rev. 09/24/02

This document can be found
in the
NWDO DHWM Facility Document
Library

Campbell's Soup

OhioEPA
State of Ohio Environmental Protection Agency

RECEIVED
AUG 12 2004
OHIO E.P.A.
N.W.D.O.

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

AUG 03 2004

Ms. Jo Anne Osborn
JP Trust Company, N.A.
One Oxford Center
301 Grant Street, Suite 1100
Pittsburgh, Pennsylvania 15219

Re: Campbell Soup Supply Company - Napoleon, OH
Release LOC Nos. P-226893, P-226892 and Standby Trust Funds

Dear Ms. Osborn:

The JP Trust Company, NA established Standby Letters of Credit (LOC) Nos. P-226893, P-226892 and Standby Trust Agreements to demonstrate the Campbell Soup Supply Company's (CSC) compliance with the hazardous waste financial assurance and third party liability requirements for the Napoleon, Ohio facility.

The CSC has since closed the Napoleon, Ohio facility and is no longer subject to financial assurance and liability requirements. I am, therefore, returning LOC Nos. P -226893 and P-226892 and both Trust agreements dated June 15, 2002 to you for termination pursuant to Ohio Administrative Code Rule 3745-66-43 (C)(9)(a).

Please feel free to contact Tina Jennings of the Division of Hazardous Waste Management with any questions you may have. Her telephone number is (614) 644-2951.

Sincerely,

Christopher Jones
Director

g:\tjennings\tj04\Campbell Soup July 2004

cc: Michael Terpinski, NWDO-DHWM

Bob Taft, Governor
Jennette Bradley, Lieutenant Governor
Christopher Jones, Director

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Ohio EPA is an Equal Opportunity Employer

Henry Co
"Campbell
Soup 2004"

From: Don North
To: Smith, Jeanette
Subject: Re: Campbell Soup

I looked over their July 27, 2004, letter/package regarding termination of the F&Os. Looks ok. Not aware of any other issues.

>>> Jeanette Smith 08/19/04 02:14PM >>>
Hi, we had some rain late last night (AM). Need the rain though. Did it rain up your way?

I didn't know that you were assigned to CSC (ID # 005 419 171) so I talked to Mike T. Since I verified that they paid the civil penalty ($80K) & Mike issued a Final Closure Letter we agreed that CSC had satisfied the F&Os & that they should be terminated.

Do you know of any outstanding issues? Please let me know ASAP B/C the orders termination letter is in sign-off.

>>> Don North 08/19/04 12:35PM >>>
Hi Jeanette,

I should be able to look over the letter from Campbells by Tuesday AM. Hope you're staying dry.

Henry Co
"Campbell
Soup 2004"

Campbell Soup Company

WORLD HEADQUARTERS
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

July 26, 2004

RECEIVED
JUL 27 2004
OHIO E.P.A.
N.W.D.O.

Via Airborne Express

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
ATTN: DHWM Manager
3478 North Dunbridge Road
Bowling Green, OH 43402

And

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
ATTN: Manager, Compliance Assurance Section
122 South Front Street
Columbus, OH 43215

RE: Director's Final Finding and Orders of October 18, 2000 and
Amendment of August 22, 2001
Campbell Soup Supply Company, Napoleon, Ohio
Former Holding Pit – OH 005 419 171

- Notice of Satisfaction of All Obligations
- Request for Termination of the Orders

Gentlemen:

Pursuant to Section VI. Termination of the above Orders, this letter is to inform you that Campbell Soup Company and Campbell Soup Supply Company L.L.C. (Campbell) have performed and satisfied all the obligations under these Orders and believe that the Orders can be terminated. The required certification is attached to this letter.

The following is a demonstration that all the obligations under these Orders have been performed:

A. Ohio EPA issued a Final Closure Letter for Non-Permitted Facilities dated June 11, 2004 (copy attached) indicating that Campbell had closed the former holding pit according to the approved closure plan and Ohio Administrative Code (OAC) rules 3745-66-11 through 3745-66-15. The letter also indicated that Campbell is no longer subject to the financial assurance requirements for closure or liability coverage.

B. The following is the demonstration that Campbell performed each of the Orders in Section V:

Order #	Comments
1.	Closure of the pit proceeded as directed. A site closure investigation work report dated November 2, 2000 was submitted to Ohio EPA as required (copy attached in Appendix 1).
2.	Ohio EPA received the closure investigation report and outlined deficiencies in a letter dated April 3, 2001 (copy attached in Appendix 2). Because of the time delay Campbell requested withdrawal of the submitted plan and requested a 90-day delay for submittal of a revised closure plan (copy attached in Appendix 2). Ohio EPA subsequently amended the Orders effective August 22, 2001. Campbell submitted a revised closure plan as directed dated October 29, 2001. Ohio EPA issued a "Notice of Deficiency – Closure Plan" dated April 23, 2002. A revised closure plan was submitted in a letter dated May 23, 2002 (copy attached in Appendix 2).
3.	Ohio EPA approved the revised closure plan in a letter dated August 1, 2002 (copy attached in Appendix 3). Campbell subsequently proceeded with the implementation of the approved closure plan pursuant to the specifications and schedules contained in the plan. Campbell requested minor modification to the site closure plan in a letter dated March 6, 2003 (copy attached in Appendix 3). Ohio EPA approved the minor change to the approved closure plan in a letter dated March 11, 2003 (copy attached in Appendix 3).
4.	Campbell completed the scheduled closure activities and submitted a site closure certification reported dated July 3, 2003 (copy attached in Appendix 4). Ohio EPA issued a Notice of Deficiency for the certification report in a letter dated September 4, 2003 (copy attached in Appendix 4), and a second letter dated September 16, 2003 granting an extension to the Certification revision period (copy attached in Appendix 4).

On December 18, 2004, Ohio EPA issued a letter giving Campbell three options for determination of the appropriate exposure and risk (copy attached in Appendix 4). Campbell chose one of the options as outlined in a letter to Ohio EPA dated January 6, 2004 (copy attached in Appendix 4), and implemented that option and submitted a site closure sampling and analysis plan in a letter dated February 2, 2004. Ohio EPA requested revision of the sampling plan in a letter dated February 19, 2004 (copy attached in Appendix 4). A revised sampling and analysis plan was subsequently submitted on February 24, 2004. Ohio EPA approved the revised sampling and analysis plan in a letter dated March 5, 2004 (copy attached in Appendix 4).

The soil sampling analytical results were submitted to Ohio EPA in a letter dated April 2, 2004. Ohio EPA reviewed the analytical results and agreed with the conclusions and requested a revised certification document in a letter dated April 21, 2004 (copy attached in Appendix 4).

Campbell submitted a revised Certification report as required, in a letter dated May 19, 2004 (copy attached in Appendix 4).

A Final Closure Letter for Non-Permitted Facilities was issued by Ohio EPA in a letter dated June 11, 2004 (copy attached) indicating, as outlined in Section A above, that Campbell closed the former pit as required by the Orders.

5. Campbell submitted to Ohio EPA in a letter dated July 18, 2004 as required, a closure cost estimate and documentation demonstrating the establishment of financial assurance and liability coverage for closure in accordance with OAC rules 3745-55-42/3745-66-42 through 3745-55-47/3745-66-47 (copy attached in Appendix 5).

6. Campbell paid to Ohio EPA the amount of $80,000 in settlement of Ohio EPA's closure for civil penalties. The payment was made by sending a certified check as required. A copy of the transmittal letter with the certified check is attached in Appendix 6.

We would appreciate your approval and termination of these Orders at your earliest convenience. Please contact me at (856) 968-4423 if any additional information is needed.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

- Notice of Satisfaction of All Obligations
- Request for Termination of the Orders

OMA/lgm
Attachments

cc: C. M. del Sol
F. Greenfield (with attachments)
R. Shober

Campbell SOUP Company

WORLD HEADQUARTERS
Camden, New Jersey 08103-1799

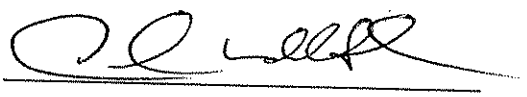
CERTIFICATION OF CAMPBELL SOUP COMPANY

(Termination of the Directors Final Findings and Orders October 18, 2000 and Amendment of August 22, 2001 Former Holding Pit – Napoleon, Ohio)

"I certify that the information contained in or accompanying this certification is true, accurate and complete."

CAMPBELL SOUP COMPANY

C. M. del Sol
Name



Signature

Vice President – Global Engineering Systems
Title

July 26, 2004
Date

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

June 11, 2004

CERTIFIED MAIL

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Final Closure Letter for Non-Permitted Facilities
Campbell Soup Supply Company, Napoleon
OHD 005 419 171

Dear Dr. Aly:

On August 1, 2002, Ohio EPA approved the closure plan for the former hazardous waste holding pit located at Campbell Soup Supply Company, 1273 State Route 110, Napoleon, Ohio, 43545.

On May 20, 2004, May 25, 2004, and June 1, 2004, the director received final certification documents from Dr. Osman M. Aly, Environmental Coordinator for Campbell Soup Company. C. M. Del Sol and Daniel L. Morgan certified that the former holding pit has been closed according to the specifications in the approved closure plan. The type of closure was clean closure via risk assessment.

To verify Campbell Soup Supply Company's closure activities, Kara Reynolds from Ohio EPA's Northwest District Office, conducted a final inspection of the former holding pit on June 9, 2004. She also reviewed documents pertaining to the closure of the unit and determined that the activities proposed in the closure plan were conducted adequately.

Based on this inspection and review, Ohio EPA has determined that Campbell Soup Supply Company has closed the former holding pit according to the approved closure plan and Ohio Administrative Code (OAC) rules 3745-66-11 through 3745-66-15.

Although Campbell Soup Supply Company has satisfied its closure obligations under Ohio's hazardous waste laws for the former holding pit, Campbell Soup Supply Company is still required to investigate and possibly clean up contamination of hazardous waste or constituents at the facility, despite the time at which the waste was placed in the unit. This obligation to investigate and possibly clean up contamination from past activities is also known as RCRA Corrective Action.

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Our records show that Campbell Soup Supply Company used a letter of credit to demonstrate compliance with the state's hazardous waste financial assurance requirements for closure and liability coverage. Because there are no other units at the facility that require closure, Campbell Soup Supply Company is no longer subject to the financial assurance requirements for closure or liability coverage. However, the director will issue a separate letter releasing the financial assurance mechanism.

There are no other units at this facility that require closure. Campbell Soup Supply Company will maintain the status of conditionally exempt small quantity generator of hazardous waste.

If you have any questions concerning the closure process or the status of the facility, please contact Kara Reynolds by phone at (419) 373-3065, or by mailing address at Ohio EPA, Northwest District Office, Attn: Kara Reynolds, 347 North Dunbridge Road, Bowling Green, Ohio 43402.

Sincerely,

Michael Terpinski
Environmental Supervisor
Division of Hazardous Waste Management

/llr

pc: Pamela Allen, Manager, RISS, CO,
Ed Lim, Manager, ERAS, CO,
Harry Sarvis, Manager, CAS, CO,
Harriet Croke, U.S. EPA - Region V
Michael Terpinski, NWDO, Ohio EPA
Don North, DHWM-NWDO
Kara Reynolds, DHWM- NWDO
NWDO, DHWM File "Campbell Soup Company, 2004"
Michael Maringer, Campbell Soup Supply Company

ec: Jeremy Carroll, Supervisor, ERAS,
Stephanie Beak, Supervisor, ERAS
Erik Hagen, ERAS
Jeff Patzke, DDAGW, CO
John Weaver, DDAGW-NWDO
Michael Kovacich, Geo Trans, Inc., Ann Arbor
Tesha Yielding, Geo Trans, Inc., Ann Arbor
Eric Getz, DHWM-NWDO

- Notice of Satisfaction of All Obligations
- Request for Termination of the Orders

APPENDIX 1

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Director – Environmental Affairs

Telephone#: 856-968-4423
Fax#: 856-968-2808/2809

November 2, 2000

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager
347 North Dunbridge Road
Bowling Green, OH 43402

and

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

Re: Director's Final Findings and Orders
Campbell Soup Supply Company L.L.C.
Campbell Soup Company

Gentlemen:

Enclosed please find a report entitled "RCRA Site Closure Investigation Work Plan – Former Holding Pit Area" related to Campbell Soup Supply Company facility at Napoleon, Ohio.

The Closure Work Plan is submitted in compliance with the above referenced Order dated October 18, 2000 for your review and approval.

Please give me a call at 856-968-4423 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

Osman. M. Aly, Ph.D.
Director – Environmental Affairs

OMA/dp

cc: F. Greenfield
M. Maringer
C. del Sol

att.

- Notice of Satisfaction of All Obligations
- Request for Termination of the Orders

APPENDIX 2

OhioEPA
State of Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461 **FAX** (419) 352-8468

Bob Taft
Governor

Re: Henry County
Campbell's Soup Company
OHD 005419171
Hazardous Waste

April 3, 2001

Mr. Michael Maringer
Manager, Service and Utilities
Campbell's Soup Company
East Maumee Avenue
Napoleon, Ohio 43545

Dear Mr. Maringer:

On October 1, 2000, this office received a report from Campbell's Soup Company (Campbell's) entitled RCRA Site Closure Investigation Work Plan: Former Holding Pit Area. The Ohio Environmental Protection Agency (Ohio EPA) has reviewed the document and offers the following comments:

1. Campbell's has not identified the full horizontal or vertical range of contamination. The sampling points provided to Ohio EPA in Figure 3 are acceptable, although more locations may be necessary if contamination is widespread. Campbell's is directed to sections 3.14 and 3.14.1 of Ohio EPA's Closure Plan Review Guidance for RCRA Facilities, Part I. Of particular importance is the need to sample vertically until 2 to 4 consecutive samples in the vertical direction and 2 samples in the horizontal direction show that concentrations of constituents are below their respective method detection limits (MDLs). Also, vertical sampling should extend at least 3 to 5 feet beyond the last point where a contaminant's concentration was above its detection limit.

2. The closure plan must state that the former sludge-holding pit was used from 1981 through 1983.

3. The closure plan must provide an estimate of the maximum volume of hazardous waste sludge present in the pit during its operation.

4. The closure plan must state that the waste codes associated with the wastes stored in the pit. Ohio EPA believes the appropriate codes to be D001, F003, and F005 based on sampling results, the materials' use as solvents, and MSDS sheets for the solvents provided to Ohio EPA by Campbell's.

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(revised 2/99)

5. The closure plan must specify methods for the removal of waste and contaminated media. Information pertaining to staging, loading, and transportation of this material must also be included, as well as the land disposal restrictions (LDR) status of each waste stream relative to treatment and disposal. Campbell's should consult section 3.6 of Ohio EPA's Closure Plan Review Guidance for RCRA Facilities, Part I for more detail.

6. Campbell's must include a description of how sampling equipment and reusable equipment (such as earth movers) will be decontaminated.

7. Campbell's must provide an estimate of how waste material generated from decontamination will be managed. Campbell's must also supply an estimate of the volume of waste material generated by decontamination efforts in the closure plan.

8. Campbell's may use a mobile laboratory for sample screening purposes only. The mobile laboratory should not be used for confirmation sampling or risk assessment purposes.

9. Campbell's closure plan must state that organic constituents must be below method detection limits in order to determine the full extent of contamination.

10. Campbell's closure plan must describe each step in removing waste and contaminated soil from the property. Campbell's should consult section 3.15 of Ohio EPA's Closure Plan Review Guidance for RCRA Facilities, Part I for more information on this subject.

11. Campbell's closure schedule must begin at the point of the director's approval and should be in the form of a milestone chart. The schedule should contain at least dates for soil removal, dates when a professional engineer will be present, dates for backfilling of soil, etc.

12. The closure plan must state that the Ohio EPA inspector will be notified at least 5 days in advance of all critical activities relating to the closure. These activities would include: initial day field activities begin, sampling of soils or ground water, and removal activities.

13. Campbell's closure certification must contain the exact wording found in Ohio Administrative Code rule 3745-50-42(D). The certification document must contain at least the information listed in section 3.18 of Ohio EPA's Closure Plan Review Guidance for RCRA Facilities, Part I.

This review should not be construed to constitute a complete review of Campbell's closure plan for the former holding pit area. The plan will be addressed in detail in future correspondence. This review did not include joint review by Ohio EPA's Division of Drinking and Ground Waters. If you have any questions, feel free to contact me at (419) 373-3070.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/csr

pc: Dr. Osman Aly, Campbell's Soup Company
Jeremy Carroll, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
John Weaver, DDAGW, NWDO
NWDO File

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone#: 856-968-4423
Fax#: 856-968-2808/2809

March 30, 2001

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager – M. Terpinski
347 North Dunbridge Road
Bowling Green, OH 43402

and

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

Re: Director's Final Findings and Orders
Campbell Soup Supply Company L.L.C.
Campbell Soup Company
Withdrawal of Earlier Work Plan Submission

Gentlemen:

This is to request withdrawal of our previous submittal of "RCRA Closure Investigation Work Plan – Former Holding Pit Area" dated November 2, 2000. Also, we request your approval of extension of the time required for submittal of RCRA Closure Plan for 90 days from the date of this letter. Pursuant to our discussion with Mr. Mike Terpinski, this extension will allow the completion of sampling activities and to obtain the necessary information for the preparation of an appropriate Closure Plan in accordance with OAC rules.

Please give me a call at 856-968-4423 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

Osman. M. Aly, Ph.D.
Consultant

OMA/dp

cc: Faith Greenfield
Mike Maringer (Napoleon)
Robert Shober

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone#: 856-968-4423
Fax#: 856-968-2808/2809

October 29, 2001

Via Airbourne Express

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager
347 North Dunbridge Road
Bowling Green, OH 43402

and

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

Re: Amendments to Director's Final Findings and Orders of October 18, 2000
Campbell Soup Supply Company L.L.C.
Campbell Soup Company

Gentlemen:

Enclosed please find a report entitled "RCRA Site Closure Plan – Former Holding Pit Area" related to Campbell Soup Supply Company facility at Napoleon, Ohio.

The Closure Work Plan is submitted in compliance with the above Order for your review and approval.

Please give me a call at 856-968-4423 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

Osman. M. Aly, Ph.D.
Consultant

OMA/dp

cc: F. Greenfield
M. Maringer
R. Shober
C. del Sol

att.

file

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

May 23, 2002

Via Airborne Express

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
Attn: Pamela Allen, Manager, Information Technologies and Technical Support Section
P.O. Box 1049
Columbus, Ohio 43216-1049

And

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
Attn: James Moseley
Division of Hazardous Waste Management
347 Dunbridge Road
Bowling Green, Ohio 43402

RE: Revised RCRA Closure Plan
Campbell Soup Company
OEPA ID #OHD005419171

Dear Mr. Moseley:

Enclosed please find the revised RCRA closure plan for the former sludge pit unit located at Campbell Soup Company's facility located at 1273 State Route 110, Napoleon, Ohio.

The revised closure plan is submitted as requested in your letter of Notice of Deficiency dated April 23, 2002. The revised closure plan addressed all the areas indicated in the deficiency comments. The revised plan was prepared in accordance with the editorial protocol outlined in your letter.

We would appreciate your review and approval of the closure plan at your earliest convenience. Please call me at 856-968-4423 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

Robert T. Shober for/

Osman M. Aly, Ph.D.
Consultant

OMA/lgm

Cc: C. del Sol
F. Greenfield
M. Maringer
R. Shober
C. Savage, GeoTrans, Inc.

APPENDIX 3

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
122 South Front St.
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
Lazarus Government Center
P. O. Box 1049
Columbus, OH 43216-1049

AUG 01 2002

Certified Mail

OHIO E.P.A.
AUG - 1 2002
ENTERED DIRECTOR'S JOURNAL

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: **Revised Closure Plan Approval**
Campbell Soup Company
USEPA/OEPA ID# OHD005419171

Dear Dr. Aly:

On October 31, 2001, GeoTrans Inc., on behalf of Campbell Soup Company (Campbell), submitted to Ohio EPA a closure plan entitled RCRA Site Closure Plan, Former Holding Pit Unit for a sludge pit unit formerly operated on the property. The facility is located at 1273 State Route 110, Napoleon, Ohio 43545. Revisions to the closure plan were received May 28, 2002, and July 15, 2002. The closure plan was submitted pursuant to the revised Director's Final Findings and Orders issued August 22, 2001, and Ohio Administrative Code (OAC) 3745-66-12 in order to demonstrate that Campbell's proposal for closure complies with the requirements of rules OAC 3745-66-11 and 3745-66-12.

The owner and the public were given the opportunity to submit written comments regarding the closure plan in accordance with the hazardous waste rule requirements. The public comment period extended from November 21, 2001, through December 20, 2001. No public comments were received by Ohio EPA.

Based upon review of Campbell's submittal and subsequent revisions, I conclude that the amended closure plan for the hazardous waste facility at 1273 State Route 110, Napoleon, Ohio 43545, as modified herein, meets the performance standard contained in OAC rule 3745-66-11 and complies with the pertinent parts of OAC rule 3745-66-12.

The amended closure plan originally submitted to Ohio EPA on October 31, 2001, and revised on May 28, 2002, and July 15, 2002, by Campbell is hereby approved with the following modifications:

I certify this to be an accurate and complete copy of official documents in the Ohio Environmental Protection Agency

Approval with Modifications to Revised Closure Plan
Campbell Soup Company

Ohio EPA has determined that several site characterization activities must be performed by the facility to meet the general closure standards for hazardous waste facilities and the specific standards for the closure of surface impoundments. These activities must be completed as part of the closure period. Site investigation results will determine whether additional closure activities are needed or whether closure certification can be completed. The nature and extent of post-closure monitoring will also be directed by the results from sampling activities outlined in Section 14.4.

General Modifications to the May 28, 2002, Revised Closure Plan

1 No excavation activities as outlined in this plan shall be undertaken until any and all authorizations necessary to perform the actions contained herein are obtained from Ohio EPA. This includes any permits necessary pursuant to compliance with OAC rules 3745-31-02 and 3745-35-02. Copies of such authorization(s) shall be received by the Division of Hazardous Waste, NWDO prior to beginning any excavation.

2 Campbell shall follow standard industry protocols while investigating the potential for impact to shallow ground water including those activities outlined in Section 14.1. Data that demonstrates appropriate well construction, boring, development, and sampling logs as well as all other pertinent monitoring well information and ground water analytical results shall be generated and compiled during this investigation for submission to Ohio EPA. Standards for such activities can be found in the Ohio EPA guidance document entitle *Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring* dated February 1995.

3 If analysis of water samples obtained from the ground water investigation show the shallow ground water has been impacted, within 30 days of receipt of the analytical results, Campbell shall submit an amended closure plan which includes a revised schedule for closure and details the measures to be undertaken to delineate and remediate the areas of contamination.

4 If Campbell is not able to demonstrate clean closure of the contaminated area at the time of submission of the certification report, Campbell shall either excavate and dispose of all contaminated material off-site or submit an amended closure plan which details the measures necessary to close as a surface impoundment in accordance with OAC rule 3745-67-28. Should the latter alternative be chosen, Campbell shall submit a closure/post-closure care plan pursuant to OAC rules 3745-66-10 through 3745-66-20 and 3745-68-10.

Specific Modifications to the May 28, 2002, Revised Closure Plan

5 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state that Campbell will complete and submit a site health and safety plan to Ohio EPA, NWDO within 30 days of receipt of a notice of approval by Ohio EPA of the closure plan.

6 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state all information generated during the shallow ground water investigation shall be submitted to Ohio EPA, NWDO within 30 days of the installation of the last monitoring well.

7 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state Campbell will receive the results of closure verification sampling within 180 days of receipt of a notice of approval by Ohio EPA of the closure plan.

8 Section 8, Schedule for Closure. The revised closure plan is hereby modified to state Campbell will conduct the engineer inspection and certification of site closure within 180 days of receipt of a notice of approval by Ohio EPA of the closure plan.

9 Section 11, Decontamination Efforts. For sampling and analysis involving waste delineation and confirmation, Campbell shall collect field blanks at a frequency of 10% of the total number of samples sent to the laboratory at a minimum of one field blank per day. Field blanks shall consist of analyte-free water poured over decontaminated sample collection equipment. They shall be analyzed for each analysis requested for the soil samples being sent to the laboratory for that particular day of sample collection.

10 Section 14.4, Waste Characterization Sampling Plan. The revised closure plan is hereby modified to state material analyzed for the presence of hazardous waste characteristics as required by OAC rule 3745-52-11 shall utilize the Toxicity Characteristic Leaching Procedure (TCLP) extraction method. These samples shall be analyzed for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals using standard SW-846 methods.

11 Section 14.4, Waste Characterization Sampling Plan. The revised closure plan is hereby modified to state copies of manifests and receipts will be sent to Ohio EPA, NWDO for any waste disposed off-site. Campbell shall provide Ohio EPA with an estimate of volume for all wastes treated on-site and disposed off-site as a result of closure activities.

12 Section 17.0, Certification. The revised closure plan is hereby modified to state Campbell shall include a topographic map depicting the ground surface elevations of the mound and natural grade with a scale no greater than 1 inch equals 30 feet and a contour interval no greater than 5 feet. It shall also include detailed descriptions and locations of the topographic features in the vicinity of the mound and at Campbell's plant which may affect conditions at the mound (i.e., buildings, rivers, ditches, etc...).

13 Section 17.0, Certification. The revised closure plan is hereby modified to state that Campbell shall include a separate appendix in the closure certification report which contains all the data generated during the ground water investigation. This may be incorporated by reference if this information has already been submitted in its entirety to Ohio EPA, NWDO in distinct form. Lab data generated as part of this investigation may be placed elsewhere within the report.

14 Table 3 in the revised closure plan which contains the maximum concentrations for the constituents of concern is hereby replaced by the table in Attachment A.

End of Modifications

Compliance with the approved closure plan, especially including the modifications specified herein, is expected. Ohio EPA will monitor such compliance. Ohio EPA expressly reserves the right to take action, pursuant to chapters 3734. and 6111. of the Ohio Revised Code, and other applicable law, to enforce such compliance and to seek appropriate remedies in the event of noncompliance with the provisions and modifications of this approved closure plan. Please be advised that approval of this closure plan does not release Campbell from any responsibilities regarding corrective action for all releases of hazardous waste or constituents from any waste management unit, regardless of the time at which waste was placed in the unit.

You are hereby notified that this action of the Director of Environmental Protection is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the commission within 30 days after notice of the director's action. Notice of the filing of the appeal shall be filed with the director within three days after the appeal is filed with the commission. An appeal may be filed with the commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

When closure is completed, OAC rule 3745-66-15 requires the owner or operator of a facility to submit to the director of Ohio EPA, certification by the owner or operator and an independent, registered professional engineer, that the facility has been closed in accordance with the approved closure plan.

The certification by the owner or operator shall include the statement found in OAC rule 3745-50-42(D). These certifications should be submitted to:

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
Attn: Pamela Allen, Information Technologies and Technical Support Section
P.O. Box 1049, Columbus, Ohio 43216-1049

Ohio EPA, Division of Hazardous Waste Management, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and, as a result, eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Colleen Weaver at (419) 373-3059.

Sincerely,

Christopher Jones
Director

cc: Pamela Allen, DHWM Central File, Ohio EPA
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA
Harriet Croke, USEPA - Region V
James Moseley, NWDO, Ohio EPA
Craig Savage, GeoTrans, Inc.
ec Michael Terpinski, NWDO, Ohio EPA
Colleen Weaver, NWDO, Ohio EPA
James Moseley NWDO, Ohio EPA

CJ/llr

Attachment A

Chemical of Concern Identified at the Site	Direct Contact Soil Standard, Multiple Chemical Adjusted (µg/kg)	Direct Contact Soil Standard, Multiple Chemical Adjusted (mg/kg)	Basis	Non-Cancer GCN	Cancer GCN	SAT	MCA NC	MCA CA
Chloromethane (methyl chloride)	813	0.81	nc	3.66E+01	na	1.09E+03	8.13E-01	na
Bromomethane	84	0.08	nc	3.77E+00	na	3.07E+03	8.38E-02	na
Methylene chloride	5,313	5.31	ca	1.63E+03	8.50E+01	2.28E+03	3.62E+01	5.31E+00
Chloroform	151	0.15	ca	4.16E+01	2.41E+00	2.53E+03	9.24E-01	1.51E-01
Benzene	152	0.15	nc	6.85E+00	6.87E+00	9.58E+02	1.52E-01	4.29E-01
Trichloroethene	498	0.50	nc	2.24E+01	2.70E+01	9.24E+02	4.98E-01	1.69E+00
Toluene	12,756	12.76	nc	5.74E+02	na	8.80E+02	1.28E+01	na
Ethylbenzene	30,444	30.44	nc	1.37E+03	na	2.25E+02	3.04E+01	na
Total xylenes	32,667	32.67	nc	1.47E+03	na	3.16E+02	3.27E+01	na
Styrene	88,667	88.67	nc	3.99E+03	na	6.83E+02	8.87E+01	na
Isopropylbenzene (cumene)	35,333	35.33	nc	1.59E+03	na	8.55E+02	3.53E+01	na
1,2,3-Trichloropropane	40	0.04	ca	3.27E+02	6.33E-01	9.88E+02	7.27E+00	3.96E-02
n-Propylbenzene	12,111	12.11	nc	5.45E+02	na	7.20E+01	1.21E+01	na
1,3,5-Trimethylbenzene	431	0.43	nc	1.94E+01	na	1.99E+02	4.31E-01	na
tert-Butylbenzene	12,111	12.11	nc	5.45E+02	na	3.88E+02	1.21E+01	na
1,2,4-Trimethylbenzene	496	0.50	nc	2.23E+01	na	2.55E+02	4.96E-01	na
sec-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
p-Isopropyltoluene	12,733	12.73	nc	5.73E+02	na	5.73E+02	1.27E+01	na
n-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
1,2,4-Trichlorobenzene	2,333	2.33	nc	1.05E+02	na	3.02E+03	2.33E+00	na
Naphthalene	1,213	1.21	nc	5.46E+01	na	2.43E+02	1.21E+00	na
2-Methylnaphthalene	1,213	1.21	nc	5.46E+01	na	1.13E+04	1.21E+00	na
Methyl-4-2-Propanone (MIBK)	16,178	16.18	nc	7.28E+02	na	1.72E+04	1.62E+01	na
Butanone2# (MEK)	146,667	146.67	nc	6.60E+03	na	3.41E+04	1.47E+02	na
Acenaphthene	48,667	48.67	nc	2.19E+03	na	1.08E+02	4.87E+01	na
Fluorene	33,778	33.78	nc	1.52E+03	na	9.03E+01	3.38E+01	na
Phenanthrene	158,000	158.00	sat	1.21E+04	na	1.58E+02	2.69E+02	na
Anthracene	5,670	5.67	sat	1.21E+04	na	5.67E+00	2.69E+02	na
Fluoranthene	36,667	36.67	nc	1.65E+03	na	na	3.67E+01	na
Pyrene	33,333	33.33	nc	1.50E+03	na	9.96E+01	3.33E+01	na
Benzo(a)Anthracene	289	0.29	ca	na	4.63E+00	na	na	2.89E-01
Chrysene	7,180	7.18	sat	na	4.57E+02	7.18E+00	na	2.86E+01
Benzo(b)Fluoranthene	288	0.29	ca	na	4.60E+00	na	na	2.88E-01
Benzo(k)Fluoranthene	2,906	2.91	ca	na	4.65E+01	na	na	2.91E+00
Benzo(a)Pyrene	29	0.03	ca	na	4.65E-01	na	na	2.91E-02
Indeno(1,2,3-cd)Pyrene	291	0.29	ca	na	4.65E+00	na	na	2.91E-01
Benzo(g,h,i)Perylene	150	0.15	sat	1.50E+03	na	1.50E-01	3.33E+01	na
Trichlorofluoromethane	7,956	7.96	nc	3.58E+02	na	3.91E+04	7.96E+00	na
1,1-Dichloroethene	33	0.03	ca	1.97E+01	5.21E-01	1.55E+03	4.38E-01	3.26E-02
trans-1,2-Dichloroethene	1,382	1.38	nc	6.22E+01	na	3.05E+03	1.38E+00	na
1,1-Dichloropropene	qualitative	qualitative		na	na		na	na
1,2-Dichloroethane	238	0.24	nc	1.07E+01	2.82E+01	1.81E+03	2.38E-01	1.76E+00
Chlorobenzene	1,116	1.12	nc	5.02E+01	na	6.95E+02	1.12E+00	na
Bromobenzene	836	0.84	nc	3.76E+01	na	7.53E+02	8.36E-01	na
1,1,2,2-Tetrachloroethane	223	0.22	ca	na	3.56E+00	1.71E+03	na	2.23E-01
2-Chlorotoluene	24,222	24.22	nc	1.09E+03	na	1.42E+03	2.42E+01	na
4-Chlorotoluene	qualitative	qualitative		na	na	3.44E+02	na	na
1,3-Dichlorobenzene	9,089	9.09	nc	4.09E+02	na	2.40E+02	9.09E+00	na
1,4-Dichlorobenzene	1,900	1.90	ca	3.37E+03	3.04E+01	na	7.49E+01	1.90E+00
1,2-Dichlorobenzene	19,178	19.18	nc	8.63E+02	na	3.73E+02	1.92E+01	na
1,2-Dibromo-3-chloropropane	69	0.07	nc	3.11E+00	na	2.07E+03	6.91E-02	na
Hexachlorobutadiene	242	0.24	nc	1.09E+01	5.68E+01	1.18E+05	2.42E-01	3.55E+00
1,2,3-Trichlorobenzene	182	0.18	nc	8.18E+00	na	1.24E+03	1.82E-01	na
Acetone	32,000	32.00	nc	1.44E+03	na	1.04E+05	3.20E+01	na

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

January 13, 2003

Via Airborne Express

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
ATTN: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

And

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
Attn: Mr. James Moseley
Division of Hazardous Waste Management
347 Dunbridge Road
Bowling Green, Ohio 43402

RE: Campbell Soup Company, Napoleon Site
Revision to RCRA Schedule to Closure

Dear Mr. Moseley:

Campbell Soup Company initiated RCRA closure and excavation activities at the Napoleon, Ohio Plant (former holding pit unit) during the week of December 9, 2002. This was in advance of the schedule presented in our OEPA approved RCRA Closure Plan. However, the uncharacteristically warm weather we have experienced over the past three weeks and the on-set of wet weather has resulted in the need to construct a temporary road capable of supporting heavy equipment, and the need to obtain sand to reduce the moisture content of the soil prior to treatment. These conditions and several minor equipment repairs have resulted in the excavation and treatment proceeding at a pace slower than anticipated. Therefore, we are requesting a modification to the approved RCRA Closure Plan schedule.

According to the approved RCRA Closure Plan, the soil excavation and collection of the soil corrective action verification samples were to be completed by January 18, 2003. It now appears we will not be able to meet that schedule. We request that the OEPA amend our approved schedule to reflect completion of this task by February 18, 2003 and change the scheduled completion date for all subsequent activities dependent on this task as follows:

Receive results of closure verification	March 31, 2003
Conduct engineer inspection and certification of site closure	April 15, 2003
Complete excavation backfill and regarding	May 1, 2003

I would appreciate your approval at your earliest convenience. If you have any questions regarding this request, please do not hesitate to call me at 856 968-4423, or contact Mr. Craig Savage at 734 213-5042.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

OMA/lgm

Cc: C. del Sol
F. Greenfield
M. Maringer
R. Shober
C. Savage, GeoTrans, Inc.

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

Certified Mail

February 20, 2003

OHIO E.P.A.
FEB 20 2003
ENTERED DIRECTOR'S JOURNAL

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Closure Period Extension
Campbell Soup Company
Former Holding Pit
USEPA/OEPA ID# OHD005419171

I certify this to be a true and accurate copy of the official document as filed in the Ohio Environmental Protection Agency.
By: Zona L Clemento Date: Feb, 20 03

Dear Dr. Aly:

On January 13, 2003, the Campbell Soup Company (Campbell), located at 1273 State Route 110, Napoleon, Ohio, submitted a request for an extension to the closure period specified in the approved closure plan dated August 8, 2002, of ninety-three days, until May 1, 2003. The extension request was submitted pursuant to Ohio Administrative Code (OAC) rule 3745-66-13(B) as closure will require longer than the 180 day period specified in OAC rule 3745-66-13. Campbell has requested this extension because uncharacteristically warm and wet weather in December has resulted in delays due to the need to construct temporary roads for support of heavy equipment. Several instances of equipment failure have also hampered Campbell's ability to meet the deadlines in the closure plan.

My staff reviewed your request for an extension to the closure period and recommends that the extension be granted per OAC rule 3745-66-13(B). I concur and am therefore granting this extension request. This extension is being granted for the above referenced closure plan and expires on May 1, 2003.

Campbell shall continue to take all steps to prevent a threat to human health and the environment from the unclosed, but inactive waste management unit per OAC rule 3745-66-13(B)(2).

Please be advised that approval of this closure extension request does not release Campbell from any responsibilities as required under the Hazardous and Solid Waste Amendments of

1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

You are hereby notified that this action of the Director of Environmental Protection is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the commission within 30 days after notice of the director's action. Notice of the filing of the appeal shall be filed with the director within three days after the appeal is filed with the commission. An appeal may be filed with the commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

When closure is completed, OAC rule 3745-66-15 requires the owner or operator of a facility to submit to the director of Ohio EPA, certification by the owner or operator and an independent, registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan. The certification shall follow the format specified in OAC rule 3745-50-42(D), and should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Regulatory and Information Services Section, P.O. Box 1049, Columbus, Ohio 43216-1049.

Sincerely,

Christopher Jones
Director

cc: Pamela Allen, DHWM Central File, Ohio EPA
Harriet Croke, Ohio Permit Section, USEPA - Region V
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA
James Moseley, NWDO, Ohio EPA
Michael Kovacich, GeoTrans, Inc

ec Michael Terpinski, NWDO, Ohio EPA
James Moseley NWDO, Ohio EPA

Campbell Soup Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Director – Environmental Affairs

Telephone #: 609-968-4423
Fax #: 609-968-2808/2809

March 6, 2003

Mr. James Moseley
Ohio Environmental Protection Agency – NWDO
347 North Dunbridge Rd.
Bowling Green, Ohio 43402

Re: Minor Modification to RCRA Site Closure Plan
Former Holding Pit, Campbell Soup, Napoleon, Ohio

Dear Mr. Moseley:

Campbell Soup Supply Company (Campbell) has prepared this minor modification to the *RCRA Site Closure Plan (Closure Plan)* for the former holding pit unit in Napoleon, Ohio. A change in the closure plan activities has become necessary, due to changing site conditions. We have provided this document to explain the additional proposed activities to close this site and our proposed minor changes to the *Closure Plan*, dated May 24, 2002.

BACKGROUND

As outlined in Section 7.0 of the Closure Plan, thermal desorption treatment was chosen to remediate this site. Since beginning thermal treatment of the soils on December 12, 2002, the process has effectively destroyed VOCs in the soil. However, the thermal process did not completely destroy all of the SVOCs. For some portions of the elevated area, treated soil does not meet the unrestricted use criteria (clean-up criteria) established for the site.

Verification samples VR-03-04 and VR-03-05 collected from post treatment stockpiles #4 and #5, respectively, exhibit the highest concentrations of SVOCs and exceed the cleanup criteria established for the site. A potential source of the elevated SVOCs is roofing material (felts, flashing, and tar) that was encountered in the western portion of the excavation. Partially combusted pieces of roofing material were identified in post treatment stockpiles #4 and #5. Once the roofing material was identified, excavation activities were moved from the western portion of the elevated area, to the east, in the vicinity of the former holding pit. No roofing materials have been identified in this area. SVOC concentrations decreased in each post treatment stockpile sample, once excavation activities were moved to the former holding pit area.

Approximately 3,250 tons of additional contaminated soil has been encountered during excavation activities. The additional contaminated soil is attributable to the presence of contamination at higher elevations then expected, and in areas beyond the extent estimated during the remedial investigation. Approximately 1,000 additional tons of SVOC contaminated soil was encountered at an elevation of 685 feet, 2-feet above the closure plan delineation. The remaining 2,250 additional tons were primarily encountered along the western and southern portions of the elevated area were the ramp was constructed and where the ditch (old access road) is present.

CURRENT PROJECT STATUS

Thermal processing of the soil ceased on February 20, 2003, after approximately 5,750 tons of soil had been processed (approximately 4,950 tons of excavated soil and 800 tons of mixing soil). Thermal treatment was suspended for the following reasons:

- Treated soil containing roofing materials did not meet the clean-up criteria following one pass through the treatment system;
- Increase in the quantity of soil that needs to be removed from the site due to contamination extending beyond the limits of the delineation line;
- Propane use increased significantly during treatment due to high soil moisture content attributable unusually heavy rain and snow melt; and
- Propane costs increased significantly during the project.

Currently, we estimate that 3,000 tons of contaminated soil will be excavated from the elevated area (2,000 tons of SVOC soils and 1000 tons of soil from the former holding pit area). In addition, we estimate that there is approximately 500 tons of soil stockpiled at the thermal plant staging area. Therefore, approximately 3,500 tons of untreated soil still requires treatment or disposal.

Through discussions with the Ohio EPA toxicologist, we have determined that Campbell will use post closure conditions to close the site. As outlined in our consultant's (GeoTrans, Inc.) correspondence dated January 15, 2003, a statistical approach using GCN's will be used to obtain unrestricted closure of this site. When the results from samples collected from post treatment stockpiles #4, #5 and #11 are included in the statistical analysis, the site does not meet the unrestricted use criteria. In order to meet unrestricted criteria, these stockpiles (approximately 1,200 tons) will require additional treatment or disposal.

PROPOSED MINOR MODIFICATION TO CLOSURE PLAN

Campbell proposes disposing the soil offsite at two separate licensed facilities. Approximately 3,500 tons of untreated contaminated soil will be disposed offsite at the Williams County Solid Waste Landfill. The 1,200 tons of treated soil from stockpiles #4, #5 and #11 will disposed of off site, as daily cover at the Henry County Solid Waste Landfill.

In order to receive approval for offsite disposal of contaminated soil from the North West District Office, we request that the following minor modifications be made to the *Closure Plan*:

Page 20, third paragraph, please add the following sentence as the second sentence in that paragraph:

> On site treatment using medium thermal desorption will be used to treat up to 3,300 cubic yards (5,000 tons).

Page 22, first paragraph continued from page 21, please add the following sentences as the third and fourth sentences in that paragraph:

> A total of 3,300 yards (approximately 5,000 tons) will be treated using medium temperature desorption. If additional contaminated soils are encountered during the site excavation, these soils will be disposed offsite at an approved solid waste landfill.

Page 26, please add the following section following Section 9.2:

9.2 Offsite Disposal of Soil
Non hazardous waste manifest, bill of lading or other appropriate documentation will be generated for all soil removed from the site.

Page 29, last paragraph, please replace the second sentence with the following sentence:

The general strategy for meeting the cleanup numbers at this site involves removal through excavation and on-site treatment using medium thermal treatment thermal desorption and offsite disposal of contaminated soil encountered above 3,300 yards (approximately 5000 tons) or any treated soil that does not meet the cleanup criteria following one pass through the treatment system.

SCHEDULE

We are not proposing any changes to the current schedule as presented in our January 13, 2003 and February 10, 2003 letters to the Ohio EPA.

If you have any questions or wish to discuss any aspect regarding this minor modification to the *Closure Plan*, please do not hesitate to call me at 856 968-4423 or Michael Kovacich at 734-213-5024.

Sincerely,

Osman M. Aly, Ph. D.
Consultant

copy: Mr. Michael Maringer, Campbell
Mr. Michael Kovacich, GeoTrans
Mr. Robert Shober, Campbell

p:/projects/campbell soup/documents/closure plan minor mod.doc

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

March 11, 2003

CERTIFIED MAIL

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Minor Change to Approved Closure Plan
Campbell Soup Company
Former Holding Pit
USEPA ID# OHD005419171

Dear Dr. Aly:

On March 7, 2003, Ohio EPA received a request for modification to an approved closure plan for Campbell Soup Company located at 1273 State Route 110, Napoleon, Ohio. The original closure plan was approved on August 1, 2002. The requested modification meets the criteria for submission and approval of an amended closure plan as detailed in Ohio Administrative Code rule 3745-66-12 (C)(3).

The requested amendment to the approved closure plan is as follows:

- The third paragraph on Page 20 of the approved closure plan is hereby amended to add the following at the end of the paragraph: "On-site treatment using medium temperature thermal desorption will be used to treat up to 3,300 cubic yards (5,000 tons)."

- The first paragraph on page 22 continued from page 21 of the approved closure plan is hereby amended to add the following at the end of the paragraph: "A total of 3,300 yards (approximately 5,000 tons) will be treated using medium temperature thermal desorption. If additional contaminated soils are encountered during the site excavation, these soils will be removed and properly disposed off-site at a licensed solid waste landfill."

- Section 9.2 of the approved closure plan is hereby amended to add the following at the end of the section: "A non-hazardous waste manifest, a bill of lading, or other appropriate documentation will be generated for all soil removed from the site."

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- The second sentence of the last paragraph on page 29 of the approved closure plan is hereby replaced with the following: "The general strategy for meeting the cleanup numbers at the site involves removal through excavation and on-site treatment using medium temperature thermal desorption and offsite disposal of contaminated soil encountered above 3,300 yards (approximately 5000 tons) or any treated soil that does not meet the cleanup criteria following one pass through the treatment system."

With this letter, Ohio EPA approves the above referenced modification to the approved closure plan, submitted pursuant to Ohio Administrative Code Chapter 3745-66-12.

If you have any questions concerning this action, please contact James Moseley at Ohio EPA's Northwest District Office by telephone at (419) 373-3015.

Sincerely,

Edwin J. Hammett
District Chief

/llr

pc: Pamela Allen, Manager, ITTSS, DHWM, CO
Jeremy Carroll, Supervisor, Engineering Unit, DHWM, CO
Michael Terpinski, Supervisor, DHWM, NWDO
James Moseley, DHWM, NWDO
DHWM-NWDO File: Campbell Soup, Waste Pit

APPENDIX 4

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

July 3, 2003

Via Airborne Express

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
ATTN: Pamela Allen
Regulatory and Information Services Section
122 South Front Street
Columbus, Ohio 43215

And

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
Attn: Ms. Kara Reynolds
Division of Hazardous Waste Management
347 Dunbridge Road
Bowling Green, Ohio 43402

RE: Campbell Soup Company, Napoleon Site
RCRA Site Closure Certification Report

Dear Ms. Reynolds:

This is to inform you that all the soil remediation and closure activities at Campbell Soup Company's site located at 1273 State Route 110, Napoleon, Ohio, have been completed on May 15, 2003 according to the approved RCRA Closure Work Plan.

Enclosed please find copies of a "Certification Report" prepared by GeoTrans, Inc., an independent registered professional engineer, certifying that the facility has been closed in accordance with the specifications in the approved closure plan. The certification was prepared following the format specified in OAC rule 374-5-50-53(D).

We would appreciate your review and approval of this certification report at your earliest convenience. If you have any questions, please call me at (856) 968-4423, or Michael Kovacich at (734) 213-5024.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

cc: Faith Greenfield, Esq.
R. T. Shober

bcc: M. Maringer
M. Kovacich (GeoTrans)

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

September 4, 2003

CERTIFIED MAIL

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Former Holding Pit -Notice of Deficiency (NOD)
RCRA Site Closure Certification Report
Campbell Soup Supply Company, Napoleon
OHD 005 419 171

Dear Dr. Aly:

On July 7, 2003, Ohio EPA received from Campbell Soup Company a closure certification report for the former holding pit unit located at 1273 State Route 110, Napoleon, Ohio. Ohio EPA received subsequent submittals from Campbell's on August 6, 2003 and August 12, 2003. The document is titled *RCRA Site Closure Certification Report, Former Holding Pit Unit.*

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a review of the above referenced certification report, and has determined it to be incomplete and technically inadequate.

We have enclosed, as an attachment to this correspondence, detailed deficiency comments on the certification report. Please provide a revised certification report addressing all areas indicated in the deficiency comments. Ohio Administrative Code (OAC) rule 3745-66-12 requires that such a revised certification report be submitted to the Director of Ohio EPA for approval within thirty (30) days of the receipt of this letter.

The revised certification report shall be prepared in accordance with the following editorial protocol or convention:

1) Old Language is over-struck, but not obliterated.

2) New Language is capitalized.

3) Page headers should indicate date of submission.

4) If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

Printed on Recycled Paper

The revised certification report should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Manager, Regulatory and Information Services Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to: Kara Reynolds, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio, 43402.

If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Kara Reynolds, at (419)-373-3065.

Ohio EPA, DHWM, strongly encourages you to consider pollution prevention options for any processes at your facility that generate waste. While implementation of pollution prevention options is not required by Ohio laws and regulations, the application of waste minimization practices may help reduce the expense of remedial activities. Additionally, implementation of pollution prevention options may prevent the creation of new units and as a result eliminate the requirement to submit a closure plan in the future. For assistance in identifying and implementing pollution prevention options, contact Colleen Weaver at (419)-373-3059.

Sincerely,

Michael R. Terpinski
Supervisor
Division of Hazardous Waste Management

/csl

Enclosures: Table 1-Residential Generic Cleanup Numbers (GCNs) for Ohio Hazardous Waste Closures
Appendix II, Tier I Checklist
Attachment A

cc: Pamela Allen, DHWM, Central File, Ohio EPA
Harriet Croke, U.S. EPA, Region 5
Ed Lim, Manager, Engineering & Risk Assessment Section, CO, Ohio EPA
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Kara Reynolds, Ohio EPA, NWDO
DHWM, NWDO File 7001 2510 0000 7069 2727
Michael Maringer, Campbell Soup Company, Napoleon
Michael Kovacich, GeoTrans, Inc., Ann Arbor
Tesha Yielding, GeoTrans, Inc., Ann Arbor

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

September 16, 2003

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Certification Period
Campbell Soup Supply Company, Napoleon
Former Holding Pit Unit
OHD 005 419 171

Dear Dr. Aly:

On September 12, 2003, Campbell Soup Company (CSC), located at 1273 State Route 110, Napoleon, Ohio, submitted a request, via e-mail, for an extension to the certification revision period specified in the Notice of Deficiency (NOD) dated September 4, 2003. CSC has requested this extension because they would like to meet with the Ohio Environmental Protection Agency (Ohio EPA) to discuss the comments in the NOD before submitting a revised certification report. As stated in the e-mail from Michael Kovacich, CSC "received the Notice of Deficiency on September 8, 2003. The notice states that per OAC rule 3745-66-12, the revised certification report must be submitted to the Director for approval within thirty days of receipt of the letter. Therefore, the revised certification report is due to the Director on October 8, 2003. The earliest available date [to meet with Ohio EPA] September 29, 2003 only allows a maximum of 10 business days to revise and submit the certification report." CSC goes on to request an extension due to the period between the receipt of the NOD and the proposed meeting date.

I have reviewed your request for an extension to the certification revision period, and am granting this extension request. This extension is being granted for the above referenced certification report and expires thirty (30) days after the meeting between CSC and Ohio EPA.

Printed on Recycled Paper

The revised certification shall follow the format specified in the NOD, and should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attn: Pamela Allen, Regulatory and Information Services Section, P.O. Box 1049, Columbus, Ohio 43216-1049. A copy should also be sent to my attention at Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio, 43402.

Sincerely,

Kara Reynolds

Kara Reynolds
Division of Hazardous Waste Management

/csl

cc: Pamela Allen, DHWM Central File, Ohio EPA
Ed Lim, Manager, ERAS, CO, Ohio EPA
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Kara Reynolds, Ohio EPA, NWDO
DHWM File
Michael Maringer, Campbell Soup Company, Napoleon
Michael Kovacich, Geo Trans, Inc., Ann Arbor
Tesha Yielding, Geo Trans, Inc., Ann Arbor

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

December 8, 2003

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Former Holding Pit
RCRA Site Closure Certification Report
Campbell Soup Supply Company, Napoleon
OHD 005 419 171

Dear Dr. Aly:

On September 4, 2003, the Ohio Environmental Protection Agency (Ohio EPA) sent a Notice of Deficiency (NOD) to Campbell Soup Supply Company (CSC) for the *RCRA Site Closure Certification Report, Former Holding Pit Unit.* Comment 30 in the NOD requested that CSC perform statistical evaluations on the site data before completing the human health risk assessment. In response to our comment, CSC has submitted several documents and e-mails regarding a proposed statistical evaluation.

For risk purposes, CSC has chosen to use one-half the detection limit in the statistical determination of the exposure point concentration for certain chemicals. The facility used the Wilcoxon signed rank test and determined a 95% Upper Confidence Limit exposure point concentration that was well below the detection limit of the test. Even though the use of this procedure differs from Ohio EPA guidance, Ohio EPA does not disagree with the use of this statistical approach. However, Ohio EPA does not agree with the use of one half the detection limit with such highly censored data. According to U.S. EPA guidance, the use of one-half the detection limit is valid for statistical determinations, except in the case of highly censored datasets (see U.S. EPA, Guidance for Data Quality Assessment, 1998, section 4.73). Any statistical test using this type of data will determine an exposure point concentration that is biased to one half the detection limit value. This was indeed the case of the statistical evaluation submitted to Ohio EPA.

Ohio EPA cannot ignore the significance or the concentrations of samples with detections for a facility that is proposing a clean closure. In cases such as Campbell's, at other RCRA facilities, Ohio EPA requires either removal of impacted material or additional sampling to confirm the magnitude of contamination. However, the Campbell's facility presents something of a unique case because of the manipulation of soils after treatment activities had ceased. Therefore, Ohio EPA is willing to forego its normal procedure of having additional soil removed, if limited verification sampling is conducted to confirm that the soils will not pose a health risk now or in the future.

Ohio EPA is giving CSC the following options to choose from for determining the appropriate exposure and risk that contaminated media poses to human health and the environment.

a) CSC will be required to select a percentile, approved by Ohio EPA, of the highly censored data in the detectable range and use this value as the exposure point concentration in the risk assessment.

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Ohio EPA has suggested the 90th percentile in the past; or

b) CSC will be required to sample the existing top layers of soil, using a Sampling and Analysis Plan (SAP) approved by Ohio EPA, to determine the existing exposure point concentrations for all chemicals of concern (COC). These concentrations will be used in place of the existing closure data to show the residential human health risk posed by the top layers of soil through direct contact pathways including ingestion, inhalation, and dermal exposure. This risk assessment will not include the entire unit and will leave out the undisturbed, contaminated soils below the top layers. If CSC passes the human health risk assessment, a deed restriction will be required that prohibits the soils in this area to be disturbed by CSC or any other owner/operator. This will be used to protect against future exposure from the undisturbed, impacted soils below the top layers. If CSC does not pass the risk assessment, then CSC will need to work with Ohio EPA to determine other options for closure (e.g., closing as a landfill per the approved closure plan letter); or

c) CSC will be required to take several core samples in the existing backfilled area, using a SAP subject to approval by Ohio EPA, to determine the validity of the present data. If the data is similar in both the new samples and the closure samples, then CSC will proceed with the proposed statistical evaluation and human health risk assessment as agreed upon by Ohio EPA. If the data indicates that it is not similar to the closure samples, then CSC will work with Ohio EPA to determine options for closure.

Ohio EPA would like to schedule a conference call with CSC to discuss these closure options. Please contact Kara Reynolds at (419) 373-3065 at your earliest convenience.

Sincerely,

Kara Reynolds

Kara Reynolds
Division of Hazardous Waste Management

pc: Pamela Allen, DHWM Central File, Ohio EPA
Ed Lim, Manager, ERAS, CO, Ohio EPA
Stephanie Beak, ERAS, CO, Ohio EPA
Erik Hagen, ERAS, CO, Ohio EPA
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Kara Reynolds, Ohio EPA, NWDO
DHWM File
Michael Maringer, Campbell Soup Supply Company, Napoleon, Ohio
Michael Kovacich, Geo Trans, Inc., Ann Arbor, Michigan
Tesha Humphriss, Geo Trans, Inc., Ann Arbor, Michigan

Campbell SOUP Company

WORLD HEADQUARTERS
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

January 6, 2004

Via Airborne Express

Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
ATTN: Kara Reynolds
347 North Dunbridge Road
Bowling Green, Ohio 43402

RE: Former Holding Pit
RCRA Site Closure Certification Report
Campbell Soup Supply Company, Napoleon, Ohio
OHD 005 419 171

Dear Ms. Reynolds:

This is in response to your letter of December 8, 2003 concerning the available options proposed by Ohio EPA to choose from for determining the appropriate exposure and risk that the contaminated media at the site poses to human health and the environment.

After review of the three options, Campbell Soup Company decided to proceed with option (c), which requires taking several core samples in the existing backfilled area, using a SAP subject to approval by Ohio EPA to determine the validity of the present data as outlined in your letter. Through e-mail correspondence, conference calls and a site visit, the Ohio EPA and Campbell have come to a general agreement on the elements of the Sampling and Analysis Plan (SAP) as required by option (c). The primary elements of the SAP were outlined in our December 30, 2003 e-mail. Campbell will submit a draft SAP that incorporates these elements to the Ohio EPA for your review and approval.

If you have any questions or concerns, please do not hesitate to call me at 856 968-4423, or contact Mr. Michael Kovacich at 734 213-5024.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

OMA/lgm

Cc: M. Kovacich (GeoTrans, Inc.)
M. Terpinski
M. Maringer (Napoleon)
R. Shober

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

February 19, 2004

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Former Holding Pit
RCRA Site Closure Sampling and Analysis Plan
Campbell Soup Supply Company, Napoleon
OHD 005 419 171

Dear Dr. Aly:

On February 2, 2004, this office received a document titled *RCRA Site Closure Sampling and Analysis Plan: Former Holding Pit Unit*. This document described a sampling and analysis plan for a sampling event to aid in the closure at the Napoleon site. Ohio EPA has reviewed the document and offers the following comments:

1. General. Campbell Soup Company (CSC) does not describe quality assurance/quality control (QA/QC) measures to be implemented during this sampling event. The Ohio Environmental Protection Agency (Ohio EPA) would like to remind CSC that Ohio EPA approved QA/QC measures should be followed during this sampling and analysis event to ensure the validity of the data. CSC shall provide Ohio EPA with enough QA/QC information to complete Ohio EPA's Data Validation Plan Review Form included in the September 4, 2003, Notice of Deficiency (NOD) letter as Appendix II, Tier I Checklist. This required information includes, but is not limited to, the following: completed chain of custody forms, signed laboratory statement, date samples received by laboratory, date samples extracted by laboratory, date samples analyzed by laboratory, method blank data, field blank data, laboratory control sample data, matrix spike data, and matrix spike duplicate data. CSC shall revise the Sampling and Analysis Plan (SAP) to include the necessary QA/QC procedures.

   Ohio EPA would also like to specifically request that duplicates be acquired at a rate of one duplicate per 10 samples, one duplicate sample per day, and at least two duplicate samples per the entire sampling event. CSC shall revise the SAP to include this procedure.

2. Section 2.2, Sampling Locations, Page 5. CSC does not propose to collect extra soil samples. Ohio EPA would like to recommend that extra samples be collected and held in case QA/QC or other problems demonstrate the necessity for additional samples.

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3. Section 2.3, Sampling Procedure, Page 6. CSC has made several references to utilizing a photoionization detector (PID). A PID does not register the presence of semi-volatile organic compounds (SVOCs) and since the majority of the chemicals of concern (COCs) that are expected to exist in these samples are SVOCs, Ohio EPA does not understand the relevance to using this instrument. CSC shall add language in this section to clearly state that Encore samples for volatile constituents shall be taken first, prior to taking soil for screening purposes.

4. Section 2.3, Sampling Procedure, Page 6. CSC has not described waste handling procedures to be utilized during the sampling event. CSC shall revise the SAP to provide this information. CSC shall also include the process used to handle both the solid and liquid waste from the sampling event, where the waste will be disposed, how the waste will be transported, estimates of the volume of solid/liquid waste that will be generated from the sampling event, etc.

5. Section 2.4, Laboratory Analysis, Page 7. CSC has omitted an important analytical method from this section. CSC shall revise the SAP to include Method 5035 in this section.

6. Section 2.4, Laboratory Analysis, Page 7. It is unclear as to whether constituents will be removed from the list of analysis while using the specified EPA methods. CSC will analyze all samples for the appropriate list of COCs that correspond with the EPA 8260B and 8270 methods, including all 68 site specific COCs. CSC will not remove any COCs from the list of analysis for these methods.

7. Section 2.4, Laboratory Analysis, Page 7. Ohio EPA has found that the definition of "reporting limit" varies depending on the laboratory employed. As such, CSC shall revise the SAP to include a definition for reporting limit in this section.

   Also, CSC shall describe the reporting procedures in more detail. CSC shall include in the revised SAP whether results above the method detection limit will be reported and steps taken if the reporting limit is elevated above the risk level.

8. Section 2.5, Data Evaluation, Page 7. CSC describes the screening criteria as the following: "The minimum screening concentration is equal to the reporting limit. The maximum screening concentration was calculated by multiplying the existing maximum detected concentration by 1.15." CSC shall revise the screening analysis discussion in this section and all subsequent sections to demonstrate that the minimum screening criteria is the minimum detection limit and the maximum screening criteria is the maximum detected concentration. If the results from the sampling event do not correspond with these levels, then alternatives will be proposed. Until then, Ohio EPA requests that the data lists not be manipulated.

9. Section 3.2, Risk Assessment Methodology, Page 9. The first sentence in this section reads "The maximum detected concentration or Upper Confidence Limit (UCL) for each chemical of concern, except the five described below, will be divided by . . . " CSC proceeds to reference Comment 37 of the NOD dated September 4, 2003. Ohio EPA's reasoning behind Comment 37 is based on different criteria including, but not limited to, frequency of detection of these COCs and remediation/removal of the corresponding sampled soil. If these COCs are present in any samples, then these chemicals will need to be evaluated. As such, Ohio EPA requests that CSC proceed by assuming that the five COCs listed in this section will be included in the risk assessment. If all samples show that these five COCs are not detected, then they will not be included in the risk assessment as long as the criteria in Comment 37 of the NOD are met. CSC shall delete all references in the SAP that exclude the five COCs in the risk assessment.

10. Section 3.2.1, Preliminary Risk Assessment, Page 10. The first sentence of this section reads "The maximum concentration of each COC (except the five specified above) from the 165 samples shown in Table 3 . . . " Table 3 lists 170 samples from the closure. Of these 170 samples, Ohio EPA believes that 169 of these samples should be included in the risk assessment. Sample IS-02-02 did not meet QA/QC qualifications and was resampled. This sample does not need to be included in the evaluation. However, CSC has not provided an explanation on the four remaining samples omitted from the risk assessment. Ohio EPA requests that CSC explain the reasons for excluding these samples.

11. Table 1, Chemicals of Concern with GCN's. CSC does not list the units associated with the reporting limit on this table. CSC shall include this information in the revised SAP.

12. Table 1, Chemicals of Concern with GCN's. CSC has not included the five COCs that were referenced in Comment 37 of the September 4, 2003, NOD. CSC shall revise the table to include the five COCs that were omitted as explained in Section 3.2, Risk Assessment Methodology.

13. Table 2, Existing Backfill Analytical Data. Ohio EPA accepts J valued data. As such, CSC shall revise this table to show the maximum concentration under "Screening Criteria" regardless of its estimated value.

14. Table 2, Existing Backfill Analytical Data. The minimum concentration under "Screening Criteria" is not always listed as the minimum detection limit. CSC shall revise the table to show the minimum concentration under "Screening Criteria" to be the minimum detection limit.

15. Table 2, Existing Backfill Analytical Data. CSC has shown the maximum concentration under "Screening Criteria" as the maximum concentration of the COC multiplied by 1.15. CSC shall revise this column to show that the maximum concentration under "Screening Criteria" is the maximum concentration of the COC.

If the results from the sampling event do not correspond with these levels, then alternatives will be reviewed. Until then, Ohio EPA requests that the data lists not be manipulated.

Please provide a revised Sampling and Analysis Plan (SAP) within thirty (30) days of the receipt of this letter.

The revised SAP should be prepared in accordance with the following editorial protocol or convention:

1) Old Language is over-struck, but not obliterated.

2) New Language is capitalized.

3) Page headers should indicate date of submission.

4) If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

If you wish to arrange a meeting to discuss responses to this letter, please contact me at (419) 373-3065 at your convenience.

Sincerely,

Kara Reynolds

Kara Reynolds
Division of Hazardous Waste Management

/llr

pc: Erik Hagen, Ohio EPA, CO
Stephanie Beak, Ohio EPA, CO
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Kara Reynolds, Ohio EPA, NWDO
DHWM, NWDO File "Campbell Soup 2004"
Michael Maringer, Campbell Soup Company, Napoleon
Michael Kovacich, GeoTrans, Inc., Ann Arbor
Tesha Humphriss, GeoTrans, Inc., Ann Arbor

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

March 5, 2004

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Sampling and Analysis Plan Approval
Campbell Soup Supply Company, Napoleon
Former Holding Pit
OHD 005 419 171

Dear Dr. Aly:

On February 2, 2004, Campbell Soup Company submitted to the Ohio Environmental Protection Agency (Ohio EPA) a sampling and analysis plan (SAP) for the former holding pit located in Napoleon, Ohio. This document was titled *RCRA Site Closure Sampling and Analysis Plan*. Ohio EPA reviewed this document and issued comments to Campbell Soup Company on February 19, 2004. Campbell Soup Company issued a revised document titled *RCRA Site Closure Revised Sampling and Analysis Plan* on February 24, 2004.

Ohio EPA has reviewed the *RCRA Site Closure Revised Sampling and Analysis Plan* and is hereby approving the SAP. Campbell Soup Company shall notify the Ohio EPA at least five (5) days prior to beginning the field work associated with the SAP.

Sincerely,

Kara M Reynolds

Kara Reynolds
Division of Hazardous Waste Management

/lb
cc: Kara Reynolds, Ohio EPA, NWDO
DHWM, NWDO Henry County File "Campbell Soup Company, 2004"
ec: Stephanie Beak, Ohio EPA, CO
Erik Hagen, Ohio EPA, CO
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Dr. Osman M. Aly, Campbell Soup Company, Camden
Michael Maringer, Campbell Soup Company, Napoleon
Tesha Humphriss, GeoTrans, Inc., Ann Arbor
Michael Kovacich, GeoTrans, Inc., Ann Arbor

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OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

April 21, 2004

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Former Holding Pit
Soil Sampling Analytical Results from the *RCRA Site Closure Revised Sampling and Analysis Plan*
Campbell Soup Supply Company, Napoleon
OHD 005 419 171

Dear Dr. Aly:

On February 24, 2004, Campbell Soup Company (CSC) submitted to the Ohio Environmental Protection Agency (Ohio EPA) a revised sampling and analysis plan for the former holding pit located in Napoleon, Ohio. This document was titled *RCRA Site Closure Revised Sampling and Analysis Plan*. Ohio EPA approved this document on March 5, 2004. CSC completed sampling of the former holding pit on March 17, 2004 and submitted the soil sampling analytical results to Ohio EPA on April 5, 2004.

Ohio EPA has reviewed the analytical results and agrees with the conclusions provided in the cover letter. In particular, Ohio EPA believes that the data obtained from the March 17, 2004 sampling event is similar to the data used to represent the backfilled area. However, to this date Ohio EPA has not received quality assurance/quality control (QA/QC) information for the March 17, 2004 sampling event. Without this information, Ohio EPA cannot finalize conclusions on the data. Although Ohio EPA needs to review the QA/QC information before finalizing conclusions, Ohio EPA does not intend to delay the closure process further. Therefore, Ohio EPA is granting CSC permission to include the QA/QC information from the March 17, 2004 sampling event in the revised certification document.

If you wish to arrange a meeting to discuss responses to this letter, please contact me at (419) 373-3065 at your convenience.

Sincerely,

Kara Reynolds

Kara Reynolds
Division of Hazardous Waste Management

/lb
cc: Kara Reynolds, Ohio EPA, NWDO
NWDO, DHWM Henry County file "Campbell Soup Company, 2004"

ec: Erik Hagen, Ohio EPA, CO
Stephanie Beak, Ohio EPA, CO
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Michael Maringer, Campbell Soup Company, Napoleon
Michael Kovacich, GeoTrans, Inc., Ann Arbor
Tesha Humphriss, GeoTrans, Inc., Ann Arbor

Printed on Recycled Paper

Campbell SOUP Company

WORLD HEADQUARTERS
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
Fax: 856-968-2808/2809

May 19, 2004

Via Airborne Express

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
ATTN: Pamela Allen
Regulatory and Information Services Section
122 South Front Street
Columbus, Ohio 43215

And

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
ATTN: Ms. Kara Reynolds
Division of Hazardous Waste Management
347 Dunbridge Road
Bowling Green, Ohio 43402

Re: Former Holding Pit
Revised RCRA Site Closure Report
Campbell Soup Supply Company, Napoleon, Ohio
OHD 005 419 171

Dear Ms. Reynolds:

Enclosed please find a copy of a "Revised RCRA Site Closure Report" prepared by GeoTrans, Inc., an independent registered professional engineer, certifying that the facility has been closed in accordance with the specifications in the approved Closure Plan and the Revised Sampling Plan that was approved in your letter of March 5, 2004. This QA/QC information for the analytical results of the Revised Sampling Plan are included in the closure report as requested in your approval letter dated April 21, 2004.

The Revised Certification Report was prepared following the format specified in OAC rule 374-5-50-53 (D). Campbell Soup Company's Certification is attached to this letter.

We would appreciate your review and approval of closure of the site at your earliest convenience. If any additional information is needed, please contact me at (856) 968-4423 or Mike Kovacich at (734) 213-5024.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

cc: Faith Greenfield, Esq.
R. T. Shober
Carlos M. del Sol

bcc: M. Maringer
M. Kovacich (GeoTrans)

CERTIFICATION OF CAMPBELL SOUP COMPANY

(Revised RCRA Site Closure Report, Former Holding Pit, Napoleon, Ohio)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

CAMPBELL SOUP COMPANY

C. M. del Sol
Name


Signature

Vice President – Global Engineering Systems
Title

5/18/04
Date

CERTIFICATION OF CAMPBELL SOUP COMPANY

(Revised RCRA Site Closure Report, Former Holding Pit, Napoleon, Ohio)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

CAMPBELL SOUP COMPANY

C. M. del Sol
Name

Signature

Vice President – Global Engineering Systems
Title

Date

- Notice of Satisfaction of All Obligations
- Request for Termination of the Orders

APPENDIX 5

Campbell SOUP Company

Osman M. Aly, Ph.D.
Consultant

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Telephone: 856-968-4423
FAX # 856-968-2808/2809

July 18, 2002

Via Airborne Express

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
ATTN: DHWM Manager/Mr. James Moseley
347 North Dunbridge Road
Bowling Green, OH 43402

And

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste management
ATTN: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

RE: Amendments to Director's Final Finding and Orders, October 18, 2000
Campbell Soup Supply Company, L.L.C.
Campbell Soup Company
Financial Assurance for Facility Closure

Gentlemen:

Enclosed please find a Standby Trust Agreement and a Standby Letter of Credit No. P-226893 established by J. P. Morgan Chase Bank to demonstrate the establishment of financial assurance and liability coverage for closure of the former Pit areas in accordance with OAC rules 3745-55-42/3745-66-42 through 3745-55-47/3745-66-47.

The financial assurance was established in compliance with Section v.b. of the Orders.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

OMA/lgm
Attachment*

cc: F. Greenfield*
M. Maringer
R. Shober
C. del Sol
T. Skidmore

- Notice of Satisfaction of All Obligations
- Request for Termination of the Orders

APPENDIX 6

Campbell SOUP Company

WORLD HEADQUARTERS
1 Campbell Place
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Director – Environmental Affairs

Telephone#: 856-968-4423
Fax#: 856-968-2808/2809

November 14, 2000

Ohio Environmental Protection Agency
Northwest District Office
Division of Hazardous Waste Management
Attn: DHWM Manager
347 North Dunbridge Road
Bowling Green, OH 43402

and

Mr. Christopher Jones, Director
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
Attn: Manager, Compliance Assurance Section
122 South Front Street
Columbus, Ohio 43215

Re: Director's Final Findings and Orders
Campbell Soup Company
Campbell Soup Supply Company L.L.C.
October 18, 2000

Gentlemen:

Please find enclosed a copy of certified check for $80,000 in Settlement of Ohio EPA's claims for civil penalties pursuant to the above mentioned Order. The original check was forwarded to Ohio EPA as directed.

Sincerely,

CAMPBELL SOUP COMPANY

O. M. Aly/dp.

Osman. M. Aly, Ph.D.
Director – Environmental Affairs

OMA/dp
cc: F. Greenfield
att.

3029

CAMPBELL SOUP COMPANY

CERTIFIED
BY CAMPBELL F. C. U.
Payable Only as Originally Drawn
and When Properly Endorsed

55-7765/2360

11.13 ~~19~~2000

PAY TO THE ORDER OF Treasurer, State of Ohio $ 80,000.00

Eighty Thousand and ---------- 00/100 DOLLARS

Campbell Employees Federal Credit Union

By [signature]

Date 11-13-00

FOR

⑈003029⑈ ⑆236077658⑆ 7523599999996⑈

Remittance Advice | Detach Here - Please Return This Portion With Your Payment

Organization ID Information

4509
Campbell Soup Supply Co
12-773 State Route 110
Napoleon, OH 43545-

Due Date: Nov-17-2000
Amount Due: $80,000.00
Amount Enclosed: $ 80,000.00

Secondary Type/Id:

Revenue Type/Id: FOHW 171705

Make check or money order payable to "Treasurer, State of Ohio"

Remit to: Ohio EPA
Department 631
Columbus, OH 43265-0631

For Ohio EPA use only

Check ID:
Check Date:
Check Number:
Check Amount $

4509	FOHW	171705	Campbell Soup Supply Co	8000000

Campbell SOUP Company

WORLD HEADQUARTERS
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

June 28, 2004

Via Airborne Express

RECEIVED
JUL 22 2004
OHIO E.P.A.
N.W.D.O.

Ms. Tina Jennings
Ohio Environmental Protection Agency
Compliance Assurance Section
Lazarus Government Center
122 S. Front Street
Columbus, Ohio 43215

RE: Former Holding Pit – Napoleon, Ohio
EPA I.D. No.: OHD: 005 419 171
Request for Release of Financial Assurance Mechanism

Dear Ms. Jennings:

The Ohio EPA issued a Final Closure Certification Approval letter dated June 11, 2004, indicating that Campbell Soup Company has closed the above site according to the approved closure plan and Ohio Administrative Code (OAC) rules 3745-66-11 through 3745-66-15, as required by the Director's Final Findings and Orders of October 18, 2000. The letter also indicated that Campbell is no longer subject to the final assurance requirements for closure or liability coverage.

Therefore, we request the release of the following documents:

1. Irrevocable Standby Letter of Credit No. P-226893 for closure or post closure care.
2. Standby Trust Agreement for Bodily Injury and Property Damage;
3. Irrevocable Standby Letter of Credit No. P-226892 for the Bodily Injury and Property Damage;

4. Standby Trust Agreement for Closure or Post-Closure Care.

Please forward the released documents to:

Ms. Jo Anne Osborn
J. P. Morgan Trust Company, N.A.
One Oxford Center
301 Grant Street
Suite 1100
Pittsburgh, PA 15219

Please call me at 856 968-4423 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

OMA/lgm

Cc: Mark Migliaccio
Kara Reynolds
Faith Greenfield
Robert Shober

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

June 11, 2004

CERTIFIED MAIL

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Final Closure Letter for Non-Permitted Facilities
Campbell Soup Supply Company, Napoleon
OHD 005 419 171

Dear Dr. Aly:

On August 1, 2002, Ohio EPA approved the closure plan for the former hazardous waste holding pit located at Campbell Soup Supply Company, 1273 State Route 110, Napoleon, Ohio, 43545.

On May 20, 2004, May 25, 2004, and June 1, 2004, the director received final certification documents from Dr. Osman M. Aly, Environmental Coordinator for Campbell Soup Company. C. M. Del Sol and Daniel L. Morgan certified that the former holding pit has been closed according to the specifications in the approved closure plan. The type of closure was clean closure via risk assessment.

To verify Campbell Soup Supply Company's closure activities, Kara Reynolds from Ohio EPA's Northwest District Office, conducted a final inspection of the former holding pit on June 9, 2004. She also reviewed documents pertaining to the closure of the unit and determined that the activities proposed in the closure plan were conducted adequately.

Based on this inspection and review, Ohio EPA has determined that Campbell Soup Supply Company has closed the former holding pit according to the approved closure plan and Ohio Administrative Code (OAC) rules 3745-66-11 through 3745-66-15.

Although Campbell Soup Supply Company has satisfied its closure obligations under Ohio's hazardous waste laws for the former holding pit, Campbell Soup Supply Company is still required to investigate and possibly clean up contamination of hazardous waste or constituents at the facility, despite the time at which the waste was placed in the unit. This obligation to investigate and possibly clean up contamination from past activities is also known as RCRA Corrective Action.

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Our records show that Campbell Soup Supply Company used a letter of credit to demonstrate compliance with the state's hazardous waste financial assurance requirements for closure and liability coverage. Because there are no other units at the facility that require closure, Campbell Soup Supply Company is no longer subject to the financial assurance requirements for closure or liability coverage. However, the director will issue a separate letter releasing the financial assurance mechanism.

There are no other units at this facility that require closure. Campbell Soup Supply Company will maintain the status of conditionally exempt small quantity generator of hazardous waste.

If you have any questions concerning the closure process or the status of the facility, please contact Kara Reynolds by phone at (419) 373-3065, or by mailing address at Ohio EPA, Northwest District Office, Attn: Kara Reynolds, 347 North Dunbridge Road, Bowling Green, Ohio 43402.

Sincerely,

Michael Terpinski
Environmental Supervisor
Division of Hazardous Waste Management

/llr

pc: Pamela Allen, Manager, RISS, CO,
Ed Lim, Manager, ERAS, CO,
Harry Sarvis, Manager, CAS, CO,
Harriet Croke, U.S. EPA - Region V
Michael Terpinski, NWDO, Ohio EPA
Don North, DHWM-NWDO
Kara Reynolds, DHWM- NWDO
NWDO, DHWM File "Campbell Soup Company, 2004"
Michael Maringer, Campbell Soup Supply Company

ec: Jeremy Carroll, Supervisor, ERAS,
Stephanie Beak, Supervisor, ERAS
Erik Hagen, ERAS
Jeff Patzke, DDAGW, CO
John Weaver, DDAGW-NWDO
Michael Kovacich, Geo Trans, Inc., Ann Arbor
Tesha Yielding, Geo Trans, Inc., Ann Arbor
Eric Getz, DHWM-NWDO



SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

DR. OSMAN M. ALY
ENVIRONMENTAL COORDINATOR
CAMPBELL SOUP CO.
1 CAMPBELL PLACE
CAMDEN, N.J. 08103-1799

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☒ Agent ☐ Addressee

B. Received by (*Printed Name*) J TORRES
C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
if YES, enter delivery address below: ☒ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. 7003 2260 0007 6056 3661

PS Form 3811, August 2001 Domestic Return Receipt 2ACPRI-03-P-4061

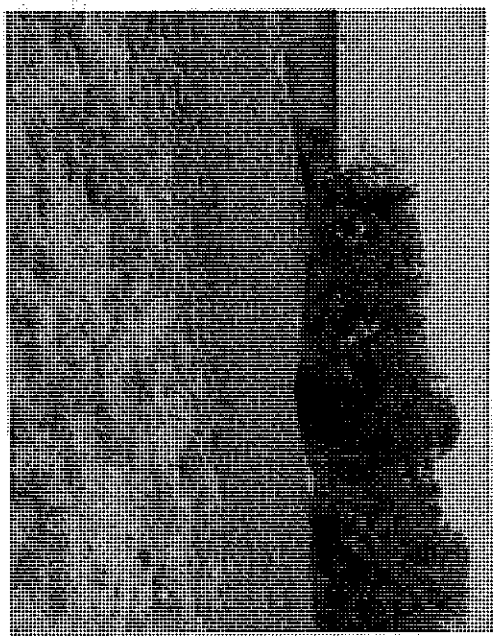
From: Kara Reynolds
To: mkovacich@geotransinc.com
CC: osman_aly@campbellsoup.com; Terpinski, Michael
Date: 6/9/2004 1:44 PM
Subject: Closure Certification
Attachments: MVC-008F.JPG; MVC-001S.JPG; MVC-002S.JPG; MVC-003S.JPG; MVC-004S.JPG; MVC-005S.JPG; MVC-006F.JPG; MVC-007F.JPG

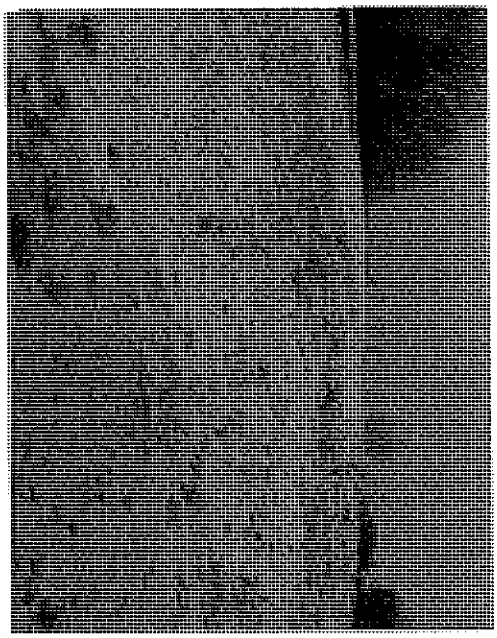
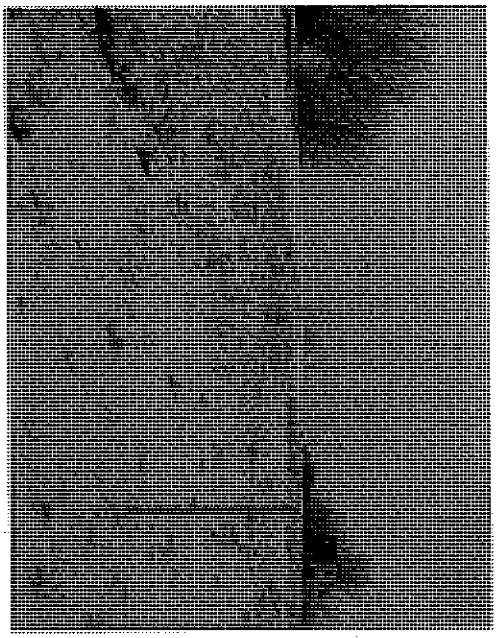
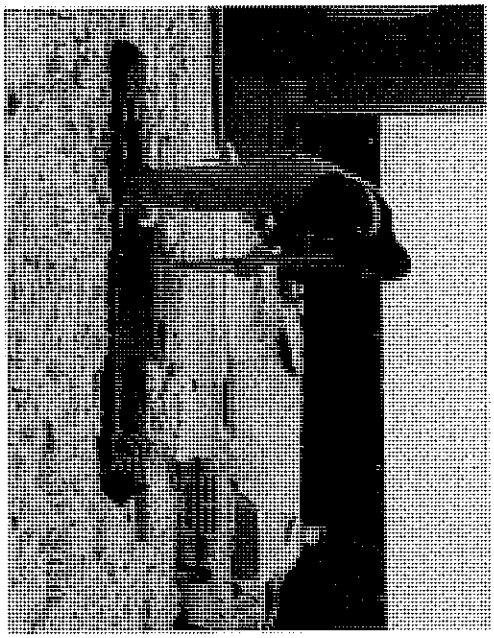
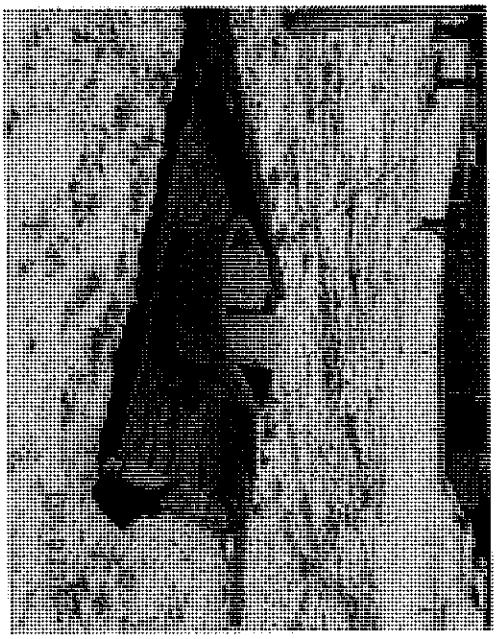
Mike,

I just wanted to let you know that the certification inspection went well today. As you requested, attached are pictures from today along with pictures from the March 17, 2004 sampling event.

Enjoy!
Kara

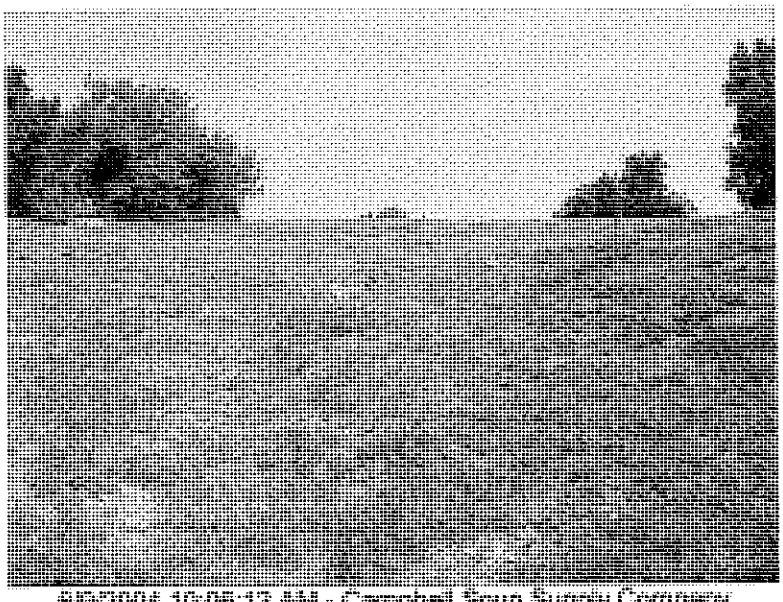
Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us



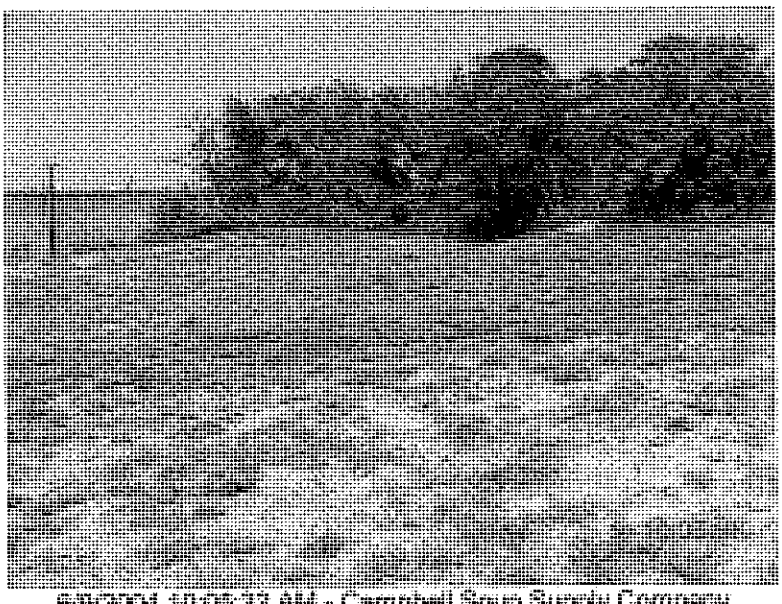







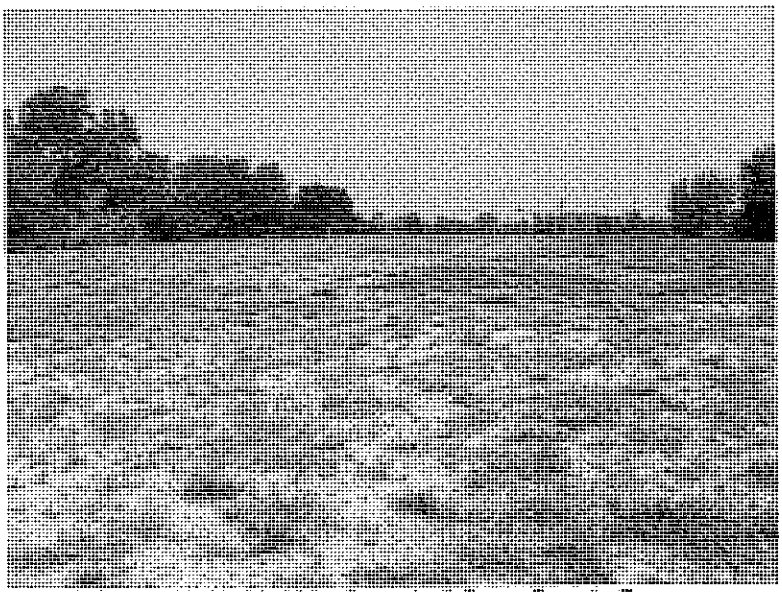
Campbell Soup Supply Company Closure Certification Inspection



6/9/2004 10:05:12 AM - Campbell Soup Supply Company Certification Inspection. Looking northwest at the former holding pit unit.



6/9/2004 10:05:32 AM - Campbell Soup Supply Company Certification Inspection. Looking southwest at the former holding pit unit.



6/9/2004 10:05:20 AM - Campbell Soup Supply Company Certification Inspection. Looking west at the former holding pit unit.

1273 State Route 110
Napoleon, OH 43545
OHD 005 419 171



Pictures from 3-17-2004 Sampling and closure certification inspection on 6-9-2004

Henry Co
"Campbell Soup
Company 2004"

6-9-2004

APPENDIX II

TIER I CHECKLIST

Data Validation Plan Review Form
Tier I

This Plan Review Form is #	1	of	2	forms completed in the review of this certification report.

Facility Name	Campbell Soup Supply Company	Validator/DO	Kara Reynolds
ID Number	OHD 005 419 171	Date of Plan	Dated May 18, 2004 received by OEPA on May 20, 2004. Subsequent submittals on Maay 25, 2004 and June 1, 2004.
Date Review of Plan Completed		Plan is: New, Amended, Revised	Revised
Document Title:	RCRA Site Closure Revised Certification Report		
Lab Name: Brighton Analytical LLC	Media Type(s): Soil	Analyses Requested: SVOCs, VOCs	Notes:

Note: The criteria used in the Tier I Data Validation checklist are derived mostly from SW-846 methods and U.S. EPA's National Functional Guidelines (NFGs). Criteria from methods are considered preferable as they are specific to that procedure. Where the method is silent, criteria from the NFGs, or other sources when necessary, are adopted. For flashpoint (which uses ASTM methods dictated by the OAC rules), ASTM method criteria are used.

The Tier I data validation manual is the primary reference for this checklist. It explains and gives examples for the questions in this checklist. The Tier II methodology and terminology builds on that established in the Tier I checklist and its associated data validation manual. There is no Tier II manual, only the checklist and completed example checklists. Additional information is also available by referring to the specific methods.

Data Qualifiers and their meanings used throughout the Tier I Checklist	
J	Estimated
J+	Estimated High (results are likely reported higher than the true value)
J-	Estimated Low (results are likely reported lower than the true value)
R	Rejected
UJ	Undetected Estimated
NJ	Tentatively Identified, Quantitation Estimated

Section 1.0
Report Completeness and Technical Holding Times

1.1	Sample Package Completeness and Deliverables	
	Completeness **This section provides a checklist of important components of data reports. If the report is incomplete, it may be necessary to halt data validation procedures until all the missing information is provided. Please, refer to the Tier I data validation manual for additional assistance in completing the checklist.**	
1.1.1	Describe any discrepancies between the Chain Of Custody (COC) record and submitted sampling data. *Action: If there are discrepancies, contact the laboratory for any missing deliverables and/or an explanation.*	No discrepancies exist.
1.1.2	Is a signed statement from the laboratory present that attests to the validity of the data? *Action: Take no further action and contact the facility and have the lab submit a valid data report. If no response, qualify all data as unuseable.*	Yes.
1.1.3	Is a case narrative present that summarizes QA/QC discrepancies and/or other problems? *Action: No action is necessary, but this information is useful to focus data validation efforts.*	Yes. No problems present with the data.
1.1.4	Are COC forms present for all samples? *Action: If not contact the facility for replacement of missing or illegible copies*	Yes. All samples are accounted for.
1.1.5	Do the COC forms, Sample Receipt form, or the Case Narrative indicate any problems with the sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data? *Action: Use the information to focus data validation efforts.*	No.
1.1.6	Are Custody Seals present and intact?	No.

1.1	Sample Package Completeness and Deliverables	
1.7	Is a sample receipt form present? If so, does it contain information on condition of sample containers, proper preservatives used (cross-check with COC) and temperature of the cooler? Note any comments or abnormal conditions. Action may be taken for the following special conditions:	No sample receipt form but the COCs and case narrative do not show any problems with the sample containers, preservatives used, or temperature of the cooler.
A.	For samples analyzed for volatiles that were not properly cooled (temperature more than 10°C), all positive results should be qualified as "J" and all non-detects qualified as "UJ."	Cooler temperature was at 4 C.
B.	For all Volatile Organic Compound (VOC) samples or vials with air bubbles (>2 mm), positive results should be qualified as "J" and non-detects as "UJ" or "R" depending on professional judgment (regarding other quality control information such as sample cooler receipt temperature and other site-specific data quality objectives).	No bubbles noted, samples were of soil.
C.	If aqueous samples for VOCs were not preserved, check that technical holding times were met (see Technical Holding Times, Table 1). If not, qualify all associated sample results.	N/A
D.	If liquid TCLP samples were preserved, qualify all associated results as "R."	N/A

Sample ID	Lab ID	Matrix	Sample Date	Date Received by the Lab	Parameter	Extraction Date	Preparation Date	Analysis Date	QA/QC Data Present[A]	Batch ID#
PB-04-59 0.5-1	BE08123	Solid	3/17/2004	3/18/2004	VOCs	3/18/2004	3/19/2004	3/28/2004	Yes	71551
				3/18/2004	SVOCs	3/18/2004	3/19/2004	3/24/2004	Yes	71551
PB-04-63 0.5-1	BE08127	Solid	3/17/2004	3/18/2004	VOCs	3/18/2004	3/19/2004	3/28/2004	Yes	71551
				3/18/2004	SVOCs	3/18/2004	3/19/2004	3/24/2004	Yes	71551

A: Batch specific QA/QC requirements for Tier I data validation for Organic Data consists of Blank Data Matrix Spike/Matrix Spike Duplicate data, and surrogate data. For Inorganic Data the QA/QC data includes a Matrix Spike and it's duplicate and blank data. Additional QA/QC data may include ICP serial dilution results and post-digestion

spike data.

Note: To fill out this table, list one sample ID# then list all sample parameters on one line each with their associated analysis dates, batch ID#s, etc.(*e.g.,* put mercury on a separate line from the other metals since it will have its own prep. dates, analysis dates, and batch ID#s).

1.2 Technical Holding Times

Table 1

Technical Holding Times for Volatile, Semi-Volatile, Metals and pH Samples

Technical holding time is the time, in days, from sample acquisition in the field to either laboratory preparation or analysis. Technical holding times are established from information contained in the laboratory report, chain of custody, and raw analytical bench sheets (if available). Technical holding times also depend upon whether samples were preserved. The recommended technical holding times for volatile compounds, semi-volatile compounds, metals, and TCLP analyses are listed below.

	Preserved	From field collection to extraction	from extraction to preparation	From extraction to analysis	Max Holding Times	Common preservative
VOCs (8260) (aqueous)	Yes	NA	NA	14 days	14 days	Cool to 4° C, HCl
VOCs (8260) (aqueous)	No	NA	NA	7 days	7 days	Cool to 4° C
VOCs (8260) (liquid waste)	No	NA	NA	14 days	14 days	Cool to 4° C
VOCs (8260) (solid/soil/waste)	No	NA	NA	NA	14 days	Cool to 4° C or no preservative
VOCs (EnCore) (5035/8260) (solid/soil/waste)	Yes	2 days	NA	12 days	14 days	Encore Sampler
SVOC(8270)	Yes	7 days	NA	40 days	47 days	Cool to 4° C
Total Metals (6010B/7000)	Yes	NA	NA	180 days	180 days	Nitric Acid (pH<2- aqueous); cool to 4° C - solid samples
Mercury (7470A)	Yes	NA	NA	28 days	28 days	Nitric Acid (pH<2- aqueous); cool to 4° C - solid samples
TCLP VOCs (1311/8260)	No	14 days	NA	14 days	28 days	no preservative
TCLP SVOCs (1311/8270)	No	14 days	7 days	40 days	61 days	no preservative
TCLP Metals (except mercury) (1311/6010B)	No	180 days	NA	180 days	360 days	no preservative

	Preserved	From field collection to extraction	from extraction to preparation	From extraction to analysis	Max Holding Times	Common preservative
TCLP mercury (1311/7470A)	No	28 days	NA	28 days	56 days	no preservative
pH (9040B)	No	24 hours	NA	NA	1 day	no preservative

1.2 Technical Holding Times

Technical Holding Times

Technical holding times are an important component of assuring that data is valid and not biased from inappropriate handling procedures. Technical holding times are judged by examining the length of time from field sampling to extraction and to analysis. There are specific technical holding time requirements for specific classes of compounds. In addition, holding times may vary due to the presence or absence of preservatives. The validator should refer to specific criteria for holding times listed in Table 1 and in the Tier I Data Validation Manual. Use information on sampling, extraction and analysis dates documented in section 1.0 to determine whether technical holding times are in compliance with criteria listed in Table 1. Complete the following table to determine if any violations of technical holding time exist, and qualify all associated sampling data.

1.2 Technical Holding Times - Volatile Organic Compounds	
1.2.1 Are samples properly preserved? Check preservation requirements, chain of custody, and sample receipt form for discrepancies. *Action: Note improprieties and use the information to qualify results.*	List impropriety(-ies): Yes.
1.2.2 If samples were improperly preserved, or unpreserved, and the technical holding times were exceeded, qualify all positive results for affected samples as "J" and all non-detected results as "UJ."	List sample ID(s):N/A
1.2.3 If samples were properly preserved, but technical holding times were exceeded, qualify all positive results for affected samples as "J" and all non-detected results as "UJ."	List sample ID(s):N/A
1.2.4 If technical holding times are greatly exceeded (> 2x the time requirement) upon analysis or re-analysis then the validator may use professional judgement to qualify all non-detected compounds as "R" and all positive results as "J."	List sample ID(s):N/A

1.2 Technical Holding Times - Semi-Volatile Organic Compounds		
1.2.5	If technical holding times are exceeded (Table 1), qualify all positive results for affected samples as "J" and all non-detected results as "UJ."	List sample ID(s):N/A
1.2.6	If technical holding times are greatly exceeded (> 2x the time requirement), the validator may use professional judgement to qualify all non-detected compounds as "R" and all positive results as "J."	List sample ID(s):N/A

1.2 Technical Holding Times - Inorganic Compounds		
1.2.7	Are samples properly preserved (4°C for solids; acid preservation for aqueous samples)? Check preservation requirements, chain of custody, and sample receipt form for discrepancies. *Action: Note any impropriety, and use the information to qualify results.*	List impropriety(-ies):N/A
1.2.8	If samples were improperly preserved and the technical holding times were exceeded (Table 1), qualify all positive results for affected samples as "J" and all non-detected results as "UJ."	List sample ID(s):N/A
1.2.9	If samples were properly preserved, but technical holding times exceeded, qualify all positive results for affected samples as "J" and all non-detected results as "UJ."	List sample ID(s):N/A
1.2.10	If technical holding times are greatly exceeded (> 2x the time requirement), the validator may use professional judgement to qualify all non-detected compounds as "R" and all positive results as "J."	List sample ID(s):N/A

1.2 Technical Holding Times - pH		
1.2.11	If technical holding times are exceeded the validator may use professional judgement to qualify data as "R" or "J."	List sample ID(s):N/A

Section 2.0
VOC Data Validation

2.0 VOC Analysis Data Validation	
2.1 Blank Data Summary Review - Volatile Organic Compounds	
Blank Data **Laboratory blanks are used to assess whether contamination from the laboratory, reagents, or other samples exists and whether this contamination can bias sample results. The qualification of sample results will depend upon the magnitude of blank contamination.**	
2.1.1 Is the method blank summary data present for each batch (method and matrix), including TCLP? *Action: If not present, request information from the facility. If the required method blanks were not analyzed, sample results may be qualified as "J," for positive results and "UJ," for non-detected compounds. Qualification should take into account other QA/QC information.*	Yes.
2.1.2 Is there an indication that the samples associated with that blank were diluted? **Note: The dilution factor can be found in the data report (a dilution factor of 1 indicates no dilution).**	List the dilution factor(s):No dilution
2.1.3 Do any field/trip/rinsate blanks have any positive results for any volatile target analyte? **Note: A list of samples associated with each of the contaminated blanks should be prepared. Field blank results should be used to qualify data. Trip blanks are used to qualify samples based on potential contamination during shipment, and are not required for non-aqueous matrices.** *Action: Follow the directions in the table below to qualify sample results due to contamination. Use the largest value from all of the associated blanks. If any blanks are grossly contaminated, all data associated should be qualified as "R."*	No.
2.1.4 Do any method blanks for VOCs have positive results for any volatile target analytes? Follow the directions in the table below. **Note: When applied, the contaminant concentration in these blanks are multiplied by the same dilution factor and corrected for % moisture if necessary.**	Yes. Toluene. It was re ran and found to be in the blank so the toluene in the samples was determined to be a false positive by the laboratory.

For Common Volatile Contaminants: methylene chloride, acetone, 2-butanone	For Other Contaminants:	Action:
Sample Conc. > Detection Limit but < 10x Blank Result	Sample Conc. > Detection Limit but < 5x Blank Result	Identify the sample result "U" undetected
Sample Conc. < Detection Limit & < 10x Blank Result	Sample Conc. < Detection Limit & < 5x Blank Result	Report the detection limit and qualify result "UJ" estimated undetected
Sample Conc. > Detection Limit & > 10x Blank Result	Sample Conc. > Detection Limit & > 5x Blank Result	No qualification is necessary

2.2 Volatile Organic Data Review - Laboratory Control Sample (LCS)	
Laboratory Control Sample **An LCS should be included with each batch of samples (approximately 20). The LCS consists of an aliquot of a clean (control) matrix similar to the matrix type of the sample and at the same weight or volume. The LCS is spiked with the same analytes at the same concentration as the matrix spike. When the results of the matrix spike indicate a potential problem due to the sample matrix itself, the LCS verifies that the laboratory can perform analyses in a clean matrix (Method 8260B).**	
2.2.1 Was an LCS prepared, extracted, analyzed and reported once per group of 20 samples? **Note: This information should be included in the QA package provided by the lab. If not, contact the laboratory and request that the information be submitted to the agency. This information should be found in the injection log.** *Action: If LCS information cannot be found, consult the facility for re-submittal of the data package. If LCS information is not present, qualify all positive results as "J." If warranted, the Data Validator may reject all results as unacceptable.*	Yes.
2.2.2 Does the LCS contain the following volatile target compounds in addition to the required surrogates: 1,1-Dichloroethene Trichloroethene Chlorobenzene Toluene Benzene **Note: Method 8260B calls for the LCS to be spiked at the same level as the matrix spike. When the results of the matrix spike indicate a problem due to sample matrix, the LCS should be checked to determine whether the laboratory can perform the analysis on a clean matrix.**	N/A
2.2.3 Do the percent recoveries (%R) meet the QC limits provided by the lab? *Action: If the LCS recovery is greater than the upper acceptance limit, then positive sample results for the affected compound(s) should be qualified as "J."* *If the mass spectral criteria are met, but the LCS recovery is less than the lower acceptance limit, then the associated detected target compounds should be qualified as "J," and the associated non-detected target compounds should be qualified as "R."* *If more than half of the compounds in the LCS are not within the recovery criteria, then all of the associated detected target compounds should be qualified as "J," and all associated non-detected compounds should be qualified as "R."*	List compounds and sample IDs that do not meet QC limits: Yes.

2.2 Volatile Organic Data Review - Laboratory Control Sample (LCS)	
2.2.4 Verify the calculations for at least one %R. *%R = found/true X100* *Action: If the %R is not calculated correctly, verify the other %R calculations and/or contact the lab for re-submittal. If the re-calculated %R values fall within the QC limits, the validator should use professional judgement to determine if the lab should be contacted for re-submittal or if the data should be flagged.*	Pg 36. 48/50 * 100 = 96% Done correctly

2.3 Quality Assurance Summary Review - Matrix Spike/Matrix Spike Duplicates, VOC	
Matrix Spike/Matrix Spike Duplicates **Matrix spike and matrix spike duplicates are performed to assess method precision for VOC and SVOC analyses. Matrix spikes and duplicates are required for every batch of samples (every 20 - 30 samples). The validator should be aware that the MS/MSD are batch specific, not sample specific. For example, the MS/MSD information may be any sample in the batch, but not necessarily a sample being validated. Because of this, matrix spike and matrix spike duplicate data alone usually aren't used to qualify results, but the information is used with other QA/QC data to qualify data.**	
2.3.1 Is matrix spike/matrix spike duplicate recovery data present? *Action: If any matrix spike data is missing, the laboratory should be contacted for a re-submittal.*	Yes.
2.3.2 How many VOC spike recoveries are outside the QC limits?	Record the spike recovery and control limits:Zero
2.3.3 How many RPDs for matrix spike and matrix spike duplicate recoveries are outside the QC limits for VOCs? **Note: The MS/MSD results may be used in conjunction with other QC criteria to determine the need for data qualification. Outliers should be identified.**	Record the recovery data out of criteria and control limits. Review surrogate and LCS data to determine if qualifiers are necessary:None.

2.4 VOC Surrogate Recovery

VOC Surrogate Compound Recovery

Surrogate compounds are spiked compounds of known composition that are added to samples and blanks. The recovery of surrogate compounds allows an assessment of matrix interference. VOC surrogate recoveries are used with other QA/QC data to qualify sample results and to justify laboratory re-analysis. Specific examples are listed in the data validation guidance document.

Surrogate Compound	Water [a]	Soil/Sediment [a]
4-Bromofluorobenzene	86-115	74-121
Dibromofluoromethane	86-118	80-120
Toluene-d_8	88-110	81-117
1,2-Dichloroethane-d_4	80-120	80-120

Other Common VOC Surrogates
1,2-Dichlorobenzene-d_4
Pentafluorobenzene
Fluorobenzene

[a] SW-846 Method 8260B, Table 8. Acceptance criteria is guidance.

2.4.1 Are the surrogate recovery data present for each batch (method and matrix), including TCLP? **Note: Samples may be included in separate sample batches and separate surrogate recoveries should be provided.** *Action: If no, contact the laboratory for explanation and re-submittals.*	Yes.
2.4.2 Were any outliers marked correctly (based upon the laboratory's criteria)? *Action: Mark, circle or highlight the suspected outliers.*	List the sample ID(s), matrix(-ces) and parameter(s):Yes.
2.4.3 If any surrogate compound was out of compliance was re-analysis performed to confirm a matrix interference? **Note: Check the report narrative for an indication of re-analysis. Additionally, qualification may not be appropriate for TCLP data. Best professional judgement may be used to qualify data.** *Action: If a surrogate is above the upper control limit, all positive results should be qualified as "J." Results listed as non-detected should not be qualified.* *If any surrogate recovery is less than the lower criteria, but greater than or equal to 10% recovery, all detected compounds should be qualified as "J" and all non-detected compounds as "UJ."* *If any surrogate recovery is less than 10%, all detected compounds should be qualified as "J" and all non-detected compounds as "R."*	List sample ID(s) for surrogate compounds out of compliance and criteria: Yes.

Section 3.0
SVOC Data Validation

3.0 SVOC Analysis Data Validation	
3.1 Blank Data Summary Review - Semi-Volatile Compounds	
Blank Data **Laboratory blanks are used to assess whether contamination from the laboratory, reagents, or other samples exists and whether this contamination can bias sample results. The qualification of sample results will depend upon the magnitude of blank contamination.**	
3.1.1 Is the method blank summary data present for each batch (method and matrix), including TCLP? *Action: If not present, request information from the facility. If information exists that the required method blanks were not analyzed, then sample results may be qualified as "J," for positive results and "UJ" for non-detected compounds. Qualification should take into account other QA/QC information.*	Yes.
3.1.2 Is there an indication that samples, associated with that blank, were diluted? **Note: The dilution factor can be found in the data report (a dilution factor of 1 indicates no dilution).**	List the dilution factor(s):No
3.1.3 Do any field/rinsate blanks have any positive results for any semi-volatile target analyte? **Note: A list of samples associated with each of the contaminated blanks should be prepared. Field blank results should be used to qualify data. Trip blanks are used to qualify only samples based on shipment and are not required for non-aqueous matrices.** *Action: Follow the directions in the table below to qualify sample results due to contamination. Use the largest value from all of the associated blanks. If any blanks are grossly contaminated, all data associated should be qualified as "R."*	No
3.1.4 Do any method blanks for SVOCs have positive results for any semi-volatile target analytes? Follow the directions in the table below. **Note: When applied, the contaminant concentration in these blanks are multiplied by the same dilution factor and corrected for % moisture if necessary.**	No.

For Common Semi-Volatile Contaminants: Phthalate esters	**For Other Contaminants:**	**Action:**
Sample Conc. > Detection Limit but < 10x Blank Result	Sample Conc. > Detection Limit but < 5x Blank Result	Identify the sample result "U" undetected
Sample Conc. < Detection Limit & < 10x Blank Result	Sample Conc. < Detection Limit & < 5x Blank Result	Report the detection limit and qualify result "UJ" estimated undetected
Sample Conc. > Detection Limit & > 10x Blank Result	Sample Conc. > Detection Limit & > 5x Blank Result	No qualification is necessary

3.2 Semi-Volatile Data Review - Laboratory Control Sample (LCS)	
Laboratory Control Sample **An LCS should be included with each batch of samples (approx. 20). The LCS consists of an aliquot of a clean (control) matrix similar to the matrix type of the sample and at the same weight or volume. The LCS is spiked with the same analytes at the same concentration as the matrix spike. When the results of the matrix spike indicate a potential problem due to the sample matrix itself, the LCS verifies that the laboratory can perform analyses in a clean matrix (Method 8270C).**	
3.2.1 Was an LCS prepared, extracted, analyzed and reported once per group of 20 samples (per batch)? **Note: This information should be included in the QA/QC package provided by the lab. If not, contact the laboratory and request that the information be submitted to the agency.** *Action: If LCS information is not present, consult the facility for re-submission of the data package. If LCS information is not available, qualify all positive results as "J." If warranted, the Data Validator may reject all results.*	Yes.
3.2.2 Does the LCS contain the following semi-volatile target compounds in addition to the required surrogates? Base/Neutrals 1,2,4-Trichlorobenzene Acenaphthene 2,4-Dinitrotoluene Pyrene N-Nitroso-di-n-propylamine 1,4-Dichlorobenzene Acids Pentachlorophenol Phenol 2-Chlorophenol 4-Chloro-3-methylphenol 4-Nitrophenol **Note: Method 8270C calls for base/neutral compounds to be spiked at 100 µg/L and acid compounds to be spiked at 200 µg/L. However, for waste samples the concentration should be 5 times higher.**	Yes.
3.2.3 Do the percent recoveries (%R) meet the QC limits provided by the lab? *Action: If the LCS recovery is greater than the upper acceptance limit, then positive sample results for the affected compound(s) should be qualified as "J."* *If the mass spectral criteria are met, but the LCS recovery is less than the lower acceptance limit, then the associated detected target compounds should be qualified as "J," and the associated non-detected target compounds should be qualified as "R."* *If more than half of the compounds in the LCS are not within the recovery criteria, then all of the associated detected target compounds should be qualified as "J," and all associated non-detected compounds should be qualified "R."*	**List compounds and sample IDs that do not meet QC limits:** **Yes.**

3.2 Semi-Volatile Data Review - Laboratory Control Sample (LCS)	
3.2.4 Verify the calculations for at least one %R. *%R = found/true X100* *Action: If the %R is not calculated correctly, verify the other %R calculations and/or contact the lab for re-submission. If the recalculated %R values fall within the QC limits, the Data Validator should use professional judgement to determine if the lab should be contacted for re-submission or the data should be flagged.*	Pg 37 53/50 * 100% = 106% Done Correctly

3.3 Quality Assurance Summary Review - Matrix Spike/Matrix Spike Duplicates, SVOC	
Matrix Spike/Matrix Spike Duplicates **Matrix spike and matrix spike duplicates are performed to assess method precision for VOC and SVOC analyses. Matrix spikes and duplicates are required for every batch of samples (every 20 - 30 samples). The validator should be aware that the MS/MSD are batch specific, not sample specific. For example, the MS/MSD information may be any sample in the batch, but not necessarily a sample being validated. Because of this, matrix spike and matrix spike duplicate data alone usually aren't used to qualify results, but the information is used with other QA/QC data to qualify data.**	
3.3.1 Is matrix spike/matrix spike duplicate recovery data present? *Action: If any matrix spike data is missing, the laboratory should be contacted for a re-submittal.*	Yes.
3.3.2 How many SVOC spike recoveries are outside the QC limits?	Record the spike recovery and control limits:Zero.
3.3.3 How many RPDs for matrix spike and matrix spike duplicate recoveries are outside the QC limits for SVOCs? **Note: The MS/MSD results may be used in conjunction with other QC criteria to determine the need for data qualification. Outliers should be identified.**	Record the recovery data out of criteria and control limits. Review surrogate and LCS data to determine if qualifiers are necessary:None

3.4 SVOC Surrogate Recovery	
SVOC Surrogate Compound Recovery **Surrogate compounds are spiked compounds of known composition that are added to samples and blanks. The recovery of surrogate compounds allows an assessment of matrix interference. SVOC analyses include compounds that can be divided into two classes: acid compounds and base/neutral compounds. Each class has a specific assigned set of surrogate compounds. The list of compounds can be found in the data validation guidance manual or SW-846, Method 8270. Data validation is also based upon the type of compound being analyzed. SVOC surrogate recoveries also are used to justify re-analysis to confirm matrix interference, but the number of surrogate compounds out of compliance will justify qualification. Specific examples are listed in the data validation guidance document.** **Surrogate Compound** — **Fraction** **phenol-d_6** — **Acid** **2-fluorophenol** — **Acid** **2,4,6-tribromophenol** — **Acid** **nitrobenzene-d_5** — **Base/Neutral** **2-fluorobiphenyl** — **Base/Neutral** **p-terphenyl-d_{14}** — **Base/Neutral**	
3.4.1 Are the surrogate recovery data present for each batch (method and matrix), including TCLP? **Note: Samples may be included in separate sample batches and separate surrogate recoveries should be provided.** *Action: If no, contact the laboratory for explanation and re-submittals.*	Yes.
3.4.2 Were any outliers marked correctly? *Action: Mark, circle or highlight the suspected outliers.*	List the sample ID(s), matrix(-ces) and parameter(s):Yes.
3.4.3 If any TWO surrogate compounds in either the acid or base/neutral classes were out of compliance, was re-analysis performed to confirm a matrix interference? **Note: Check the report narrative for an indication of re-analysis.** *Action: If no information is present, request information from the facility.*	List sample ID(s) for surrogate compounds out of compliance and criteria: Yes. They were re ran example vial 8124.
3.4.4 If any ONE surrogate compound has a recovery of less than 10% in either the acid or base/neutral classes, check for indications that re-analysis was performed to confirm a matrix interference? **Note: Check the report narrative for an indication of re-analysis.**	List sample ID(s) for surrogate compounds out of compliance and criteria:Yes.

3.4 SVOC Surrogate Recovery	
3.4.5 Based on the findings, qualify data in either the acid or base/neutral classes with the following criteria: **Note: Qualification may not be appropriate for TCLP data. Best professional judgement may be used to qualify data.** *Action: If TWO surrogates in a particular class are above the upper control limit, all positive results, for that fraction, in that class should be qualified as "J." Results listed as non-detected should not be qualified.* *If any TWO surrogates in a particular class have recoveries less than the lower criteria, but the recovery is greater than or equal to 10%, all detected compounds, for that fraction, should be qualified as "J" and all non-detected compounds as "UJ."* *If any surrogates in a particular class have recoveries less than 10%, all detected compounds, for that fraction, should be qualified as "J" and all non-detected compounds as "R."*	List the ID(s) of the affected sample(s):No qualification necessary. The samples were re analyzed correctly.

Section 4.0
Metals Data Validation

4.0 Metals Analysis Data Validation	
4.1 Blank Data Summary Review - Metals Data	
Blank Data **Laboratory blanks are used to assess whether contamination from the laboratory, reagents, or other samples exists and whether this contamination can bias sample results. The qualification of sample results will depend upon the magnitude of blank contamination.**	
4.1.1 Is the method/prep blank summary data present for each batch (method and matrix), including TCLP? *Action: If not present, request information from the facility. If the required method blanks were not analyzed, sample results may be qualified as "J" for positive results and "UJ" for non-detected compounds. Qualification should take into account other QA/QC information.*	Metals not analyzed/
4.1.2 If metals are detected in the blank, record the IDs of the affected samples and those metals detected above the detection limit in the blank and all positive results from the samples. Attach this summary page to this checklist. *Action: Positive sample results that are greater than the detection limit but less than 5 X the blank results should be qualified as "UJ." If the blank is severely contaminated, the corresponding positive sampling results may be qualified as "R."*	N/A
Blanks- Mercury	
4.1.3 Was a Method blank included per batch and were the results below the reporting limit or the CRDL (for CLP labs)?	N/A
4.1.4 Did any Method Blanks contain concentrations of mercury above reportable levels? Were these flagged? **Note: If mercury is discovered in the method blank above the reporting limit, the lowest concentration of any sample in that batch must be 10 times the method blank concentration. If this is not the case, all samples in that batch should have been re-digested and re-analyzed.** *Action: Review the blank data. If the sample results are positive but less than 5 times the concentration in the blank, the results should be qualified as "U".* *If the sample results are positive and greater than 5 times the blank concentration, but less than 10 times the blank concentration, the results should be qualified as "J".*	N/A

4.2 Metal Spike Recovery	
Metal Spike Recovery **Spikes are elements of known composition that are added to blanks and to samples that measure accuracy and precision of the analyses. At least one spike (termed a matrix spike or prep spike) should be included for each batch of samples. Spike recovery criteria listed in this section are determined from U.S. EPA's National Functional Guidelines for Inorganic Data Review. The criteria applied by an individual laboratory may vary. The laboratory should be consulted and it's QA/QC criteria supplied to the validator.**	
4.2.1 Confirm that at least one pre-digestion spiked sample was analyzed per batch, matrix type and concentration or sample delivery group? *Action: If not present, contact the facility for re-submittal.*	N/A
4.2.2 Are all spike recoveries (except Hg and Ag) within control limits (e.g., 75% to 125%)? **Note: When the spike sample result is less than the instrument detection limit, the percent recovery calculation should use a value of zero (not the detection limit) for the sample result.** *Action: Is the sample concentration ≥ 4 times the spiked concentration? If yes, disregard spike recoveries for analytes whose concentrations in samples are > 4 times the spike added. If no, circle those analytes whose concentration is < 4 times the spike added.*	List those elements out of control:N/A
4.2.3 Based on the results of 4.2.2, if the sample results were <4x the spike amount and spike recoveries were out of criteria, a post-digestion spike should be analyzed. **Note: Post-digestion spikes are not required for Ag or Hg, however, one typically is run if the LCS was out of control. The post digestion spike confirms a matrix interference and should not be used for qualification** *Action: Contact the facility/laboratory for an explanation if a post-digestion spike was not analyzed. If none are available, use professional judgement to qualify sample results.*	N/A
4.2.4 Were concentrations in the digestate reported in ug/L for aqueous samples and mg/kg on the basis of dry weight for soil samples?	N/A

4.2 Metal Spike Recovery	
4.2.5 Are any **aqueous** spike recoveries (pre and post digestion): 1. Less than 30%? 2. Between 30% and 74%? 3. Between 126% and 150%? 4. Greater than 150%? **Note: The TCLP extract should be handled as an aqueous sample.** *Action: If < 30%, and the sample results are below the detection limit, all data should be qualified as "R."* *If between 30% and 74%, qualify all positive data as "J" and non-detected data as "UJ."* *If between 126% and 150%, qualify positive as "J." All undetected compounds are acceptable.* *If > 150% note for possible positive bias. Evaluator may qualify data "R" based on professional judgement and the eventual end use of the data.*	N/A
4.2.6 Are any **soil/solid/waste** spike recoveries (pre and post digestion): 1. Less than 10%? 2. Between 10% and 74%? 3. Between 126% and 200%? 4. Greater than 200%? *Action: If < 10%, those elements out of control limits should be qualified as "R."* *If between 10% and 74%, qualify those elements out of control limits as "J."* *If between 126% and 200%, qualify positive data, for those elements out of control limits, as "J."* *If > 200%, qualify all positive data, for those elements out of control limits, as "R."*	N/A
4.2.7 If the pre-digestion spike was outside the QC limits for **Atomic Adsorption furnace analysis** (e.g., SW-846 methods in the 7000 series), was a post-digestion spike performed? *Action: Samples should not be qualified based on post-digestion spike results. The results are used to confirm a matrix interference. If a post-digestion spike was not prepared, the data validator may reject the data.*	N/A
4.2.8 Based on the results from 4.2.7, were the post-digestion spike recoveries within the quality control range (75% to 125%)? *Action: If > 125%, qualify all positive data as "J." If < 75%, qualify both positive and non-detect data as "J."*	N/A

4.3 Quality Assurance Data Review - Inorganic Analysis - AA Analysis	
Graphite Furnace Atomic Adsorption QC Atomic Adsorption analyses require specialized QA/QC procedures that may be different than Inductively Coupled Plasma (ICP) Emission Analysis. Commonly, AA analysis is performed for mercury and selenium. Mercury analysis data validation is specifically detailed in the Inorganics Section of the Tier II Checklist. The Tier I Data Validator is directed to the Agency's Data Validation Review Manual and to specific methods detailed in SW-846. In general, external calibration procedures are commonly required by the method. In addition, duplicate injections and multiple concentration post-digestion spikes are required to establish precision and accuracy data.	
4.3.1 Were duplicate injection of samples performed and if so, were the duplicates within ± 20% RPD for samples with concentrations above the detection limit? **Note: Results are reported based upon the average of duplicate injections. If the acceptance criteria is not met, the sample should have been re-analyzed (i.e., with at least two additional injections).** *Action: If RSD criteria is not met or the sample was not rerun, qualify all positive data as "J."*	List sample IDs and appropriate method and calculated RPD: **N/A**
4.3.2 If the samples were re-analyzed (*i.e.*, 2 more injections), do the duplicate injections agree within 20% RSD? *Action: If the RSD criteria is not met, qualify all positive results as "J."*	No. _____N/A_ N/A Yes. _____. List sample IDs and appropriate method and calculated RSD.
4.3.3 Were Matrix Spike/Matrix Spike Duplicates analyzed at a rate of 1 in 20 or per batch? *Action: If no MS/MSD were analyzed, qualify all positive results as "J" and all undetected results as "UJ."*	N/A

4.4 Spikes - Mercury Analysis	
4.4.1 Was a Matrix Spike analyzed at required frequency (one pre-digestion for each group of samples with a similar matrix type and concentration or sample delivery group) and within limits? **Note: Post-digestion spikes are not required for Mercury. However one typically is run if the LCS was out of control in order to show matrix interference.** *Action: If the spike recovery is greater than 125 % and the sample results are below the detection limit, the data is acceptable.* *If the spike recovery is greater than 125% or less than 75%, and the sample results are greater than the detection limit, then the positive data should be qualified as "J."* *If the spike recovery falls within the range of 30 to 74%, all non-detected data should be qualified as "UJ."* *If the spike recovery is less than 30% and the sample results are below the detection limit, qualify these results as "R."*	**N/A**

4.4.2 If the analyte concentration in the original sample is a factor of 50 above the IDL, was a serial dilution analysis performed and did it agree within a 10% difference of the original determination after correction for dilution?	N/A
4.4.3 Was an LCS analyzed per batch and within QC limits (80 to 120%)? (An LCS is not required for aqueous samples of Mercury.) **Note: The results for solid LCS should always be within the control limits. The laboratory should terminate the analysis, correct the problem, and the samples should be re-digested and re-analyzed for mercury.** *Action: If the LCS is outside of the control limit, qualify all positive results as "J."* *If the LCS results are higher than control limits and the sample results are below the detection limit, the results are acceptable.* *If the LCS result is below the lower control limit, qualify all results below the detection limit as "UJ."*	N/A

Section 5.0
Characteristic Tests

5.1 TCLP Preparation and TCLP Spike Recovery	
Toxicity Characteristic Leaching Procedure **The toxicity characteristic leaching procedure (TCLP) is used to determine whether wastes exhibit the toxicity characteristic or whether Land Disposal Restrictions have been met. The TCLP test is specified in OAC 3745-51-24 and defined in SW-846, Method 1311. TCLP data validation requires specific data concerning extraction preparation in addition to the usual data submitted for organic and inorganic analytical methods. In most cases, a laboratory will have to supply bench sheet data to complete data validation. The validator should consult the Tier I Data Validation Guidance Manual for specific information and examples.**	
5.1.1 Did the laboratory calculate TCLP filterable solids? Based on the percent solid calculations, were the correct analytical procedures followed? **Note: TCLP requires that solid waste, semi-solid waste and liquid wastes be prepared based upon the amount of solids in the waste. For waste that has greater than 99.5% solids, the waste is considered solid and a 100 grams of material is extracted with 20 times this weight of extraction fluid. For waste that is equal to or less than 0.5% solids, the waste is considered a liquid and the liquid itself is considered the extract (no additional extraction fluid or tumbling is necessary). If the waste contains both solids and liquids, the solid portion, trapped by filtering, is extracted with 20 times it's weight of extraction fluid and then analyzed. In addition, an aliquot of the liquid is analyzed. The results are then mathematically combined.** *Action: If percent solids were not calculated contact the facility for the proper information.* *If, based on the percent solids calculations, the appropriate preparation methods were not used, qualify analytical results using the following criteria:* *All positive results above the regulatory level should not be qualified.* *All positive results above the detection limits but below the regulatory level should be qualified based on professional judgement and the specific circumstances. You may want to speak with your Tier II validator.* *All non-detected results should be qualified based on professional judgement and the specific circumstances.*	Not analyzed.

5.1 TCLP Preparation and TCLP Spike Recovery	
5.1.2 Was the proper amount of material extracted? **Note: For waste samples to be analyzed for metals or SVOCs (in the solid portion), a minimum of 100 grams is required. For waste samples to be analyzed for volatile compounds, approximately 20-25 grams of sample is required.** **Note: Liquid samples are directly analyzed as the TCLP extract, no extraction fluid is added to the sample.** *Action: If improper sample mass is used, qualify analytical results using the following criteria:* *All positive results above the regulatory level should not be qualified.* *All positive results above the detection limits, but below the regulatory level should initially be qualified as "J" estimated. Based on professional judgement, qualification of data as "R" may be warranted.* *Based on professional judgement, all non-detected results should be qualified as "J" estimated or "R."*	List sample IDs and sample mass(es) used for the extraction: N/A
5.1.3 Was the correct extraction fluid used? **Notes:** **Fluid # 1 is always used for VOC analysis.** **Fluid #1 should be used if the final pH of the pre-test sample is below 5.0.** **If the pH is above 5.0, hydrochloric acid should be added to the pre-test sample (refer to the method for specifics).** **Re-analyze for pH.** **Fluid #1 should be used if the final pH of the pre-test sample is below 5.0.** **Fluid #2 should be used if the final pH of the pre-test is above 5.0.** *Action: Consult with the facility and have the extraction fluid information submitted. If the improper fluid is used, qualify analytical results using the following criteria:* *All positive results above the regulatory level should not be qualified.* *All positive results above the detection limits, but below the regulatory level, should initially be qualified as "J." Rejection of data may be warranted if other preparatory procedures are outside of criteria.* *All non-detected results should be qualified as "R."*	List sample IDs and fluid type(s) used for the extraction: N/A

5.1 TCLP Preparation and TCLP Spike Recovery	
5.1.4 Did the extraction fluid have the proper pH? Fluid #1 has a pH range of 4.88 to 4.98 Fluid #2 has a pH range of 2.83 to 2.93. *Action: If an improperly prepared extraction fluid is used, qualify analytical results using the following criteria:* *All positive results above the regulatory level should not be qualified.* *All positive results above the detection limits, but below the regulatory level, should initially be qualified as "J." Rejection of data may be warranted if other preparatory procedures are outside of criteria.* *All negative results should be qualified as "R."*	List incorrect fluid pH(s): N/A
5.1.5 Was the correct weight of extraction fluid used? Laboratory bench sheets may be needed to complete this section. **Note: For waste that has greater than 99.5% solids, the waste is considered solid, and 100 grams of material are extracted with fluid 20 times this weight. For waste that is equal to or less than 0.5% solids, the waste is considered a liquid, and the liquid itself is considered the extract (no additional extraction fluid or tumbling is necessary). If the waste contains both solids and liquids, the solid portion, trapped by filtering, is extracted with fluid 20 times its weight. This extract can either be physically recombined with the liquid portion for analysis, or the estract and liquid portions can be analyzed separately and those results conbined mathematically.** *Action: The extraction fluid weight should be within 85 - 115% of the correct value (2000 grams for metals; 500 grams for VOCs). These values may be re-qualified if additional problems with TCLP preparation exist.* *If the extraction fluid weight is within 70 - 85% or 115 - 130% of the correct value, qualify all results as "J."* *If the extraction fluid weight is 0 - 70% of the proper weight, qualify all results as "R."* *If the extraction fluid weight is greater than 130% of the proper weight, qualify all non-detected compounds, and positive results below the regulatory level, as "R." All positive results above the regulatory limit should not be qualified.*	N/A

5.1 TCLP Preparation and TCLP Spike Recovery	
5.1.6 Was a TCLP blank analyzed with every batch of samples? **Note: TCLP blanks should be prepared using the same extraction fluid as is used for the associated sample's extraction.** *Action: Contact the facility for submittal of missing data. If no blank was analyzed, qualify all positive results as "R." If data is available, qualify TCLP data as designated in Section 4.0 Blank Data Summary Review*	List IDs of affected samples: N/A
5.1.7 Was the tumbling time within 18 +/- 2 hours? **Note: Tumbling time (evaluated based on the day and time tumbling begins/is completed) should be noted on the bench sheets. The laboratory should be contacted if this information isn't present.** *Action: If the tumbling time is not within 18 +/- 2 hours, qualify all data as "J."*	N/A
5.1.8 Was the tumbler speed within 30 +/-2 RPM? **Note: Tumbler speed should be noted on the bench sheets. The laboratory should be contacted if this information isn't present.** *Action: If the tumbler speed is not within 30 +/-2 RPM, qualify all data as "J."*	N/A

VOC, SVOC and Metal results from the TCLP test should meet the sample QA/QC criteria outlined in Sections 1.0 through 4.0.

5.2 Ignitability
Ignitability The two testing methods that may be used to determine this hazardous waste characteristic are SW-846 Method 1010 (Pensky Martens Closed Cup, also ASTM D93-80 or D93-71) and Method 1020 (SETAFlash Closed Cup and ASTM D3278-91). Method 1020A is used for liquids that have lower viscosities and flashpoints between 0 °C and 110 °C. Method 1010 is the flashpoint method most often used by DHAM. It is used for "fuel oils, lube oils, suspensions of solids, liquids that tend to form a surface film under test conditions, and other liquids." For us, this includes things like paint wastes, parts cleaners, etc. To test the flash point, "the sample is heated at a slow, constant rate with continual stirring. A small flame is directed into the cup at regular intervals with simultaneous interruption of stirring. The flash point is the lowest temperature at which application of the test flame causes the vapor above the sample to ignite." Method 1010 has two options, termed "A" and "B". Method A, the basic procedure, is used unless the material being tested is a suspension of solids or a highly viscous material. Those materials require the use of Method B. There are specific requirements and apparatus for method 1010 that are not included in this check list. These items include recording of barometric pressure, thermometers, stirrer rates, wind shields and drying of wastes that contain free water. If necessary, specific testing requirements that are used should be discussed with the laboratory and appropriate qualifications of the data should be made.

5.2 Pensky-Martens (SW-846, Method 1010) - Method A		
5.2.1	Was p-xylene used to calibrate the instrument?	Not analyzed.
5.2.2	Was the flashpoint for the calibration standard p-xylene within 81± 6 °F?	Record the p-xylene calibration flashpoint(s):N/A
5.2.3	If the calibration standard was outside of this range (see 6.1.2), was corrective action taken? *Action: If no corrective measures were performed, determine whether a significant bias has been imparted to the samples and qualify the results using professional judgement. If sample is still available, notify the laboratory. Consult Tier II evaluator regarding request re-analysis.*	Record IDs of samples that are qualified:N/A
5.2.4	Based on 6.1.3, if corrective measures were taken, was the p-xylene calibration flashpoint within 81± 2 °F? **Note: Corrective measures should have continued until this flashpoint calibration range was attained.** *Action: If these procedures were not followed and documented, contact the laboratory for an explanation. Lack of an adequate explanation may justify qualifying the data.*	N/A
5.2.5	If a sample has an expected flashpoint, based on field/facility information, measurements should begin at least 30-50° F below the expected flashpoint of the material. If the expected flashpoint is unknown, the initial measurements should begin at the ambient temperature of the laboratory. *Action: If these procedures were not followed and documented, contact the laboratory for an explanation. Lack of an adequate explanation may justify qualifying the data.*	N/A

5.2 Pensky-Martens (SW-846, Method 1010) - Method A	
5.2.6 Was heat applied so as to raise the temperature of the sample at a rate of 9-11 °F per minute? **Note: To determine if this temperature rate is proper, the time and temperature at the beginning of heating should be recorded, and the time and temperature when flash occurred (or when analyses ended) should be recorded.** *Action: If these procedures were not followed and documented, contact the laboratory for an explanation. Lack of an adequate explanation may justify qualifying the data.*	N/A
5.2.7 Were duplicate analyses performed? *Action: If no duplicates exist, the data validator may qualify all results as "J." If additional QA problems exist the validator may justify rejecting the results if the flashpoint determination is over 140°F. Results should not be rejected for data under 140°F.* *If duplicate results exist, and the flashpoint range is under 220°F, the results should agree within ± 4°F. If the results do not agree then qualify all results as "J." If additional QA problems exist, the validator may justify rejecting the results if the flashpoint determination is over 140°F. Results should not be rejected for data under 140°F.*	N/A

5.3 Pensky-Martens (SW-846Method 1010) - Method B for Viscous Materials	
5.3.1 Was p-xylene used to calibrate the instrument?	N/A
5.3.2 Was the flashpoint for the calibration standard p-xylene within 81± 6 °F?	Record the p-xylene calibration flashpoint: N/A
5.3.3 If the calibration standard was outside of this range (see 6.2.2), was corrective action taken? *Action: If no corrective measures were performed, determine whether a significant bias has been imparted to the samples and qualify the results using professional judgement. If sample is still available, notify the laboratory and request re-analysis.*	Record IDs of samples that are qualified: N/A
5.3.4 If corrective measures were taken, was the p-xylene calibration flashpoint within 81± 2 °F? **Note: Corrective measures should have continued until the correct calibration flashpoint was attained.** *Action: If these procedures were not followed and documented, contact the laboratory for an explanation. Lack of an adequate explanation may justify qualifying data.*	N/A

5.3 Pensky-Martens (SW-846Method 1010) - Method B for Viscous Materials	
5.3.5 Measurements should begin at 30-50°F below the expected flashpoint of the material. If that is unknown, the initial temperature should be the ambient temperature of the laboratory. *Action: If these procedures were not followed and documented, contact the laboratory for an explanation. Lack of an adequate explanation may justify qualifying the data.*	N/A
5.3.6 Was the temperature of the sample raised at 2-3 °F per minute? **Note: Laboratory bench sheets may be required to show the starting temperature, the starting time, the flash point temperature and the time when flash occurred. These materials should be requested from the laboratory.** *Action: If these procedures were not followed and documented, contact the laboratory for an explanation. Lack of an adequate explanation may justify qualifying the data.*	N/A
5.3.7 The flashpoint temperature should be corrected for the ambient barometric pressure, using the following relationships: 1) Corrected flashpoint = C + 0.25(101.3 - p) 2) Corrected flashpoint = F + 0.06(760 - P) 3) Corrected flashpoint = C + 0.033(760 - P) Where: F = Observed flashpoint, °F C = Observed flashpoint, °C P = Ambient barometric pressure, mm Hg p = Ambient barometric pressure, kPa. **Note: The ambient barometric pressure should not be corrected to give sea level readings. The ambient barometric pressure is the ambient pressure in the laboratory at the time of the test. Many barometers that are used at weather stations are corrected to give sea level readings.** *Action: If flashpoint was not corrected for ambient barometric pressure, qualify all results over 140°F as "J" estimated. If additional QA results indicate a lack of quality, any results above 140°F may be qualified as "R." Flashpoint results less than 140°F should not be qualified.*	Record IDs of samples where flashpoint was not corrected: N/A

5.3 Pensky-Martens (SW-846Method 1010) - Method B for Viscous Materials	
5.3.8 Were duplicate analyses performed? **Note: If no duplicate data exists consult with the facility and obtain the laboratory results.** *Action: If duplicate data does not exist, qualify all results as "J." If additional QA problems exist, the validator may justify rejecting the results if the flashpoint determination is over 140°F. Results should not be rejected for data under 140°F.* *If duplicate results exist, and the flashpoint range is under 220°F, the results should agree within ± 4°F. If the results do not agree, qualify all results as "J." If additional QA problems exist the validator may justify rejecting the results if the flashpoint determination is over 140°F. Results should not be rejected for data under 140°F.*	N/A

5.4 pH Determination and Corrosivity Tests	
pH **pH is an important parameter used in ambient groundwater monitoring and for determining if a waste displays the characteristic of corrosivity. For corrosivity determinations, OAC 3745-51-22 specifies that SW-846 Method 9040B be used as the analytical test.**	
5.4.1 Were the pH tests performed as soon as practically possible? **Note: SW-846 Method 9040B does not specify a maximum technical holding time for pH. However, it does state that all tests must be performed as soon as possible. The Ohio EPA expects that most laboratories can perform the pH test within 24 hours of sample receipt.** *Action: If analyses were performed within 24 hours, no action is necessary. If analyses were performed after 24 hours, but before the end of 7 days after sample receipt, all sample results between a pH of 2.05 and 12.5 will be flagged as "J." If the results are equal to or less than a pH of 2 or greater than or equal to a pH of 12.5, the results will not be flagged.* *If analyses were performed 7 days or more after sample receipt, all sample results between a pH of 2.05 and 12.45 will be flagged as "R." If the results are equal to or less than a pH of 2 or greater than or equal to a pH of 12.5, the results will not be flagged.*	Note time and date of sampling, sample receipt, and analysis for each sample. N/A
5.4.2 Was a yearly NIST certification of the analytical instrument performed? **Note: This information must be part of the Laboratory's QAPP. Check the QAPP or request information for the facility or laboratory.** *Action: If a yearly certification was not performed, flag all results between a pH of 2.05 and 12.5 as "J." All results meeting the regulatory criteria for corrosivity will not be flagged.*	N/A

5.4.3 Were the calibration buffers within their expiration date? **Note: Have the laboratory provide a photocopy of the expiration date, and the buffer batch ID?** *Action: If the expiration date is exceeded, flag all results between pH 2.05 or 12.45 as "R." Initially, results meeting the regulatory criteria for corrosivity will not be flagged; however, the data validator may qualify results based upon professional judgement and the data quality objectives for the data.*	N/A
5.4.4 Was the instrument calibrated correctly using at least two buffers that bracket the expected pH of the sample? **Note: For corrosivity determinations, the calibration buffers must include a pH 2 buffer and a pH 12 buffer. Review the calibration log for information or request information from the laboratory.** *Action: If an insufficient number of buffers were used (i.e., one) or if incorrect buffers were used (buffers did not include a pH of 2 or 12 for corrosivity determinations), flag all results between a pH of 2.05 and 12.45 as estimated, "J." All results meeting the regulatory criteria for corrosivity will not be flagged. If the pH of the waste is within 1.5 pH units of the regulatory criteria for corrosivity (3.0 or 11.0) and a pH 2 or 12 buffer was not used, the results may be questionable and additional analyses using the correct buffers standards may be necessary.*	N/A
5.4.5 Was continuing calibration performed? **Note: If continuing calibration was performed, the pH of the continuing calibration buffer must be within 0.5 pH units of the buffer pH. Information on the continuing calibration standard and results must be requested from the laboratory.** *Action: If continuing calibration was performed and the results were within 0.5 pH of the calibration buffer, no action is necessary. If continuing calibration was performed, and the results were greater or less than 0.5 pH units of the correct reading for the calibration buffer, then the analysis must have been terminated and the instrument recalibrated. If recalibration was necessary, but not performed, flag all results between a pH of 2.05 and 12.5 as estimated, "J." Initially, results meeting the regulatory criteria for corrosivity will not be flagged; however, the data validator may qualify results based upon professional judgement and the data quality objectives for the data.*	N/A

5.4.6 Were the temperatures of the sample and the calibration buffers within 2°C of each other? **Note: request the information from the laboratory. If the sample and the calibration buffers were not within 2°C, then temperature compensation must have been performed. Request information from the laboratory on manual temperature compensation procedures or whether an automatic temperature compensation was used.** *Action: If temperature compensation was required but not performed, flag all results between pH 2.05 or 12.45 as estimated, "J." Initially, results meeting the regulatory criteria for corrosivity will not be flagged; however, the data validator may qualify results based upon professional judgement and the data quality objectives for the data.*	N/A
5.4.7 If the sample pH was above 12.0, was the temperature of the sample maintained at 25 ±1°C? *Action: If the temperature was maintained at 25 ±1°C, then no action is necessary. If the temperature was not maintained at 25 ±1°C, but the results meet the regulatory criteria of corrosivity, then the results will not be flagged. If the temperature was not maintained, then reject, "R," all results between 12.0 and 12.5.*	N/A

Henry Co
"Campbell Soup Company 2004"

Closure Certification Review Form

Facility Name	Campbell Soup Supply Company	Reviewer/District Office	Kara Reynolds/NWDO
ID Number	OHD 005 419 171	Date of Certification	Certification dated May 18, 2004. Received by OEPA on May 20, 2004. Subsequent submittals on May 25, 2004 and June 1, 2004.
Date Review of Certification Completed	June 9, 2004	Certification is: New, Amended, Revised	Revised
Date Reviewed by Closure Coordinator		Date Reviewed by DDAGW, if Applicable	N/A

I. General Information		Location in Certification
A) Facility Permit Status (Part A, Part B, Unpermitted TSDF):	Unpermitted	
B) Is this a (Partial/Full) Closure?	Full	
If Partial Closure is checked, list the other regulated units remaining (unclosed) at the facility. This does not include generator units.		
C) Does the submitted certification describe closure for more than one unit? If so, a separate certification review form should be completed for each individual unit.	No	

II. General Considerations	
A) Date of the closure certification inspection	June 9, 2004
B) Was the certification submitted, by registered mail, within 60 days of completion of closure, in accordance with OAC Rule 3745-55-15 or 3745-66-15?	Yes
C) Has the closure performance standard (OAC Rule 3745-55-11 or 3745-66-11) been met? Describe how the closure performance standard was met (e.g., the facility has shown that the remaining concentrations of the constituents of concern (COCs) have passed a human health risk assessment and do not show a need for further maintenance).	Yes. The facility has shown that the remaining concentrations of COCs have passed a risk assessment via GCNs and do not show a need for further maintenance.
D) Professional Engineer (PE) Requirements: Is the PE licensed to practice in the state of Ohio, as can be verified using their name or PE license number at www.ohiopeps.org? Is the PE not directly employed by the owner/operator corporation or any of the corporations subsidiaries? Is the PE qualified, demonstrating education and/or experience in environmental and waste management areas?	Yes Yes. The PE is not directly employed by the owner/operator corporation or any of the corporation subsidiaries. Yes
E) Was the frequency of inspection by the PE sufficient to determine the adequacy of each critical activity? The independent registered professional engineer or his/her representative should have been present for all critical activities during closure, including but not limited to soil sampling, soil removal, backfilling, final cover placement, structure decontamination, etc.	Yes. Either the PE or the representative were at all closure activities.

II. General Considerations	
F) What is the status of the facility upon completion of closure (CESQG, SQG, LQG, TSDF, land disposal facility, no longer a generator of hazardous waste)?	CESQG
G) If contaminated soil is left in place, is it protected by an alternate technology cover (cap)?	No contaminated soil in place.
H) If waste remains in place, is it protected by engineering controls?	No waste remains in place.
I) Is there an approved post-closure plan, which includes post-closure monitoring, operations and maintenance, and financial assurance, if applicable (OAC Rule 3745-55-18 or 3745-66-18)?	No post-closure plan needed.

III. Documentation to be Included with Certification		Location in Certification
A) Is there a statement attesting to the fact that the unit or facility has been closed in accordance with the specifications in the approved closure plan (OAC Rule 3745-55-15 or 3745-66-15)?	Yes.	Pg. 1
B) Does the certification contain the exact wording as found in OAC Rule 3745-50-42(D)?	Yes.	Page 3 of the cover letter, 35
C) Is the certification statement signed by the owner/operator and an independent registered PE licensed to practice in the state of Ohio?	Yes.	Page 3 of the cover letter, 35
D) Is the approved closure plan or reference to the approved closure plan included?	**Yes, reference to plan made.**	**Pg. 1**
Is there a summation of minor changes to the plan approved by Ohio EPA, as well as significant correspondence regarding these minor changes?	**Yes.**	**Appendix A**
Does the certification report include all correspondence (from the facility to Ohio EPA and from Ohio EPA to the facility) regarding all closure activities after Ohio EPA approval?	**Yes.**	**Appendix A**
E) Is there a narrative describing all significant activities during closure, including but not limited to sampling, decontamination, cover (cap) construction, and ground water well construction?	Yes.	**Pg. 3-34**
F) Is the volume of waste removed or closed in place, including the volume of waste generated by closure activities such as decontamination, stated in the certification?	Yes.	**Table 5**
G) For waste removed or generated, is documentation included that details proper characterization of the waste (sampling data) and proper management to off-site facilities (copies of manifests)?	**Yes.**	**Appendix A, D, E**
H) Are the results of all media sampling and analytical activities, including raw laboratory data and enough quality assurance and quality control information that the applicable Data Validation/Data Collection plan review forms can be completely filled out, included? Does the certification include chains of custody?	**Yes.**	**Attachments I, II and Appendix B**

III. Documentation to be Included with Certification		Location in Certification
I) Is there documentation that cleanup standards defined in the approved closure plan have been achieved and that the closure performance standard has been met? This may include documentation that any applicable institutional controls have been implemented.	**Yes. There is a table that shows the risk calculation below the appropriate levels.**	**Table 11**
J) Are as-built drawings for waste-in place closures included?	**N/A**	
K) If the unit is subject to post-closure care and monitoring, then is there proof of submission of a survey plat to the local zoning authority (OAC Rule 3745-55-16 or 3745-66-16)?	**N/A**	
L) Are boring logs and ground water well construction or abandonment details included?	**No. This information is contained in the closure plan.**	
M) If a use restriction or deed notice is necessary, has it been implemented using a method approved by Ohio EPA Legal? Note: a deed notice is a requirement for waste-in place closure units in accordance with OAC Rules 3745-55-19 and 3745-66-19.	**N/A**	
N) Is any other information which is needed to document compliance with the approved closure plan and the closure performance standard included?	**All information needed has been included in the certification report.**	

Henry Co
"Campbell Soup
2004"

GeoTrans, Inc.
A TETRA TECH COMPANY

FAX TRANSMISSION COVER SHEET

710 Avis Drive
Ann Arbor, MI 48108
(734) 213-2204
Fax: (734) 213-5008

To: KARA REYNOLDS **Date:** 6-01-04

Company or Division: OHIO EPA NORTHWEST DISTRICT OFFICE DHW **No. Of Pages:** THREE (Including Cover Sheet)

Fax No.: 419 352-8468 **Phone No.:** 419-373-3005

From: MICHAEL KOVACICH

Remarks:

Per your request I have attached the COCs for the samples collected during the implementation of the SAP. Please place them in the appropriate appendix.

Thank You,

Michael Kovacich

IF YOU DO NOT RECEIVE THE NUMBER OF PAGES LISTED ABOVE, PLEASE CALL.

This facsimile contains **Privileged and Confidential** information intended only for the use of the Addressee(s) named above. If you are not the intended recipient of this facsimile, or employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination or copying of this facsimile is strictly prohibited. If you received this facsimile in error, please notify us by telephone and return the original facsimile to us at the above address via the U.S. Postal service. Thank You.

Brighton Analytical, L.L.C.

BA PROJECT #:

PAGE 1 OF 2

COMPANY NAME: GZA

PROJECT NAME: Campbells

PROJECT NUMBER: 4603.003.06

P. O. NUMBER:

RUSH, approved by:

Brighton ID #	Sample Description	Time	Date	VOA's (3 req'd)	HDPE UNPRESERVED	HDPE HNO3	HDPE H2SO4	HDPE NaOH	AMBER	GLASS H2SO4	GLASS, NO PRESERVATIVE	Filtered for Dissolved Metals (F) or Lab to Filter (L)	VOCs 8260 (Comp. A Analytes + 10 TICs)	SVOCs 8270	Soil/Sediment Grain Size (Combined Sieve & Hydrometer)				
1)	PB-04-59 0.5-1	11:10	3/11								2	4		X	X	X			
2)	PB-04-60 0.5-1	11:30									1	1							
3)	PB-04-61 0.5-1	10:20									1	1							
4)	PB-04-62 0.5-1	9:40									1	1							
5)	PB-04-63 0.5-1	11:45									1	1							
6)	Dup-1	10:50									1	1							
7)	Dup-2	11:50									1	2							
8)																			
9)																			
10)																			
11)																			

Matt Kennedy

Attn:

PHONE:
FAX:

Sample received within holding time? yes ☐ no ☐

For TCLP ONLY – Federal Limits ☐ Other ☐

Samples intact: yes ☐ no ☐ (if no, see below)

Note samples if not intact:

Headspace/bubbles in VOA's? yes ☐ no ☐ n/a ☐

Sample containers and COC match? yes ☐ no ☐

Comments:

Extra Soil Containers
have been placed in
Brenda Rondo Samples in
this Place for
Place extra Soil
Sample to Matrix Spike
from Area of the Test
Pit Soils

Temperature of Samples °C: 4

	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	Matthew Hamel	DJ Cunningham	3/10/04					
2								

JUN. 1.2004 6:39PM HSG ANN ARBOR NO. 738 P. 2/3

BA Brighton Analytical, LLC

BA PROJECT #:

PAGE 2 OF 2

COMPANY NAME:

PROJECT NAME:

PROJECT NUMBER: See page 1

P. O. NUMBER:

If RUSH, approved by:

Brighton ID #	Sample Description	Time	Date	VOA'S (PRES) Y N	HDPE UNPRESERVED	HDPE HNO3	HDPE H2SO4	HDPE NaOH	AMBER	GLASS H2SO4	GLASS, NO PRESERVATIVE	MECH PURGE (Specify in Field Preserved)	FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTERED	VOCs 8260B (See Attached)	SVOCs 8270	Sodium Bisulfite (Bulb Preserved)				
1)	PB-04-59 4.0-4.5	11:20	4/17								2	4		X	X	X				
2)	PB-04-60 3.0-3.5	11:45																		
3)	PB-04-61 4.0-4.5	10:30																		
4)	PB-04-62 4.0-4.5	9:30																		
5)	PB-04-63 4.0-4.5	10:55																		
6)	PB-04-62 7.5-8	9:40																		
7)	PB-04-62 11-11.5	10:00																		
8)																				
9)																				
10)																				
11)																				

Mike Kovacich

Attn:

PHONE:
FAX:

Sample received within holding time? yes ☐ no ☐

For TCLP ONLY—Federal Limits ☐ Other ☐

Samples intact: yes ☐ no ☐ (if no, see below)

Note samples if not intact:

Headspace/bubbles in VOA'S? yes ☐ no ☐ n/a ☐

Sample containers and COC match? yes ☐ no ☐

Comments:

See page 1

Temperature of Samples °C: 4

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	[signature]	[signature]	3/13/01					
2								

Henry Co.
"Campbell Soup
2004"

GeoTrans, Inc.
A TETRA TECH COMPANY

LETTER OF TRANSMITTAL

710 Avis Drive, Ann Arbor, MI 48108 • (734) 213-2204 • (734) 213-5008 (FAX)

RECEIVED
MAY 25 2004
OHIO E.P.A.
N.W.D.O.

Date: May 24, 2004

To: Ms. Kara Reynolds
Ohio Environmental Protection Agency
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, OH 43402

Transmitted By:

☐ First Class Mail ☑ Federal Express ☐ Courier

☐ Registered Mail ☐ UPS ☐ Other_____

Job #: 4603.003.06

Re: Campbell Soup Napoleon Site

We are enclosing: Revised Certification Report Appendix B-7 (COCs)

Remarks: Please add the attached subset B-7 to Appendix B. This section was accidentally left out of the final draft.

This document can be found
in the
NWDO DHWM Facility Document
Library

copy: Pamela, Allen, Ohio EPA

Dr. Osman Aly, Campbell

By: Michael Kovacich

Campbell SOUP Company

WORLD HEADQUARTERS
Camden, New Jersey 08103-1799

RECEIVED
MAY 20 2004
OHIO E.P.A.
N.W.D.O.

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
Fax: 856-968-2808/2809

May 19, 2004

Via Airborne Express

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Hazardous Waste Management
ATTN: Pamela Allen
Regulatory and Information Services Section
122 South Front Street
Columbus, Ohio 43215

This document can be found
in the
NWDO DHWM Facility Document
Library

And

Ohio Environmental Protection Agency
Division of Hazardous Waste Management, Northwest District Office
ATTN: Ms. Kara Reynolds
Division of Hazardous Waste Management
347 Dunbridge Road
Bowling Green, Ohio 43402

Re: Former Holding Pit
Revised RCRA Site Closure Report
Campbell Soup Supply Company, Napoleon, Ohio
OHD 005 419 171

Dear Ms. Reynolds:

Enclosed please find a copy of a "Revised RCRA Site Closure Report" prepared by GeoTrans, Inc., an independent registered professional engineer, certifying that the facility has been closed in accordance with the specifications in the approved Closure Plan and the Revised Sampling Plan that was approved in your letter of March 5, 2004. This QA/QC information for the analytical results of the Revised Sampling Plan are included in the closure report as requested in your approval letter dated April 21, 2004.

The Revised Certification Report was prepared following the format specified in OAC rule 374-5-50-53 (D). Campbell Soup Company's Certification is attached to this letter.

FILE COPY

We would appreciate your review and approval of closure of the site at your earliest convenience. If any additional information is needed, please contact me at (856) 968-4423 or Mike Kovacich at (734) 213-5024.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

cc: Faith Greenfield, Esq.
R. T. Shober
Carlos M. del Sol

FILE COPY

CERTIFICATION OF CAMPBELL SOUP COMPANY

(Revised RCRA Site Closure Report, Former Holding Pit, Napoleon, Ohio)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

CAMPBELL SOUP COMPANY

C. M. del Sol
Name


Signature

Vice President – Global Engineering Systems
Title

5/18/04
Date

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 **FAX:** (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

April 21, 2004

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Former Holding Pit
Soil Sampling Analytical Results from the *RCRA Site Closure Revised Sampling and Analysis Plan*
Campbell Soup Supply Company, Napoleon
OHD 005 419 171

Dear Dr. Aly:

On February 24, 2004, Campbell Soup Company (CSC) submitted to the Ohio Environmental Protection Agency (Ohio EPA) a revised sampling and analysis plan for the former holding pit located in Napoleon, Ohio. This document was titled *RCRA Site Closure Revised Sampling and Analysis Plan.* Ohio EPA approved this document on March 5, 2004. CSC completed sampling of the former holding pit on March 17, 2004 and submitted the soil sampling analytical results to Ohio EPA on April 5, 2004.

Ohio EPA has reviewed the analytical results and agrees with the conclusions provided in the cover letter. In particular, Ohio EPA believes that the data obtained from the March 17, 2004 sampling event is similar to the data used to represent the backfilled area. However, to this date Ohio EPA has not received quality assurance/quality control (QA/QC) information for the March 17, 2004 sampling event. Without this information, Ohio EPA cannot finalize conclusions on the data. Although Ohio EPA needs to review the QA/QC information before finalizing conclusions, Ohio EPA does not intend to delay the closure process further. Therefore, Ohio EPA is granting CSC permission to include the QA/QC information from the March 17, 2004 sampling event in the revised certification document.

If you wish to arrange a meeting to discuss responses to this letter, please contact me at (419) 373-3065 at your convenience.

Sincerely,

Kara Reynolds

Kara Reynolds
Division of Hazardous Waste Management

/lb
cc: Kara Reynolds, Ohio EPA, NWDO
NWDO, DHWM Henry County file "Campbell Soup Company, 2004"

ec: Erik Hagen, Ohio EPA, CO
Stephanie Beak, Ohio EPA, CO
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Michael Maringer, Campbell Soup Company, Napoleon
Michael Kovacich, GeoTrans, Inc., Ann Arbor
Tesha Humphriss, GeoTrans, Inc., Ann Arbor

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Henry County
"Campbell Soup 2004"

GeoTrans, Inc.
A TETRA TECH COMPANY

710 Avis Drive
Ann Arbor, MI 48108

www.geotransinc.com

734-213-2204 FAX 734-213-5008

April 2, 2004

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APR 0 5 2004
OHIO E.P.A.
N.W.D.O.

Ms. Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
Ohio Environmental Protection Agency
347 North Dunbridge Road
Bowling Green, OH 43402

Re: Soil Sampling Analytical Results
Campbell Soup Supply Company, Napoleon, Ohio

Dear Ms. Reynolds:

On March 17, 2004, GeoTrans, Inc. (GeoTrans) conducted soil sampling at the above-referenced site, as detailed in the Revised Sampling and Analysis Plan (SAP) approved on March 5, 2004. The Ohio EPA attended the sampling event to observe sampling methods and ensure compliance with the SAP. The Geoprobe™ Dual Tube sampling technique was used to collect the first soil sample at PB-04-62, in accordance with the SAP. Due to poor sample recovery when using the Dual Tube sampling method, GeoTrans proposed using the Geoprobe™ Macrocore sampling technique instead. This revision to the sampling plan was verbally approved by field representatives of the Ohio EPA.

All proposed samples were successfully collected in accordance with the SAP. The samples were submitted to Brighton Analytical on March 18, 2004, for laboratory analysis of the chemicals of concern, using the analytical methods detailed in the SAP. The laboratory analytical report was received by GeoTrans on March 29, 2004. The attached summary table shows the results; Appendix A furnishes a copy of the analytical data. The Level IV quality assurance and quality control data package has not been received from the Laboratory as of this date.

GeoTrans conducted a screening analysis, as outlined in the approved sampling plan, to compare the analytical results from samples PB-04-59 through PB-04-63 with the existing data set. Our screening analysis indicates that the two data sets are similar, as indicated in the following comments:

- With the exception of trace levels of toluene, no VOCs were detected.
- All SVOCs were lower in concentration than the previous maximum detections, except for one sample. Sample PB-04-63 (0.5-1') had the following parameters exceeding their previous maximum concentrations by less than 8 %:
    - benzo(a)anthracene was detected at 1,200 µg/kg, 40 µg/kg higher than the previous maximum detection of 1160 µg/kg.

  - benzo(k)fluoranthene was detected at 1,000 µg/kg, 20 µg/kg higher than the previous maximum detection of 980 µg/kg.
  - chrysene was detected at 1,300 µg/kg, 100 µg/kg higher than the previous maximum detection of 1,200 µg/kg.

- SVOCs were generally lower in concentration in the other samples collected in March when compared to the treated soil piles (VR samples).

- The analytical results from the March 2004 sampling event are qualitatively similar to the data previously used to represent the backfill (Table 1).

Please notify us when you have completed your evaluation of the SAP analytical results. We would like to begin the risk assessment, detailed in Section 3 of the SAP, as soon as possible.

If you have any questions, please call me at 734-213-5024.

Sincerely,

Michael Kovacich, CPG
Senior Hydrogeologist

Attachments

Copy: Dr. Osman Aly, Campbell Soup
Mike Maringer, Campbell Soup

P:\Projects\Campbell Soup\Correspondence\SAP Analytical Results.doc

Table 1
Previous Backfill Analytical Data Compared to March 2004 Analytical Data
Campbell Soup Supply Company
Napoleon, Ohio

Sample ID	Existing Backfill Series Data Used for Screening				VR-02-01	VR-02-01 (2)	VR-02-01 (2) split	VR-02-02	VR-02-03	VR-03-06	VR-03-08	VR-03-09	VR-03-09 unscreened	VR-03-10	VR-03-11	VR-03-12
Depth					na	na	na	na	na	na	na	na	na	na	na	na
Sample Date	Min	Max	Min	Max	12/12/02	12/23/02	12/23/02	12/17/02	12/31/02	01/20/03	02/10/03	02/10/03	02/10/03	02/14/03	02/14/03	02/18/03
Units	Conc	Conc	DL	DL	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SVOCs																
Acenaphthylene	nd	162	330	330	nd	nd	nd	162J	nd	nd	nd	nd	nd	nd	nd	nd
Anthracene	nd	380	330	330	nd	nd	nd	150J	nd	nd	nd	nd	nd	**360**	**380**	nd
Benzo (a) Anthracene	nd	1160	330	330	nd	nd	**330**	180J	**610**	**810**	**420**	**780**	nd	**750**	**910**	**460**
Benzo (a) Pyrene	nd	1080	330	330	nd	nd	nd	nd	**480**	**350**	**350**	**920**	nd	**630**	**740**	**370**
Benzo (b)Fluoranthene	nd	1940	330	330	**570**	nd	**350**	193J	**590**	**850**	**510**	**900**	**400**	**850**	**1100**	**550**
Benzo (g,h,i) Perylene	nd	850	330	330	nd	nd	**390**	180J	**650**	**780**	**400**	**660**	**330**	**640**	**700**	**370**
Benzo (k) Fluoranthene	nd	980	330	330	nd	nd	nd	nd	**550**	**670**	nd	**670**	nd	**780**	**980**	**440**
Benzoic Acid	nd	2500	660	3300	nd	nd	nd	nd	nd	nd	nd	nd	nd	1300J	2500J	nd
Bis(2-ethylhexyl)phthalate	187	13000	330	330	nd	nd	nd	220J	nd	nd	nd	nd	nd	nd	nd	nd
Carbazole	nd	440	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	1200	330	330	**370**	nd	**400**	193J	**810**	**1200**	**600**	**1000**	**470**	**970**	**1200**	**590**
Di-n-butyl phthalate	nd	350	330	330	nd	nd	nd	160J	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	3400	330	330	**870**	nd	**1100**	**850**	**1700**	**1900**	**1100**	**1200**	**1100**	**3100**	**3400**	**1600**
Indeno (1,2,3-cd) Pyrene	nd	640	330	330	nd	nd	nd	nd	**370**	**550**	nd	**510**	nd	**460**	**540**	nd
2-Methylnaphthalene	nd	1260	330	330	nd	nd	nd	**570**	nd	nd	nd	nd	nd	**340**	**380**	nd
Naphthalene	622	11000	330	330	**530**	nd	**980**	nd	**420**	**590**	**480**	**400**	**490**	**1600**	**1300**	**500**
Phenanthrene	nd	2500	330	330	**760**	nd	**1200**	**850**	**1200**	**1600**	**940**	**770**	**800**	**2400**	**2500**	**1100**
Phenol	nd	880	330	330	nd	nd	nd	**820**	nd	nd	nd	nd	**480**	**540**	**640**	nd
Pyrene	nd	2300	330	330	**910**	nd	**2300**	nd	**1800**	**1700**	**740**	**970**	**560**	**1900**	**2100**	**750**
VOCs																
Acetone	108	772	50	250	**772**	**141**	na	**392**	nd	nd	nd	nd	na	nd	nd	nd
Benzene	4	13	5	25	4J	**9**	na	13J	nd	nd	nd	nd	na	nd	nd	nd
Bromodichloromethane	nd	31	5	25	nd	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd
Butanone 2- (MEK)	12.6	99.3	50	250	**99**	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd
Carbon Disulfide	nd	17.3	5	100	nd	**8**	na	17.3J	nd	nd	nd	nd	na	nd	nd	nd
Chlorodibromomethane	nd	10.8	5	25	nd	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd
Chloroform	nd	145	5	25	nd	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd
Ethylbenzene	29.1	1680	5	25	4.3J	**11**	na	22.7J	nd	nd	nd	nd	na	nd	nd	nd
2-Hexanone	21.3	53	10	100	**36**	6.1J	na	nd	nd	nd	nd	nd	na	nd	nd	nd
Isopropylbenzene	6.96	333	5	25	nd	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd
Methyl 4 -2-Propanone (MIBK)	21.6	160	50	250	**36**	nd	na	160J	nd	nd	nd	nd	na	nd	nd	nd
n-Butylbenzene	nd	32.9	5	25	nd	nd	na	27.1J	nd	nd	nd	nd	na	nd	nd	nd
n-Propylbenzene	15.1	875	5	25	nd	nd	na	nd	nd	nd	nd	nd	na	nd	nd	nd
p-Isopropyltoluene	126	967	5	25	nd	nd	na	nd	na	na	na	na	na	nd	nd	nd
sec-Butylbenzene	21.1	991	5	25	nd	nd	na	nd	na	na	na	na	na	nd	nd	nd
tert-Butlybenzene	149	149	5	25	nd	nd	na	nd	na	na	na	na	na	nd	nd	nd
1,3,5-Trimethylbenzene	89.2	89.2	5	25	nd	4.3J	na	**25**	nd	nd	nd	nd	na	nd	nd	nd
Toluene	7.8	24.3	5	25	**5**	**11**	na	17J	nd	nd	nd	nd	na	nd	nd	nd
Total Xylenes	162.3	13020	5	30	nd	**32**	na	91J	nd	nd	nd	nd	na	nd	nd	nd
Vinyl Acetate	23.6	23.6	10	100	nd	nd	na	nd	na	na	na	na	na	nd	nd	nd
Vinyl Chloride	nd	18	5	25	nd	nd	na	18J	nd	nd	nd	nd	na	nd	nd	nd

Notes:
Bolded values indicates parameter was detected above reporting limit.
J = Analyte was detected below the reporting limit.
na = not analyzed
nd = non-detect
*** - failed QA/QC for VOCs and was resampled
NA = Not Applicable, Maximum Detected Concentration is below the Reporting Limit

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OHIO E.P.A. N.W.D.O.

P:\Projects\Campbell\Tables\SAP\Preliminary Current Backfill Data.xls

Table 1
Previous Backfill Analytical Data Compared to March 2004 Analytical Data
Campbell Soup Supply Company
Napoleon, Ohio

Sample ID	Existing Backfill Series Data Used for Screening				VR-03-13	VR-03-14	CS-02-01	CS-02-02	CS-02-03	CS-02-04	CS-02-05	CS-02-06	CS-02-07	CS-02-08	CS-02-09	CS-02-10	CS-02-11
Depth					na	na	na	na	na	na	na	na	na	na	na	na	na
Sample Date	Min	Max	Min	Max	02/18/03	02/20/03	12/06/02	12/06/02	12/06/02	12/06/02	12/11/02	12/11/02	12/11/02	12/11/02	12/11/02	12/10/02	12/10/02
Units	Conc	Conc	DL	DL	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SVOCs																	
Acenaphthylene	nd	162	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Anthracene	nd	380	330	330	**360**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo (a) Anthracene	nd	1160	330	330	**830**	**440**	nd	170J	210J	nd	nd	nd	nd	nd	**1,160**	nd	nd
Benzo (a) Pyrene	nd	1080	330	330	**660**	**370**	nd	nd	nd	nd	nd	nd	nd	nd	**1,080**	nd	nd
Benzo (b)Fluoranthene	nd	1940	330	330	**1300**	**540**	nd	nd	**450**	nd	nd	nd	nd	**370**	**1,940**	nd	170J
Benzo (g,h,i) Perylene	nd	850	330	330	**840**	**850**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo (k) Fluoranthene	nd	980	330	330	**710**	**480**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzoic Acid	nd	2500	660	3300	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bis(2-ethylhexyl)phthalate	187	13000	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	**13,000**	nd	nd
Carbazole	nd	440	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	1200	330	330	**1200**	**620**	nd	nd	nd	nd	nd	nd	nd	nd	**1,170**	nd	nd
Di-n-butyl phthalate	nd	350	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	**350**	nd	nd
Fluoranthene	nd	3400	330	330	**3200**	**1800**	nd	nd	**630**	nd	nd	nd	190J	**350**	nd	nd	nd
Indeno (1,2,3-cd) Pyrene	nd	640	330	330	**640**	**450**	nd	nd	nd	nd	nd	nd	nd	nd	**590**	nd	nd
2-Methylnaphthalene	nd	1260	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	622	11000	330	330	**1100**	**1000**	nd	nd	nd	nd	nd	nd	nd	nd	**480**	nd	nd
Phenanthrene	nd	2500	330	330	**2400**	**1600**	nd	160J	**460**	nd	nd	nd	nd	nd	**1,440**	nd	nd
Phenol	nd	880	330	330	nd	**880**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	nd	2300	330	330	**1500**	**1400**	nd	nd	**510**	nd	nd	nd	180J	**330**	**2,040**	nd	nd
VOCs																	
Acetone	108	772	50	250	nd	nd	**88**	**398**	**54**	**54**	**57**	**88**	38J	**53**	**77**	26.8J	30.7J
Benzene	4	13	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	nd	31	5	25	nd	nd	4.6J	**31**	**7**	**27**	3.3J	**15**	nd	nd	**6**	4J	2.6J
Butanone 2- (MEK)	12.6	99.3	50	250	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbon Disulfide	nd	17.3	5	100	nd	nd	nd	nd	4J	3.7J	nd	nd	nd	3.6J	nd	nd	nd
Chlorodibromomethane	nd	10.6	5	25	nd	nd	nd	nd	nd	**11**	nd	5J	nd	3.2J	nd	nd	nd
Chloroform	nd	145	5	25	nd	nd	**17**	**145**	**65**	**46**	**57**	**64**	**22**	**9**	**37**	**18**	**6**
Ethylbenzene	29.1	1680	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Hexanone	21.3	53	10	100	nd	nd	nd	17.3J	nd	nd	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	6.96	333	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methyl 4,-2-Propanone (MIBK)	21.6	160	50	250	nd	nd	6.8J	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	nd	32.9	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
n-Propylbenzene	15.1	875	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene	126	967	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
sec-Butlybenzene	21.1	991	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butlybenzene	149	149	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	89.2	89.2	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	7.8	24.3	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	162.3	13020	5	30	nd	nd	nd	nd	nd	nd	nd	nd	4J	nd	nd	nd	nd
Vinyl Acetate	23.6	23.6	10	100	nd	nd	nd	nd	nd	nd	6.5J	9.7J	6.4J	6.4J	**12**	7.1J	9.4J
Vinyl Chloride	nd	18	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

Notes:
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nd = non-detect
*** - failed QA/QC for VOCs and was resampled
NA = Not Applicable, Maximum Detected Concentration is below the Reporting Limit

Table 1
Previous Backfill Analytical Data Compared to March 2004 Analytical Data
Campbell Soup Supply Company
Napoleon, Ohio

Sample ID	Existing Backfill Series Data Used for Screening				CS-02-12	CS-02-13	CS-02-14	CS-02-15	CS-02-16	CS-02-17	IS-02-01	IS-02-02***	IS-02-02 (2)	IS-02-03	PB-04-59	PB-04-59	PB-04-60
Depth					na	na	na	na	na	na	na	na	na	na	0.5-1.0	4.0-4.5	0.5-1.0
Sample Date	Min	Max	Min	Max	12/10/02	12/10/02	12/10/02	12/10/02	12/10/02	12/10/02	12/18/02	12/18/03	03/27/03	12/18/02	03/17/04	03/17/04	03/17/04
Units	Conc	Conc	DL	DL	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SVOCs																	
Acenaphthylene	nd	162	330	330	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Anthracene	nd	380	330	330	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Benzo (a) Anthracene	nd	1160	330	330	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Benzo (a) Pyrene	nd	1080	330	330	nd	nd	180J	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Benzo (b)Fluoranthene	nd	1940	330	330	nd	nd	**370**	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Benzo (g,h,i) Perylene	nd	850	330	330	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Benzo (k) Fluoranthene	nd	980	330	330	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Benzoic Acid	nd	2500	660	3300	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Bis(2-ethylhexyl)phthalate	187	13000	330	330	nd	nd	nd	nd	nd	nd	nd	**672**	na	187J	nd	nd	nd
Carbazole	nd	440	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	1200	330	330	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	**370**	nd	nd
Di-n-butyl phthalate	nd	350	330	330	nd	nd	nd	nd	nd	nd	nd	280J	na	nd	nd	nd	nd
Fluoranthene	nd	3400	330	330	270J	190J	nd	nd	nd	nd	nd	182J	na	nd	**640**	**540**	nd
Indeno (1,2,3-cd) Pyrene	nd	640	330	330	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
2-Methylnaphthalene	nd	1260	330	330	nd	nd	nd	nd	nd	nd	150J	**1260**	na	nd	nd	nd	nd
Naphthalene	622	11000	330	330	nd	nd	nd	nd	nd	nd	**705**	**7600**	**11,000**	**622**	nd	nd	nd
Phenanthrene	nd	2500	330	330	nd	nd	**290**	nd	nd	nd	nd	193J	na	nd	**400**	**370**	nd
Phenol	nd	880	330	330	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd
Pyrene	nd	2300	330	330	260J	190J	nd	170J	nd	nd	nd	nd	na	nd	**530**	**480**	nd
VOCs																	
Acetone	108	772	50	250	26J	43J	**77**	**57**	nd	**58**	**116**	***	nd	**108**	nd	nd	nd
Benzene	4	13	5	25	nd	nd	nd	nd	nd	nd	nd	***	nd	4J	nd	nd	nd
Bromodichloromethane	nd	31	5	25	nd	nd	nd	nd	nd	nd	nd	***	nd	nd	nd	nd	nd
Butanone 2- (MEK)	12.6	99.3	50	250	nd	nd	nd	nd	nd	nd	nd	***	nd	12.6J	nd	nd	nd
Carbon Disulfide	nd	17.3	5	100	nd	nd	nd	nd	nd	nd	nd	***	nd	nd	nd	nd	nd
Chlorodibromomethane	nd	10.8	5	25	nd	nd	nd	nd	nd	nd	nd	***	nd	nd	nd	nd	nd
Chloroform	nd	145	5	25	3.7J	3.2J	4J	**7**	4.3J	4.1J	13J	***	nd	nd	nd	nd	nd
Ethylbenzene	29.1	1680	5	25	nd	nd	nd	nd	nd	nd	**132**	***	**1,680**	**29**	nd	nd	nd
2-Hexanone	21.3	53	10	100	nd	nd	nd	nd	nd	nd	**53**	***	nd	**21**	nd	nd	nd
Isopropylbenzene	6.96	333	5	25	nd	nd	nd	nd	nd	nd	**30.8**	***	**333**	**6.96**	nd	nd	nd
Methyl 4,-2-Propanone (MIBK)	21.6	160	50	250	nd	nd	nd	nd	nd	nd	**55**	***	nd	**21.6**	nd	nd	nd
n-Butylbenzene	nd	32.9	5	25	nd	nd	nd	nd	nd	nd	nd	***	nd	**32.9**	nd	nd	nd
n-Propylbenzene	15.1	875	5	25	nd	nd	nd	nd	nd	nd	**78.7**	***	**875**	**15.1**	nd	nd	nd
p-Isopropyltoluene	126	967	5	25	nd	nd	nd	nd	nd	nd	**126**	***	**967**	**32.3**	nd	nd	nd
sec-Butlybenzene	21.1	991	5	25	nd	nd	nd	nd	nd	nd	**80.8**	***	**991**	**21.1**	nd	nd	nd
tert-Butlybenzene	149	149	5	25	nd	nd	nd	nd	nd	nd	nd	***	**149**	nd	nd	nd	nd
1,3,5-Trimethylbenzene	89.2	89.2	5	25	nd	nd	nd	nd	nd	nd	nd	***	nd	**89.2**	nd	nd	nd
Toluene	7.8	24.3	5	25	nd	nd	nd	nd	**12**	nd	24.3J	***	nd	**7.8**	nd	**8**	nd
Total Xylenes	162.3	13020	5	30	**6**	3.3J	4.2J	4.1J	9.2J	3.1J	**1,109**	***	**13,020**	**162**	nd	nd	nd
Vinyl Acetate	23.6	23.6	10	100	7.8J	6.4J	9.4J	9.7J	7.7J	5.6J	14.8J	***	nd	**24**	nd	nd	nd
Vinyl Chloride	nd	18	5	25	nd	nd	nd	nd	nd	nd	nd	***	nd	nd	nd	nd	nd

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Table 1
Previous Backfill Analytical Data Compared to March 2004 Analytical Data
Campbell Soup Supply Company
Napoleon, Ohio

Sample ID	Existing Backfill Series Data Used for Screening				DUP 2 (PB-04-60)	PB-04-60	PB-04-61	PB-04-61	PB-04-62	PB-04-62	DUP 1 (PB-04-62)	PB-04-62	PB-04-62	PB-04-63	PB-04-63
Depth					0.5-1.0	3.0-3.5	0.5-1.0	4.0-4.5	0.5-1.0	4.0-4.5	4.0-4.5	7.5-8.0	11.0-11.5	0.5-1.0	4.0-4.5
Sample Date	Min	Max	Min	Max	03/17/04	03/17/04	03/17/04	03/17/04	03/17/04	03/17/04	03/17/04	03/17/04	03/17/04	03/17/04	03/17/04
Units	Conc	Conc	DL	DL	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SVOCs															
Acenaphthylene	nd	162	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Anthracene	nd	380	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	**340**	nd
Benzo (a) Anthracene	nd	1160	330	330	nd	nd	nd	nd	nd	nd	nd	**490**	**330**	**1200**	nd
Benzo (a) Pyrene	nd	1080	330	330	nd	nd	nd	nd	nd	nd	nd	**510**	nd	**940**	nd
Benzo (b)Fluoranthene	nd	1940	330	330	nd	nd	nd	nd	nd	nd	nd	**530**	**350**	**730**	nd
Benzo (g,h,i) Perylene	nd	850	330	330	nd	nd	nd	nd	nd	nd	nd	**600**	**430**	**670**	nd
Benzo (k) Fluoranthene	nd	980	330	330	nd	nd	nd	nd	nd	nd	nd	**520**	**380**	**1000**	nd
Benzoic Acid	nd	2500	660	3300	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bis(2-ethylhexyl)phthalate	187	13000	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbazole	nd	440	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	**440**	nd
Chrysene	nd	1200	330	330	nd	nd	nd	nd	nd	nd	nd	**690**	**500**	**1300**	nd
Di-n-butyl phthalate	nd	350	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	3400	330	330	nd	nd	**380**	**370**	**350**	**410**	nd	**1400**	**1100**	**2500**	**440**
Indeno (1,2,3-cd) Pyrene	nd	640	330	330	nd	nd	nd	nd	nd	nd	nd	**430**	nd	**640**	nd
2-Methylnaphthalene	nd	1260	330	330	nd	nd	nd	**690**	nd	**330**	nd	nd	nd	nd	nd
Naphthalene	622	11000	330	330	nd	nd	nd	**710**	nd	nd	nd	**390**	**460**	nd	**430**
Phenanthrene	nd	2500	330	330	nd	nd	nd	**350**	nd	**350**	nd	**970**	**820**	**1500**	**340**
Phenol	nd	880	330	330	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene	nd	2300	330	330	nd	nd	**380**	**350**	nd	**350**	nd	**1100**	**770**	**2000**	**370**
VOCs															
Acetone	108	772	50	250	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzene	4	13	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	nd	31	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Butanone 2- (MEK)	12.6	99.3	50	250	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbon Disulfide	nd	17.3	5	100	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chlorodibromomethane	nd	10.8	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	nd	145	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	29.1	1680	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Hexanone	21.3	53	10	100	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	6.96	333	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methyl 4,-2-Propanone (MIBK)	21.6	160	50	250	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	nd	32.9	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
n-Propylbenzene	15.1	875	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene	126	967	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
sec-Butlybenzene	21.1	991	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butlybenzene	149	149	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	89.2	89.2	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	7.8	24.3	5	25	**9**	nd	nd	nd	nd	nd	nd	**6**	nd	**8**	**7**
Total Xylenes	162.3	13020	5	30	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Acetate	23.6	23.6	10	100	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Chloride	nd	18	5	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

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NA = Not Applicable, Maximum Detected Concentration is below the Reporting Limit

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APPENDIX A

Brighton Analytical L.L.C. TM

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08123**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**370**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08123**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**640**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**400**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Report Number: **71551**
BA Sample ID: **BE08123**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pyrene	**530**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**102**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**79**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**68**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**88**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**46***	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**88**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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BA Report Number: **71551**
BA Sample ID: **BE08123**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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Submit Date: 03/18/2004
Report Date: 03/29/2004

BA Report Number: **71551**
BA Sample ID: **BE08123**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
I,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**96**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**103**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**116**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**93.8**	%		ASTM D-2216	GW	03/19/2004

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BA Report Number: **71551**
BA Sample ID: **BE08123**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08124**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Report Number: **71551**
BA Sample ID: **BE08124**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Sample ID: **BE08124**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**115**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**73**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**80**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**92**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**71**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**90**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08124**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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Sample Date: 03/17/2004
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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08124**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**106**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**100**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**121**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**83.4**	%		ASTM D-2216	GW	03/19/2004

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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08124**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08125**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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To: Geotrans, Inc.
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BA Report Number: **71551**
BA Sample ID: **BE08125**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**380**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**380**	ug/Kg	330	SW846 8270	RG	03/24/2004

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To: Geotrans, Inc.
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BA Report Number: **71551**
BA Sample ID: **BE08125**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**112**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**66**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**85**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**84**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**79**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**99**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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BA Report Number: **71551**
BA Sample ID: **BE08125**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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BA Report Number: **71551**
BA Sample ID: **BE08125**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**98**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**97**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**118**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**89.0**	%		ASTM D-2216	GW	03/19/2004

Brighton Analytical, L.L.C.
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Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08125**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

Brighton Analytical, L.L.C.
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To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

BA Report Number: **71551**
BA Sample ID: **BE08126**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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Sample Date: 03/17/2004
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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08126**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**350**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
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BA Report Number: **71551**
BA Sample ID: **BE08126**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**83**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**73**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**68**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**78**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**51**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**77**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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Report Date: 03/29/2004

To: Geotrans, Inc.
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Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08126**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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Ann Arbor, MI 48108

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

BA Report Number: **71551**
BA Sample ID: **BE08126**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**103**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**98**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**125**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**84.6**	%		ASTM D-2216	GW	03/19/2004

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Sample Date: 03/17/2004
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To: Geotrans, Inc.
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BA Report Number: **71551**
BA Sample ID: **BE08126**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

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Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
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BA Report Number: **71551**
BA Sample ID: **BE08127**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**340**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**1200**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**940**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**730**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**670**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**1000**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**440**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**1300**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08127**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**2500**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**640**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**1500**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**2000**	ug/Kg	330	SW846 8270	RG	03/24/2004

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To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08127**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**104**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**87**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**59**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**97**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**29**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**90**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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BA Report Number: **71551**
BA Sample ID: **BE08127**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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To: Geotrans, Inc.
710 Avis Drive
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BA Report Number: **71551**
BA Sample ID: **BE08127**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**8**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**96**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**101**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**123**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**84.3**	%		ASTM D-2216	GW	03/19/2004

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To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08127**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 0.5-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
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To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08128**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Report Number: **71551**
BA Sample ID: **BE08128**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Report Number: **71551**
BA Sample ID: **BE08128**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**111**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**89**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**94**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**100**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**85**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**95**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Chlorobenzene	**Not detectcd**	ug/Kg	5	SW846 8260	CW	03/29/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Chloroform	**Not dctected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004

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Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08128**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/29/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/29/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004

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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08128**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Toluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/29/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/29/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/29/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**101**	%	70-130	8260	CW	03/29/2004
d8-Toluene	**96**	%	70-130	8260	CW	03/29/2004
Dibromofluoromethane	**108**	%	70-130	8260	CW	03/29/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**80.9**	%		ASTM D-2216	GW	03/19/2004

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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08128**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: Wet Towels

Date: 3/29/04

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Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08129**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-2**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

BA Report Number: **71551**
BA Sample ID: **BE08129**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-2**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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Report Date: 03/29/2004

BA Report Number: **71551**
BA Sample ID: **BE08129**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-2**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**90**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**59**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**67**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**75**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**58**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**80**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004

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BA Report Number: **71551**
BA Sample ID: **BE08129**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-2**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/29/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/29/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004

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Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08129**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-2**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Toluene	**9**	ug/Kg	5	SW846 8260	CW	03/29/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/29/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/29/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/29/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/29/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/29/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**101**	%	70-130	8260	CW	03/29/2004
d8-Toluene	**96**	%	70-130	8260	CW	03/29/2004
Dibromofluoromethane	**84**	%	70-130	8260	CW	03/29/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**83.8**	%		ASTM D-2216	GW	03/19/2004

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Sample Date: 03/17/2004
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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08129**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **Dup-2**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by:

Date: 3/29/04

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Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
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BA Report Number: **71551**
BA Sample ID: **BE08130**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
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BA Report Number: **71551**
BA Sample ID: **BE08130**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**540**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**370**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**480**	ug/Kg	330	SW846 8270	RG	03/24/2004

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To: Geotrans, Inc.
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BA Report Number: **71551**
BA Sample ID: **BE08130**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**128**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**87**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**98**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**107**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**90**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**102**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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To: Geotrans, Inc.
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Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08130**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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BA Report Number: **71551**
BA Sample ID: **BE08130**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**8**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**102**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**97**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**130**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**83.6**	%		ASTM D-2216	GW	03/19/2004

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To: Geotrans, Inc.
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BA Report Number: **71551**
BA Sample ID: **BE08130**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-59 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

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BA Report Number: **71551**
BA Sample ID: **BE08131**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 3.0-3.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08131**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 3.0-3.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Report Number: **71551**
BA Sample ID: **BE08131**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 3.0-3.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**111**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**70**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**90**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**80**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**84**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**87**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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BA Report Number: **71551**
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Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 3.0-3.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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To: Geotrans, Inc.
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BA Report Number: **71551**
BA Sample ID: **BE08131**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 3.0-3.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**96**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**98**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**120**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**83.0**	%		ASTM D-2216	GW	03/19/2004

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To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08131**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-60 3.0-3.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by:

Date: 3/29/04

Brighton Analytical, L.L.C.
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To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08132**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**370**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**690**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**710**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**350**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**350**	ug/Kg	330	SW846 8270	RG	03/24/2004

Brighton Analytical, L.L.C.
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Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08132**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**104**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**56**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**61**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**65**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**57**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**86**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not deteeted**	ug/Kg	5	SW846 8260	CW	03/28/2004

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BA Report Number: **71551**
BA Sample ID: **BE08132**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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BA Report Number: **71551**
BA Sample ID: **BE08132**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**99**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**97**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**127**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**86.2**	%		ASTM D-2216	GW	03/19/2004

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To: Geotrans, Inc.
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BA Report Number: **71551**
BA Sample ID: **BE08132**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-61 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

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BA Report Number: **71551**
BA Sample ID: **BE08133**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Report Number: **71551**
BA Sample ID: **BE08133**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**410**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**330**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**350**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**350**	ug/Kg	330	SW846 8270	RG	03/24/2004

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Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**77**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**73**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**75**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**76**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**73**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**67**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

Brighton Analytical, L.L.C.
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Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08133**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	97	%	70-130	8260	CW	03/28/2004
d8-Toluene	**98**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**128**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**85.6**	%		ASTM D-2216	GW	03/19/2004

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Sample Date: 03/17/2004
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Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08133**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

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Sample Date: 03/17/2004
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Report Date: 03/29/2004

BA Report Number: **71551**
BA Sample ID: **BE08134**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Report Number: **71551**
BA Sample ID: **BE08134**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**440**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**430**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**340**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**370**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Report Number: **71551**
BA Sample ID: **BE08134**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**95**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**72**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**78**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**84**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**71**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**81**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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BA Report Number: **71551**
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Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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Sample ID: **PB-04-63 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**7**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**100**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**99**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**133**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**86.0**	%		ASTM D-2216	GW	03/19/2004

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Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-63 4.0-4.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

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Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08135**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 7.5-8**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**490**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**510**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**530**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**600**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**520**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**690**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08135**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 7.5-8**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**1400**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**430**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**390**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**970**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**1100**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Report Number: **71551**
BA Sample ID: **BE08135**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 7.5-8**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**115**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**86**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**92**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**98**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**86**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**95**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 7.5-8**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 7.5-8**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**6**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
I,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**97**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**99**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**124**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**88.2**	%		ASTM D-2216	GW	03/19/2004

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Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 7.5-8**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by:

Date: 3/29/04

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To: Geotrans, Inc.
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BA Report Number: **71551**
BA Sample ID: **BE08136**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 11-11.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Acenaphthylene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)anthracene	**330**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(a)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(b)fluoranthene	**350**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(g,h,i)perylene	**430**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzo(k)fluoranthene	**380**	ug/Kg	330	SW846 8270	RG	03/24/2004
Benzoic acid	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Benzyl alcohol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethoxy)methane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-chloroethyl)ether	**Not detected**	ug/Kg	100	SW846 8270	RG	03/24/2004
Bis(2-chloroisopropyl)ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Bromophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Butyl benzyl phthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Carbazole	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chloroaniline	**Not detected**	ug/Kg	1300	SW846 8270	RG	03/24/2004
2-Chloronaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Chlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Chlorophenyl phenyl ether	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Chrysene	**500**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzo(a,h)anthracene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dibenzofuran	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Diethylphthalate	**Not deteeted**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4-Dimethylphenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Dimethylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004

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BA Report Number: **71551**
BA Sample ID: **BE08136**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 11-11.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Di-n-butylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4,6-Dinitro-2-methylphenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,6-Dinitrotoluene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Di-n-octylphthalate	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
1,2-Diphenylhydrazine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluoranthene	**1100**	ug/Kg	330	SW846 8270	RG	03/24/2004
Fluorene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Hexachlorocyclopentadiene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
Hexachloroethane	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Indeno(1,2,3-cd)pyrene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Isophorone	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Methylphenol (o-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
3&4Methylphenol(m&p-Cresol)	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Naphthalene	**460**	ug/Kg	330	SW846 8270	RG	03/24/2004
2-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
3-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
4-Nitroaniline	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
Nitrobenzene	**Not detected**	ug/Kg	200	SW846 8270	RG	03/24/2004
2-Nitrophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
4-Nitrophenol	**Not detected**	ug/Kg	1700	SW846 8270	RG	03/24/2004
N-Nitrosodimethylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
N-Nitrosophenylamine	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pentachlorophenol	**Not detected**	ug/Kg	800	SW846 8270	RG	03/24/2004
Phenanthrene	**820**	ug/Kg	330	SW846 8270	RG	03/24/2004
Phenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
Pyrene	**770**	ug/Kg	330	SW846 8270	RG	03/24/2004

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08136**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 11-11.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,5-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
2,4,6-Trichlorophenol	**Not detected**	ug/Kg	330	SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**100**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**82**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**87**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**90**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**82**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**91**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis(Sodium Bisulfate preserved)						
Acetone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Acrylonitrile	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromodichloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromoform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Bromomethane(Methyl Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Butanone (MEK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon disulfide	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Carbon tetrachloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloroform	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Chloromethane(Methyl Chloride)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
4-Chlorotoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
cis-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

Brighton Analytical, L.L.C.
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Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08136**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 11-11.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
cis-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromochloromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dibromoethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dibromomethane(Methylene Bromide)	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,4-Dichlorobenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Dichlorodifluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2-Dichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Diethyl ether	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Ethyl benzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachlorobutadiene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Hexachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Hexanone	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Isopropylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl iodide	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Methylene chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
2-Methylnaphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
Naphthalene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
n-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
n-Propylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
p-Isopropyltoluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
sec-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Styrene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
tert-Butylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004

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Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08136**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 11-11.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2,2-Tetrachloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Tetrachloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Toluene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,2-Dichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,3-Dichloropropene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
trans-1,4-Dichloro-2-butene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,2,4-Trichlorobenzene	**Not detected**	ug/Kg	25	SW846 8260	CW	03/28/2004
1,1,1-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,1,2-Trichloroethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichloroethene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Trichlorofluoromethane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,3-Trichloropropane	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,2,4-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
1,3,5-Trimethylbenzene	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Vinyl Acetate	**Not detected**	ug/Kg	50	SW846 8260	CW	03/28/2004
Vinyl chloride	**Not detected**	ug/Kg	5	SW846 8260	CW	03/28/2004
Xylenes	**Not detected**	ug/Kg	15	SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**94**	%	70-130	8260	CW	03/28/2004
d8-Toluene	**97**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**125**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**87.4**	%		ASTM D-2216	GW	03/19/2004

Brighton Analytical, L.L.C.
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Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08136**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 11-11.5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

Brighton Analytical, L.L.C.
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Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08137**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 11-11.5 Matrix Spike**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**89%**	%		SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**82%**	%		SW846 8270	RG	03/24/2004
2-Chlorophenol	**74%**	%		SW846 8270	RG	03/24/2004
1,4-Dichlorobenzene	**72%**	%		SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**89%**	%		SW846 8270	RG	03/24/2004
4-Nitrophenol	**95%**	%		SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**93%**	%		SW846 8270	RG	03/24/2004
Pentachlorophenol	**67%**	%		SW846 8270	RG	03/24/2004
Phenol	**82%**	%		SW846 8270	RG	03/24/2004
Pyrene	**98%**	%		SW846 8270	RG	03/24/2004
1,2,4-Trichlorobenzene	**81%**	%		SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**92**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**87**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**91**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**89**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**86**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**90**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis						
Benzene	**106%**	%		SW846 8260	CW	03/28/2004
Chlorobenzene	**95%**	%		SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**127%**	%		SW846 8260	CW	03/28/2004
Toluene	**103%**	%		SW846 8260	CW	03/28/2004
Trichloroethene	**116%**	%		SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**88**	%	70-130	8260	CW	03/28/2004

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Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08137**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 11-11.5 Matrix Spike**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
d8-Toluene	**98**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**129**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**87.7**	%		ASTM D-2216	GW	03/19/2004

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08138**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 11-11.5 Matrix Spike Dup**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**95%**	%		SW846 8270	RG	03/24/2004
4-Chloro-3-methylphenol	**87%**	%		SW846 8270	RG	03/24/2004
2-Chlorophenol	**79%**	%		SW846 8270	RG	03/24/2004
1,4-Dichlorobenzene	**77%**	%		SW846 8270	RG	03/24/2004
2,4-Dinitrotoluene	**97%**	%		SW846 8270	RG	03/24/2004
4-Nitrophenol	**108%**	%		SW846 8270	RG	03/24/2004
N-Nitrosodi-n-propylamine	**97%**	%		SW846 8270	RG	03/24/2004
Pentachlorophenol	**72%**	%		SW846 8270	RG	03/24/2004
Phenol	**86%**	%		SW846 8270	RG	03/24/2004
Pyrene	**102%**	%		SW846 8270	RG	03/24/2004
1,2,4-Trichlorobenzene	**87%**	%		SW846 8270	RG	03/24/2004
BNA (extraction)	**Extracted**			3510/3550	LS	03/18/2004
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**95**	%	60-140	8270/625	RG	03/24/2004
d5-Nitrobenzene	**91**	%	60-140	8270/625	RG	03/24/2004
d6-Phenol	**96**	%	60-140	8270/625	RG	03/24/2004
2-Fluorobiphenyl	**95**	%	60-140	8270/625	RG	03/24/2004
2-Fluorophenol	**91**	%	60-140	8270/625	RG	03/24/2004
2,4,6-Tribromophenol	**95**	%	60-140	8270/625	RG	03/24/2004
Volatile Analysis						
Benzene	**93%**	%		SW846 8260	CW	03/28/2004
Chlorobenzene	**85%**	%		SW846 8260	CW	03/28/2004
1,1-Dichloroethene	**133%**	%		SW846 8260	CW	03/28/2004
Toluene	**86%**	%		SW846 8260	CW	03/28/2004
Trichloroethene	**96%**	%		SW846 8260	CW	03/28/2004
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**89**	%	70-130	8260	CW	03/28/2004

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Sample Date: 03/17/2004
Submit Date: 03/18/2004
Report Date: 03/29/2004

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **71551**
BA Sample ID: **BE08138**

Project Name: **Campbells**
Project Number: **4603.003.06**
Sample ID: **PB-04-62 11-11.5 Matrix Spike Dup**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
d8-Toluene	**99**	%	70-130	8260	CW	03/28/2004
Dibromofluoromethane	**131**	%	70-130	8260	CW	03/28/2004
5035 Sodium Bisulfate Meth. Pres	**Extracted**			EPA 5035	WT	03/18/2004
%Solid	**87.4**	%		ASTM D-2216	GW	03/19/2004

All soil results based on dry weight.

DL=Detection Limit as recommended by MDEQ

Released by: [signature]

Date: 3/29/04

BA Brighton Analytical, L.L.C.™
2105 Pless Drive
Brighton, MI 48114
Phone: 810-229-7575
Fax: 810-229-8650

BA PROJECT #: 71551

ABBREVIATIONS FOR MATRIX
S = Solid
L = Liquid
DW = Drinking H_2O
WW = Wastewater
O = Oil
P = Wipe
A = Air (Tedlar Bag)
F = Filter
T = Tube
M = Methanol

COMPANY NAME: GEOTRANS
PROJECT NAME: CAMPBELLS
PROJECT NUMBER: 4603.003.06
P. O. NUMBER:

REQUESTED TURNAROUND: (circle one)
Rush: 1-3 business days (verify with lab & specify date needed)
Expedited: 5 business days
Standard: 10 business days

If RUSH, approved by: _____

Analysis Requested/Method

Brighton ID #	Sample Description	Sampling Time	Sampling Date	VOA'S (PRES) Y N	HDPE UNPRESERVED	HDPE HNO_3	HDPE H_2SO_4	HDPE NAOH	AMBER	GLASS H_2SO_4	GLASS, NO PRESERVATIVE	MEOH Preserved (F)ield or (L)ab Preserved Encore	Sample Matrix	FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTERED	VOCs 8260B (See Attached Letter)	SVOCs 8270	Sodium Bisulfate Preserved (5035)				
BE 1) 8123	PB-04-59 0.5-1	11:10	3/17								2	4	S		X	X	X				
2) 8124	PB-04-60 0.5-1	11:30																			
3) 8125	PB-04-61 0.5-1	10:20																			
4) 8126	PB-04-62 0.5-1	9:00																			
5) 8127	PB-04-63 0.5-1	11:45																			
6) 8128	DUP-1	10:00									1	2									
7) 8129	DUP-2	11:30									1	2									
8)																					
9)																					
10)																					
11)																					

Sodium Bisulfate
METHANOL
EPA 5035
7 14 51
3/18/04

PAGE 1 OF 2

REPORT RESULTS TO:
MIKE KOVACICH

Attn:

PHONE:
FAX:

Sample received within holding time? yes ☐ no ☐

For TCLP ONLY – Federal Limits ☐ Other ☐

Samples intact: yes ☐ no ☐ (if no, see belo

Note samples if not intact:

Headspace/bubbles in VOA'S? yes ☐ no ☐ n/a ☐

Sample containers and COC match? yes ☐ no ☐

Comments:

Extra Sample containers have been provided to provide enough sample in case QA/QC fails. Please extract enough sample to rerun analytical following review of the 1st run results

Temperature of Samples °C: 4

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	[signature]	[signature]	3/18/04		3				
2	[signature]	[signature]	3/18/04	10:30	4				

Brighton Analytical, L.L.C.™
2105 Pless Drive
Brighton, MI 48114
Phone: 810-229-7575
Fax: 810-229-8650

BA PROJECT #: 71551

ABBREVIATIONS FOR MATRIX
S = Solid
L = Liquid
DW = Drinking H_2O
WW = Wastewater
O = Oil
P = Wipe
A = Air (Tedlar Bag)
F = Filter
T = Tube
M = Methanol

COMPANY NAME:

PROJECT NAME:

PROJECT NUMBER: See page 1

P. O. NUMBER:

REQUESTED TURNAROUND: (circle one)
Rush: 1-3 business days (verify with lab & specify date needed)
Expedited: 5 business days
Standard: 10 business days

If RUSH, approved by: _____

Analysis Requested/Method

Brighton ID #	Sample Description	Sampling Time	Sampling Date	VOA'S (PRES) Y N	HDPE UNPRESERVED	HDPE HNO_3	HDPE H_2SO_4	HDPE NAOH	AMBER	GLASS H_2SO_4	GLASS, NO PRESERVATIVE	MEOH Preserved: ENCORE (F)ield or (L)ab Preserved	Sample Matrix	FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTERED	VOCs 8260B (See Attached)	SVOCs 8270	Sodium Bisulfate (5035 Lab preserved)				
BE 1) 8130	PB-04-59 4.0-4.5	11:20	3/17								2	4	S		X	X	X				
2) 8131	PB-04-60 3.0-3.5	11:45																			
3) 8132	PB-04-61 4.0-4.5	10:30																			
4) 8133	PB-04-62 4.0-4.5	9:30																			
5) 8134	PB-04-63 4.0-4.5	10:55																			
6) 8135	PB-04-62 7.5-8	9:40																			
7) 8136	PB-04 62 11-11.5	10:00																			
8)																					
9) 8137	PB-04-62 11-11.5 MATRIX Spike																				
10) 8138	PB-04-62 11-11.5 MATRIX Spike Duplicate																				
11)																					

REPORT RESULTS TO:
MIKE KOVALICH

Attn:

PHONE:
FAX:

Sample received within holding time? yes ☐ no ☐

For TCLP ONLY – Federal Limits ☐ Other ☐

Samples intact: yes ☐ no ☐ (if no, see below)

Note samples if not intact:

Headspace/bubbles in VOA'S? yes ☐ no ☐ n/a ☐

Sample containers and COC match? yes ☐ no ☐

Comments:
See page 1

Sodium Bisulfate
~~METHANOL~~ EPA 5035 (14) 51
3/18/04

Temperature of Samples °C: 4

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	[signature]	[signature]	3/18/04		3				
2	[signature]	[signature]	3/18/04	10:30	4				

GeoTrans, Inc.
A TETRA TECH COMPANY

710 Avis Drive
Ann Arbor, MI 48108

www.geotransinc.com

734-213-2204 FAX 734-213-5008

Dear Sample Check In,

To ensure compliance with the Ohio EPA approved Sampling and Analysis Plan (SAP) please include the following items in your analytical reports:

1. In addition to your standard 8260b parameter scan please include the following 9 VOCs:
   - 1,1-dichloropropene
   - bromobenzene
   - 2-chlorotoluene
   - 4-chlorotoluene
   - tert-butylbenzene
   - sec-butylbenzene
   - 1,2-dibromo-3-chloropropane
   - hexachlorobutadiene
   - vinyl acetate

2. Detection limits should match those posted in Table 1 (a copy of the table is attached) of the SAP.

3. J values should be posted.

4. Level IV QA/QC package, with case narrative, should be provided.

If you should have any question regarding the chain of custody and this letter please do not hesitate to call me at 734.213.5024.

Michael S. Kovacich, CPG

Senior Hydrogeologist

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

March 5, 2004

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Sampling and Analysis Plan Approval
Campbell Soup Supply Company, Napoleon
Former Holding Pit
OHD 005 419 171

Dear Dr. Aly:

On February 2, 2004, Campbell Soup Company submitted to the Ohio Environmental Protection Agency (Ohio EPA) a sampling and analysis plan (SAP) for the former holding pit located in Napoleon, Ohio. This document was titled *RCRA Site Closure Sampling and Analysis Plan*. Ohio EPA reviewed this document and issued comments to Campbell Soup Company on February 19, 2004. Campbell Soup Company issued a revised document titled *RCRA Site Closure Revised Sampling and Analysis Plan* on February 24, 2004.

Ohio EPA has reviewed the *RCRA Site Closure Revised Sampling and Analysis Plan* and is hereby approving the SAP. Campbell Soup Company shall notify the Ohio EPA at least five (5) days prior to beginning the field work associated with the SAP.

Sincerely,

Kara M Reynolds

Kara Reynolds
Division of Hazardous Waste Management

/lb
cc: Kara Reynolds, Ohio EPA, NWDO
DHWM, NWDO Henry County File "Campbell Soup Company, 2004"
ec: Stephanie Beak, Ohio EPA, CO
Erik Hagen, Ohio EPA, CO
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Dr. Osman M. Aly, Campbell Soup Company, Camden
Michael Maringer, Campbell Soup Company, Napoleon
Tesha Humphriss, GeoTrans, Inc., Ann Arbor
Michael Kovacich, GeoTrans, Inc., Ann Arbor

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OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 **FAX:** (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

February 19, 2004

Dr. Osman M. Aly
Environmental Coordinator
Campbell Soup Company
1 Campbell Place
Camden, New Jersey 08103-1799

Re: Former Holding Pit
RCRA Site Closure Sampling and Analysis Plan
Campbell Soup Supply Company, Napoleon
OHD 005 419 171

Dear Dr. Aly:

On February 2, 2004, this office received a document titled *RCRA Site Closure Sampling and Analysis Plan: Former Holding Pit Unit*. This document described a sampling and analysis plan for a sampling event to aid in the closure at the Napoleon site. Ohio EPA has reviewed the document and offers the following comments:

1. General. Campbell Soup Company (CSC) does not describe quality assurance/quality control (QA/QC) measures to be implemented during this sampling event. The Ohio Environmental Protection Agency (Ohio EPA) would like to remind CSC that Ohio EPA approved QA/QC measures should be followed during this sampling and analysis event to ensure the validity of the data. CSC shall provide Ohio EPA with enough QA/QC information to complete Ohio EPA's Data Validation Plan Review Form included in the September 4, 2003, Notice of Deficiency (NOD) letter as Appendix II, Tier I Checklist. This required information includes, but is not limited to, the following: completed chain of custody forms, signed laboratory statement, date samples received by laboratory, date samples extracted by laboratory, date samples analyzed by laboratory, method blank data, field blank data, laboratory control sample data, matrix spike data, and matrix spike duplicate data. CSC shall revise the Sampling and Analysis Plan (SAP) to include the necessary QA/QC procedures.

   Ohio EPA would also like to specifically request that duplicates be acquired at a rate of one duplicate per 10 samples, one duplicate sample per day, and at least two duplicate samples per the entire sampling event. CSC shall revise the SAP to include this procedure.

2. Section 2.2, Sampling Locations, Page 5. CSC does not propose to collect extra soil samples. Ohio EPA would like to recommend that extra samples be collected and held in case QA/QC or other problems demonstrate the necessity for additional samples.

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3. Section 2.3, Sampling Procedure, Page 6. CSC has made several references to utilizing a photoionization detector (PID). A PID does not register the presence of semi-volatile organic compounds (SVOCs) and since the majority of the chemicals of concern (COCs) that are expected to exist in these samples are SVOCs, Ohio EPA does not understand the relevance to using this instrument. CSC shall add language in this section to clearly state that Encore samples for volatile constituents shall be taken first, prior to taking soil for screening purposes.

4. Section 2.3, Sampling Procedure, Page 6. CSC has not described waste handling procedures to be utilized during the sampling event. CSC shall revise the SAP to provide this information. CSC shall also include the process used to handle both the solid and liquid waste from the sampling event, where the waste will be disposed, how the waste will be transported, estimates of the volume of solid/liquid waste that will be generated from the sampling event, etc.

5. Section 2.4, Laboratory Analysis, Page 7. CSC has omitted an important analytical method from this section. CSC shall revise the SAP to include Method 5035 in this section.

6. Section 2.4, Laboratory Analysis, Page 7. It is unclear as to whether constituents will be removed from the list of analysis while using the specified EPA methods. CSC will analyze all samples for the appropriate list of COCs that correspond with the EPA 8260B and 8270 methods, including all 68 site specific COCs. CSC will not remove any COCs from the list of analysis for these methods.

7. Section 2.4, Laboratory Analysis, Page 7. Ohio EPA has found that the definition of "reporting limit" varies depending on the laboratory employed. As such, CSC shall revise the SAP to include a definition for reporting limit in this section.

   Also, CSC shall describe the reporting procedures in more detail. CSC shall include in the revised SAP whether results above the method detection limit will be reported and steps taken if the reporting limit is elevated above the risk level.

8. Section 2.5, Data Evaluation, Page 7. CSC describes the screening criteria as the following: "The minimum screening concentration is equal to the reporting limit. The maximum screening concentration was calculated by multiplying the existing maximum detected concentration by 1.15." CSC shall revise the screening analysis discussion in this section and all subsequent sections to demonstrate that the minimum screening criteria is the minimum detection limit and the maximum screening criteria is the maximum detected concentration. If the results from the sampling event do not correspond with these levels, then alternatives will be proposed. Until then, Ohio EPA requests that the data lists not be manipulated.

9. Section 3.2, Risk Assessment Methodology, Page 9. The first sentence in this section reads "The maximum detected concentration or Upper Confidence Limit (UCL) for each chemical of concern, except the five described below, will be divided by . . . " CSC proceeds to reference Comment 37 of the NOD dated September 4, 2003. Ohio EPA's reasoning behind Comment 37 is based on different criteria including, but not limited to, frequency of detection of these COCs and remediation/removal of the corresponding sampled soil. If these COCs are present in any samples, then these chemicals will need to be evaluated. As such, Ohio EPA requests that CSC proceed by assuming that the five COCs listed in this section will be included in the risk assessment. If all samples show that these five COCs are not detected, then they will not be included in the risk assessment as long as the criteria in Comment 37 of the NOD are met. CSC shall delete all references in the SAP that exclude the five COCs in the risk assessment.

10. Section 3.2.1, Preliminary Risk Assessment, Page 10. The first sentence of this section reads "The maximum concentration of each COC (except the five specified above) from the 165 samples shown in Table 3 . . . " Table 3 lists 170 samples from the closure. Of these 170 samples, Ohio EPA believes that 169 of these samples should be included in the risk assessment. Sample IS-02-02 did not meet QA/QC qualifications and was resampled. This sample does not need to be included in the evaluation. However, CSC has not provided an explanation on the four remaining samples omitted from the risk assessment. Ohio EPA requests that CSC explain the reasons for excluding these samples.

11. Table 1, Chemicals of Concern with GCN's. CSC does not list the units associated with the reporting limit on this table. CSC shall include this information in the revised SAP.

12. Table 1, Chemicals of Concern with GCN's. CSC has not included the five COCs that were referenced in Comment 37 of the September 4, 2003, NOD. CSC shall revise the table to include the five COCs that were omitted as explained in Section 3.2, Risk Assessment Methodology.

13. Table 2, Existing Backfill Analytical Data. Ohio EPA accepts J valued data. As such, CSC shall revise this table to show the maximum concentration under "Screening Criteria" regardless of its estimated value.

14. Table 2, Existing Backfill Analytical Data. The minimum concentration under "Screening Criteria" is not always listed as the minimum detection limit. CSC shall revise the table to show the minimum concentration under "Screening Criteria" to be the minimum detection limit.

15. Table 2, Existing Backfill Analytical Data. CSC has shown the maximum concentration under "Screening Criteria" as the maximum concentration of the COC multiplied by 1.15. CSC shall revise this column to show that the maximum concentration under "Screening Criteria" is the maximum concentration of the COC.

If the results from the sampling event do not correspond with these levels, then alternatives will be reviewed. Until then, Ohio EPA requests that the data lists not be manipulated.

Please provide a revised Sampling and Analysis Plan (SAP) within thirty (30) days of the receipt of this letter.

The revised SAP should be prepared in accordance with the following editorial protocol or convention:

1) Old Language is over-struck, but not obliterated.

2) New Language is capitalized.

3) Page headers should indicate date of submission.

4) If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

If you wish to arrange a meeting to discuss responses to this letter, please contact me at (419) 373-3065 at your convenience.

Sincerely,

Kara Reynolds

Kara Reynolds
Division of Hazardous Waste Management

/llr

pc: Erik Hagen, Ohio EPA, CO
Stephanie Beak, Ohio EPA, CO
John Pasquarette, Ohio EPA, NWDO
Michael Terpinski, Ohio EPA, NWDO
Kara Reynolds, Ohio EPA, NWDO
DHWM, NWDO File "Campbell Soup 2004"
Michael Maringer, Campbell Soup Company, Napoleon
Michael Kovacich, GeoTrans, Inc., Ann Arbor
Tesha Humphriss, GeoTrans, Inc., Ann Arbor

Henry Co.
" Campbell Soup
2004 "

From: "Michael Kovacich" <mkovacich@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 2/18/04 9:35AM
Subject: Re: Quick Question

Kara,

It is impossible to know specifically where the soil sample locations from the CS series, the IS series and the VR series are, aside from somewhere in the backfill. These samples were collected from soil stockpiles prior to placement as backfill in the excavation. So, the simple answer to your question is "no".

How is the review of the SAP going?

Mike

>>> "Kara Reynolds" <Kara.Reynolds@epa.state.oh.us> 02/18/04 07:24AM >>>
Good Morning Michael,

Just a quick question for you. Looking at the map of how the holding pit looks now, is there any way to say where certain samples are in the backfill?

I'm pretty sure the answer is no, but I wanted to double check.

Thanks,

Kara

Henry Co
"Campbell Soup
2004"

From: <osman_aly@campbellsoup.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 2/17/04 11:40AM
Subject: Re: Sampling and Analysis Plan

Kara:

Many thanks for your comments and I am glad you are aware of Campbell's interest in closing this project as soon as feasible. No sampling will take place till all the issues have been resolved and we get the needed approval of the SAP. However, I would appreciate your help and assisstance in expediting this process so we would have a successful closure in a reasonable amount of time.

Sincerely,

OSMAN M ALY

Kara.Reynolds@epa.state.oh.us 02/17/2004 08:53 AM

To: Osman Aly/US/CAMPSOUP/CSC@CSC, mkovacich@geotransinc.com, thumphriss@geotransinc.com
cc: erik.hagen@epa.state.oh.us, Michael.Terpinski@epa.state.oh.us, stephanie.beak@epa.state.oh.us
Subject: Sampling and Analysis Plan

Dr. Aly,

I received your voice mail this morning and tried to contact you via phone. I left a message and decided to send this e-mail as well.

I understand that you would like to go ahead and take the proposed samples from the Sampling and Analysis Plan (SAP) dated January 30, 2004. However, I would recommend that Campbell's NOT sample until the SAP has been approved. I am in the process of finalizing comments from our offices and hope to have these comments completed by the end of the week. I understand that this entire closure process has taken longer than expected and I understand Campbell's need to complete closure ASAP. However, I would not feel comfortable allowing Campbell's to sample before the SAP has been approved. There are some technical issues that still remain and to avoid any more problems, I would not sample the former holding pit yet.

Please feel free to call me at your convenience.

Respectfully,

Kara Reynolds

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

****
This e-mail and any files transmitted with it may contain confidential information and is intended solely for use by the individual to whom it is addressed. If you received this e-mail in error, please notify the sender, do not disclose its contents to others and delete it from your system.

****

CC: <erik.hagen@epa.state.oh.us>, <Michael.Terpinski@epa.state.oh.us>, <mkovacich@geotransinc.com>, <stephanie.beak@epa.state.oh.us>, <thumphriss@geotransinc.com>

Hard Copy
"Campbell Soup
2004"

From: Erik Hagen
To: Kara Reynolds
Date: 2/17/04 1:31PM
Subject: Campbell's SAP

Kara,

I'm basically OK with the SAP. I do have some concerns. They are:

1. How do the proposed locations correlate with previous sampling results?
(you already said that you thought the locations were OK)

2. 2.3 Sampling Procedure. They SAP did not discuss quality control samples. In particular duplicates samples and the frequency of duplicate sample acquisition. This is somewhat important for this case. If duplicates samples show short scale heterogeneity, then this may affect our interpretation.

3. Section 2.4 Laboratory Analysis/ Data Evaluation . The SAP should spell out the reporting limits that the lab will use to present the data. Since we are dealing with comparing two sets of samples and comparing the overall results to risk values, we need to know what will happen it the RL is elevated compared to the risk level or if the RL will be different from the data we are comparing. In addition, we need to know if results below the RL will be reported (ie. will any value above the MDL be reported).

4. Section 2.4 Sampling Procedure. They SAP speaks of using a PID to evaluate a core. Why? We are not deciding on core intervals to sample. In addition, PID is not effective for SVOCs. The SAP must clearly state that Encore samples for volatile constituents must be taken first, prior to taking soil for screening.

5. 2.4 Laboratory Analysis. Method 5035 should be included in this section.

6. 2.5 Data Evaluation: I don't understand the proposed screening method. As far as I remember it was not discussed. However, I'm open to any type of evaluation. At this point, I'm reluctant to agree to this approach. I'd rather look at the data from several different angles which may even include statistics. I would prefer that the language include some acknowledgment that other evaluation methods will be used to assess the data.

Let me know if you have any questions,

Erik

CC: Stephanie Beak

Henry Co
"Campbell Soup
2004"

From: Kara Reynolds
To: mkovacich@geotransinc.com; osman_aly@campbellsoup.com; thumphriss@geotransinc.com
Date: 2/17/04 8:53AM
Subject: Sampling and Analysis Plan

Dr. Aly,

I received your voice mail this morning and tried to contact you via phone. I left a message and decided to send this e-mail as well.

I understand that you would like to go ahead and take the proposed samples from the Sampling and Analysis Plan (SAP) dated January 30, 2004. However, I would recommend that Campbell's NOT sample until the SAP has been approved. I am in the process of finalizing comments from our offices and hope to have these comments completed by the end of the week. I understand that this entire closure process has taken longer than expected and I understand Campbell's need to complete closure ASAP. However, I would not feel comfortable allowing Campbell's to sample before the SAP has been approved. There are some technical issues that still remain and to avoid any more problems, I would not sample the former holding pit yet.

Please feel free to call me at your convenience.

Respectfully,

Kara Reynolds

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: Beak, Stephanie; Hagen, Erik; Terpinski, Michael

GeoTrans, Inc.
A TETRA TECH COMPANY

LETTER OF TRANSMITTAL

710 Avis Drive, Ann Arbor, MI 48108 ■ (734) 213-2204 ■ (734) 213-5008 (FAX)

RECEIVED
DEC 17 2004
OEPA
NWDO

TO: KARA REYNOLDS
DIVISION OF HAZARDOUS WASTE MAN.
NORTHWEST DISTRICT OFFICE
347 NORTH DUNBRIDGE ROAD
BOWLING GREEN, OHIO 43402

DATE: 1-30-04
RE: CAMPBELLS
JOB NO: 4603.003

This document can be found in the NWDO DHWM Facility Document Library

We are sending you the following:

No. Of Copies	Description
3	RCRA SITE CLOSURE SAMPLING AND ANALYSIS PLAN
	FORMER HOLDING PIT UNIT CAMPBELL SOUP SUPPLY CO.
	NAPOLEON, OHIO

These are Transmitted as checked below:

- ☐ For approval
- ☐ For your use
- ☐ As requested
- ☐ For review and comment
- ☐ Approved as submitted
- ☐ Approved as noted
- ☐ Returned for corrections
- ☐ Other _____

REMARKS:

KARA,

PLEASE FIND 3 COPIES OF THE SAP PER YOUR REQUEST

PLEASE CALL IF YOU HAVE QUESTIONS

THANK YOU,

Transmitted by:
- ___ First Class Mail
- X Federal Express
- ___ Courier
- ___ Registered Mail
- ___ UPS
- ___ Other _____

Signed: Michael Hamilton

cc: DR. OSMAN M. ACY
CAMPBELL SOUP COMPANY

Henry Co
"Campbell Soup 2004"

From: Kara Reynolds
To: mkovacich@geotransinc.com
Date: 1/15/04 3:44PM
Subject: DRAFT SAP Comments

Michael,

Here are the comments for the DRAFT SAP. Please let me know when the results come back from the final survey and we can discuss the sampling locations.

Call me if you have questions on anything.

Thanks,

Kara

Kara Reynolds
Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 373-3065
kara.reynolds@epa.state.oh.us

CC: Beak, Stephanie; Hagen, Erik; osman_aly@campbellsoup.com; Terpinski, Michael; thumphriss@geotransinc.com

Comments on the DRAFT SAP

Section 2.2, Sampling Locations-Ohio EPA would like to note that the final sampling locations have not yet been determined. After the January 13, 2004 phone conversation with Campbell Soup Company (CSC), Ohio EPA understands that CSC will determine the different depths of backfill from the results of the final survey. The depth of the borings and samples will depend on the depth of the backfill. CSC needs to collect at least 12 samples for analysis. CSC will core and sample down to the bottom of the backfill in the final sample locations. Assuming a three foot tube interval, CSC shall take a sample at each three foot interval at each sample location. If there are more than three intervals (and thus more than three samples) at one soil boring location, then CSC will submit the sample from the top of the backfill, the bottom of the backfill and a middle sample. CSC will hold the extra sample(s) from the middle of the soil boring in case they are needed for further characterization or as hold samples. Ohio EPA recommends that extra samples (and thus extra borings) be taken as hold samples if the depth of backfill is not greater than three intervals at each sampling point.

Section 2.4, Laboratory Analysis-CSC will analyze the soil samples for the 68 chemicals of concern (COCs) utilizing the same analytical methods as in previous closure samples. CSC will not remove any COCs from the list of analytes.

Section 2.5, Data Evaluation-Line three of this paragraph should include language that states COCs detected in the existing backfill will not only be identified, but will also be quantified.

Section 2.5, Data Evaluation-It is unclear how the range of acceptable concentrations has been determined. CSC shall explain in better detail how this range will be derived. Also, Ohio EPA requests that the following ranges be included in the revised SAP.

a. The range of detection limits for each COC.
b. The range of detected values for each COC.
c. The overall range (the minimum detection limit to the maximum detected value) for each COC.

Section 2.5, Data Evaluation-CSC shall include the following wording at the end of this section. "If it is determined that the analytical results from this sampling event are not consistent with the sampling results from the previous sampling events, then CSC will work with Ohio EPA to determine the next step in this closure. This may include, but is not limited to, a full definition of the extent of contamination".

Section 3.2, Risk Assessment Methodology-CSC has not listed the non-cancer risk level correctly. The second sentence shall include the following language "...Non-Cancerous ratios that is I.0 or less and a sum of the...".

Section 3.2.2, Limited Statistical Evaluation-CSC will use ½ the detection limit for each specific

sample in the statistical evaluation. CSC will also include the detection limit for each sample in the SAP.

Henry Co
"Campbell
Soup 2004"

From: "Tesha Humphriss" <thumphriss@geotransinc.com>
To: <Kara.Reynolds@epa.state.oh.us>
Date: 1/9/04 11:25AM
Subject: DRAFT Outline for SAP

Kara,

Attached to this e-mail is a DRAFT outline of a sampling and analysis plan (SAP) for the Campbell site in Napoleon, Ohio. Please review. As you will note in the outline, a survey crew is scheduled to be on site next week to complete staking of the grid nodes you and Mike discussed and to complete a final grade survey. The survey data will be processed prior to submittal of the SAP. Please let us know if you have any concerns with the proposed content for the SAP.

Tesha Humphriss
Project Engineer
GeoTrans, Inc
(734) 213 4068 direct
(734) 213 5008 fax
thumphriss@geotransinc.com

CC: <osman_aly@campbellsoup.com>, "Michael Kovacich" <mkovacich@geotransinc.com>, <O.ALY@worldnet.att.net>

DRAFT

DRAFT OUTLINE FOR SAP

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DRAFT

DRAFT OUTLINE FOR SAP

1.0 GENERAL

1.1 Site Status

Summarize site status including December 8, 2003 correspondence (chose Option c)

1.2 Purpose and Scope

The Purpose of the SAP will be to collect soil samples to validate the existing data currently used to characterize the backfill sample series (the clean soil stockpile (CS), the intermediate soil stockpile (IS), and the verification of remediation (VR) samples). If the new data is consistent with the previous data, then Campbells will proceed with the statistical and risk assessment methods as outlined in this SAP to obtain unrestricted closure of the site.

DRAFT OUTLINE FOR SAP

2.0 SAMPLING PLAN

2.1 Site Survey

Four soil boring locations will be staked by a field survey crew at the following grid nodes within the backfill area (the grid nodes are shown in Figure 6 sent to you on October 28, 2003):

- 40 W : 40 N
- 40 W : 120 N
- 80 W : 40 N
- 80W : 120 N

These four locations will re-establish the sampling grid used during remediation activities at this site. In addition, an elevation survey will be completed to determine the final grade. Survey work will occur during the week of January 12, 2003, prior to submittal of the SAP.

2.2 Sampling Locations

The four locations described above were chosen to represent each ¼ of the backfill area. We are proposing 2 discrete samples (shallow and deep) be collected from each location. The shallow sample will be collected between 0.5 and 1-foot below surface grade. The deep sample will be collected between 1 and 1.5-feet above the bottom of the backfill. The thickness of the backfill will be determined from the final grade and final excavation surveys. Following receipt of the survey data, the depths of the samples will be finalized based on the thickness of the backfill.

2.3 Sampling Procedure

A GeoProbe™ utilizing dual tube drilling methods will be used to collect the soil samples.

2.4 Laboratory Analysis

Soil samples will be analyzed for VOCs and SVOCs by EPA Methods 8260B and 8270, respectively. Specifically, the soil samples will be analyzed for the following chemicals of concern: *(68 COCs as defined in the Certification Report)*

2.5 Data Evaluation

The existing data currently used to characterize the backfill consists of the clean soil stockpile samples (CS), the intermediate soil stockpile samples (IS), and the verification of remediation (VR) samples. COCs that are detected in the existing backfill will be identified. A range of acceptable minimum and maximum concentrations for the identified COCs will be outlined in this section and will be based on the current analytical data from the backfill sample series. This range will be used to determine if the new analytical data is consistent with the analytical data from the backfill sample series. If the analytical results are consistent then we will proceed with the risk assessment as outlined in Section 3.

DRAFT

DRAFT OUTLINE FOR SAP

3.0 CLOSURE STRATEGY

As outlined in the Ohio EPA's December 8, 2003, correspondence, if the results are comparable to the existing backfill data Campbell with proceed with site closure. The risk assessment strategy that will be used to obtain unrestricted closure is outlined below:

3.1 Risk Assessment Sample Set

All soil samples within the limits of the closure unit will be included in the risk assessment. The risk assessment sample set will consist of the following:

- 1999 investigation samples
- 2001 investigation samples
- 2002 investigation samples
- Confirmation samples (floor and sidewall of excavation)
- Verification of remediation samples (treated soil stockpiles)
- Overburden soil stockpile samples (clean soil stockpile (CS) and intermediate soil stockpile (IS))
- Test Pit samples (vertical delineation below bottom of excavation)
- 2004 samples associated with the SAP

Only those samples that remain on site will be included in the risk assessment. The SAP will contain a table outlining all samples to be used in the risk assessment. Please refer to the "Sample Fate" table sent to you on October 28, 2003.

3.2 Risk Assessment Methodology

The maximum detected concentration or Upper Confidence Limit (UCL) for each chemical of concern will be divided by its corresponding Cancerous and Non-Cancerous GCN and the ratios will be summed to determine if the risks and hazard indices are acceptable. A sum of the Non-Cancerous ratios that is less than 1.0 and a sum of the Cancerous ratios that, when multiplied by 10^-5, is 1E^-5 or less, indicates that the environmental risk at the site is less than the Ohio EPA action level and the site will be closed with unrestricted use.

DRAFT OUTLINE FOR SAP

3.2.1 Preliminary Risk Assessment

Using only the maximum concentration for each COC the ratios will be summed. From this evaluation COCs will be selected for a statistical evaluation to determine the UCL, as outlined below.

3.2.2 Limited Statistical Evaluation

A statistical evaluation will be preformed for each COC where a UCL is substituted for the maximum concentration in the risk assessment. All samples in the risk assessment sample set will be included in the statistical evaluation. Samples that do not exhibit a concentration above the detection limit will be included in the statistical evaluation at ½ of the detection limit. Because the sample concentration data do not follow a normal or log-normal distribution the test for proportions nonparametric test of the median will be used to calculate the confidence interval and 90th percentile upper confidence limit. The 90th percentile upper confidence limit will be used as the exposure point concentration in the risk assessment.

3.2.3 Final Risk Assessment

The risk assessment will be reassessed by substituting the maximum concentration with the UCL for the chemicals of concern identified in Section 3.2.1.

Henry Co. "Campbell Soup 2004"

Campbell Soup Company

WORLD HEADQUARTERS
Camden, New Jersey 08103-1799

Osman M. Aly, Ph.D.
Consultant

Telephone: 856-968-4423
FAX # 856-968-2808/2809

January 6, 2004

Via Airborne Express

RECEIVED
JAN 07 2004
OHIO E.P.A.
N.W.D.O.

Ohio EPA, Northwest District Office
Division of Hazardous Waste Management
ATTN: Kara Reynolds
347 North Dunbridge Road
Bowling Green, Ohio 43402

RE: Former Holding Pit
RCRA Site Closure Certification Report
Campbell Soup Supply Company, Napoleon, Ohio
OHD 005 419 171

Dear Ms. Reynolds:

This is in response to your letter of December 8, 2003 concerning the available options proposed by Ohio EPA to choose from for determining the appropriate exposure and risk that the contaminated media at the site poses to human health and the environment.

After review of the three options, Campbell Soup Company decided to proceed with option (c), which requires taking several core samples in the existing backfilled area, using a SAP subject to approval by Ohio EPA to determine the validity of the present data as outlined in your letter. Through e-mail correspondence, conference calls and a site visit, the Ohio EPA and Campbell have come to a general agreement on the elements of the Sampling and Analysis Plan (SAP) as required by option (c). The primary elements of the SAP were outlined in our December 30, 2003 e-mail. Campbell will submit a draft SAP that incorporates these elements to the Ohio EPA for your review and approval.

If you have any questions or concerns, please do not hesitate to call me at 856 968-4423, or contact Mr. Michael Kovacich at 734 213-5024.

Sincerely,

CAMPBELL SOUP COMPANY

Osman M. Aly, Ph.D.
Consultant

OMA/lgm

Cc: M. Kovacich (GeoTrans, Inc.)
M. Terpinski
M. Maringer (Napoleon)
R. Shober

Campbell Soup **2005-**

12-773 SR 110, Napoleon OHD 005 419 171

Henry County MAIN PLANT DHWM

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

Campbell Soup
Henry County
CA

Dawn Pleiman - Fw: Campbell's waste codes

From: Geoff Sans <geoff_sans@campbellsoup.com>
To: Dawn Pleiman <Dawn.Pleiman@epa.state.oh.us>
Date: 5/24/2010 4:51 PM
Subject: Fw: Campbell's waste codes

Dawn,
As promised, I have reviewed the Hazardous Waste Manifests for the past three years on the materials that were removed from our site with the following results;

1. Waste Code D001 aerosol cans, paint cans, diethyl ether, gasoline, mineral spirits, diesel fuel, petroleum distillates, acetylene dissolved
2. Waste Code D001/D002 hydrogen peroxide peroxyacetic Acid
3. Waste Code D001/D005 Ink, methyl ethyl ketone
4. Waste Code D002 Acid - Chemtreat CT236, phosphoric acid, potassium hydroxide,sodium hydroxide, Nalco-Acti-Brom R 7342 Product (Alkaline Liquid Bromide Antimicrobial)
5. Waste Code D009 Mercury instruments
6. Waste Code D013/U279 Lindare, Carbaryl
7. Waste Code D013/D014 aerosols (Lindane,Methoxychlor)
8. Waste Code D022/U044/U080 chloroform, methylene chloride

You are correct in that most of the material that is shipped out is in fact video jet ink/solvent, mercury instruments, paint and aerosol cans which for the most part are empty. The other items tend to be things that are no longer used at the site, oil absorbent material used to clean up minor petroleum spills and chemicals used for pacification of metal equipment like our cookers.

As far as the underground tanks are concerned, to the best of our knowledge the information is correct with the understanding that most of it was provided by the Bureau of Underground Storage Tanks (an Ohio State Regulatory Agency).
Any questions, please ask,
Geoff

----- Forwarded by Geoff Sans/US/CAMPSOUP/CSC on 05/21/2010 08:46 AM -----

From: Geoff Sans/US/CAMPSOUP/CSC
To: "Dawn Pleiman" <Dawn.Pleiman@epa.state.oh.us>@CPB
Date: 05/14/2010 04:46 PM
Subject: Re: Campbell's waste codes

Dawn,
Just wanted to let you know that I did get your two emails and am working on our SPCC plan and a response to your questions. Please note current status below;

First, we are in the process of reviewing our Manifests from the last three years. We have sent out a few items under other Hazardous Waste categories. Once I have that information put together I can respond to your question in this email.

Secondly, because of the revisions of the regulations that are coming into play, we hired Orbital Engineering (since

purchased by SSOE) to review our site and current plan. Based on their recommendations, we are in the process of adding other equipment that contains 50 gallons or more of petroleum product, most of which are internal to our buildings. Once we complete this review we intend to hire a consultant (PE) to rewrite our entire plan.
If you have any questions, please let me know,
Thanks,
Geoff

"Dawn Pleiman" ---05/10/2010 01:35:26 PM---Hi Geoff, I have a few more questions for you.

From: "Dawn Pleiman" <Dawn.Pleiman@epa.state.oh.us>
To: Geoff Sans/US/CAMPSOUP/CSC@CSC
Date: 05/10/2010 01:35 PM
Subject: Campbell's waste codes

Hi Geoff,
I have a few more questions for you.
Campbell's Main Plant (OHD 005 419 171) only generates hazardous waste video ink and thermometers, correct? so EPA waste codes D001, F005 and D009
Does Campbell's use the waste codes for other waste (meaning is any other hazardous waste generated that I might have missed).

Campbell's does not ship "parts washer solvent" as hazardous anymore since Heritage recycles it. Is this correct?

Thanks for the clarifications,
Dawn

Dawn Pleiman
DHWM
Ohio EPA NWDO
347 N. Dunbridge Rd.
Bowling Green, OH 43402
419.373.3148
dawn.pleiman@epa.state.oh.us

Ohio Environmental Protection Agency
This communication and any response to it
may constitute a public record and thus may be
publicly available to anyone who requests it.

****
This e-mail and any files transmitted with it may contain
confidential information and is intended solely for use by
the individual to whom it is addressed. If you received
this e-mail in error, please notify the sender, do not
disclose its contents to others and delete it from your

Campbell Soup--Beverage Plant

12-995 SR 110, Napoleon
Henry County

OHD 987 046 703
DHWM

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

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___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Rd.
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

April 9, 2009

Mr. Geoff Sans
Campbell Soup Supply Co.
12-773 State Route 110
Napoleon, Ohio 43545

Re: Corrective Action Site Visit of August 11, 2008
OHD 987 046 703, V-8 Beverage Plant, 12-995 State Route 110
OHD 987 023 678, Chemical Residue Analytical Lab, P-152 County Road 12

Dear Mr. Sans:

On August 11, 2008, Ohio EPA met with Campbell Soup Supply Co. (CSS) to discuss RCRA Corrective Action and tour the facility to identify units that may be subject to corrective action. CSS was represented by Geoff Sans, Manager, Services & Utilities; Jim Koskan, Area Manager Services & Utilities, and Mike Maringer, consultant and former employee. Ohio EPA was represented by Dawn Pleiman and Michael Terpinski. The meeting commenced with a discussion of the other two Campbell Soup properties identified by Ohio EPA as being subject to RCRA corrective action, the V-8 Beverage Plant and the Chemical Residue Analytical Lab.

Discussions between both parties determined that although the Beverage Plant and Chemical Residue Analytical Lab were included in a 1994 letter which cited CSS for unpermitted storage and treatment of hazardous wastes in a (coal) waste pile prior to burning in an on-site boiler: the waste pile was located on the Main Plant's property. When soil beneath the waste pile was sampled in 1994 and found to have not negatively impacted the soil, the violation was abated by Ohio EPA.

In March of 2000, it was brought to Ohio EPA's attention that waste coating material used by CSS on steel cans as a rust inhibitor was stored on-site from 1980 to 1981. From roughly 1981 to 1993 the liquid phase of the waste in the drums was either burned directly in Campbell's boilers or poured onto a coal pile and then burned in the boilers. The semi-solid waste in the drums was placed in clay-lined pits and in 1983 the material was mixed with sand prior to excavation and disposal at a landfill. All three CSS Napoleon facilities were cited with an ORC 3734.02(E) violation for unpermitted treatment, storage and disposal (in a May 16, 2000, Ohio EPA correspondence).

Since all of the violations occurred on the Main Plant's property, the corrective action site visit only needed to focus on the Main Plant. Ohio EPA also concluded that the Beverage Plant and the Chemical Residue Lab should be removed from Ohio EPA's list of facilities subject to RCRA Corrective Action. Therefore, with this letter, Ohio EPA wishes to correct any errors in the Agency's records and U.S. EPA's RCRA Info database. In summary, the V-8 Beverage Plant, located at 12-995 State Route 110, and the Chemical Lab, located at P-152 County Road 12, in Napoleon Ohio were not treatment, storage or disposal facilities, and **are not subject to the RCRA Corrective Action requirements under Ohio law** as a result of the Ohio Revised Code 3734.02(E)(F) violations cited in Ohio EPA Notice Of Violation letters dated April 26, 1994 and May 16, 2000.

The Main Plant (OHD 005 419 171) remains subject to RCRA Corrective Action and is addressed in a separate correspondence.

If you have any questions on this correspondence, please do not hesitate to contact me at (419) 373-3148.

Sincerely,

Dawn Pleiman

Dawn Pleiman
Division of Hazardous Waste Management

/lb

pc: NWDO File: DHWM, Campbell Soup, V-8 Beverage Plant and Chemical Residue Analytical Lab, Henry County, Corrective Action
Cindy Lohrbach, DHWM, NWDO
Michael Terpinski, DHWM, NWDO

ec: Jeremy Carroll, Manager, RISS, DHWM, CO, Central File
Ed Lim, Manager, ERAS, DHWM
Dawn Pleiman, DHWM, NWDO
Don North, DHWM, NWDO

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 **FAX:** (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

Re: Campbell Soup Company
OHD 987046703
Beverage Plant
Henry County
CESQG/TSD
Return to Compliance

December 18, 2003

Mr. Michael Maringer
Manager, Services & Utilities
Campbell Soup Company
12-773 St. Rt. 110
Napoleon, Ohio 43545

Dear Mr. Maringer:

Thank you for your December 8, and December 12, 2003, responses to Ohio EPA's November 14, 2003, Notice of Violation letter. You submitted documentation including: a copy of the manifest for the video jet ink waste and two photos of the container and the label for this waste.

My review of this documentation reveals that Campbell Soup Company's Beverage Plant has adequately demonstrated abatement of the violation discovered during my November 10, 2003, inspection.

If you have any questions, please contact me at (419) 373-3074.

Sincerely,

Don North
District Representative
Division of Hazardous Waste Management

/lb

pc: Tammy McConnell, DHWM, CO
Colleen Weaver, DHWM, NWDO
Cindy Lohrbach, DHWM, NWDO
DHWM, NWDO File

ec: Eric Getz, DHWM, NWDO
John Pasquarette, DHWM, NWDO
Don North, DHWM, NWDO

NOTICE:
Ohio EPA's failure to list specific deficiencies or violations in this letter does not relieve your company from having to comply with all applicable regulations.

Printed on Recycled Paper

Campbell SOUP Company

NAPOLEON, OHIO 43545

COPY

RECEIVED
DEC 09 2003
OHIO E.P.A.
N.W.D.O.

Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402-9398

Don North – District Representative

Dear Mr. North,

December 8, 2003

To correct the measures as stated in your letter dated November 14, 2003, to Campbell Soup Supply Company (OHD 005419171), the following items have been completed.

The Video Ink Jet Waste (F005). A telephone call was made to Heritage Environmental Services to correct the determination of this waste from D001 to F005. On November 21, 2003, Heritage removed the two waste ink drums from the Main Plant and Beverage Plant (see Manifest Attached). To further clarify this determination, a F005 sticker was placed on the new accumulation drums.

Main Plant

Waste Thermometers (D009) The thermometers observed during the inspection were removed by Heritage Environmental Services (see attachment) on November 1, 2003. To provide better awareness on open lids, a sticker was placed on the accumulation drum stating "Keep Lid Closed". Also, personnel were instructed to call my extension when the drum is three quarters full to prevent raised lids.

Please contact me if you have any additional questions.

M. A. Maringer

Mike Maringer
Manager - Services and Utilities

RECEIVED HER- 048848

DEC 0 9 2003

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.) Form Approved: OMB No. 2050-0039. Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID Number: OHIO N.W.D.O. 0 H.D.0.0.5.4.1.9.1.7.1.N
2. Page 1 of 1
Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address: Main Plant
CAMPBELL SOUP COMPANY
STATE ROUTE 110, NAPOLEON, OH 43545

4. Generator's Phone ( ) 599-2794

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: HERITAGE TRANSPORT, LLC
6. U.S. EPA ID Number: N.D.0.5.8.4.8.4.1.1.4.

C. State Transporter's ID

D. Transporter's Phone: [illegible]

7. Transporter 2 Company Name
8. U.S. EPA ID Number: . . . . . .

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: HERITAGE ENVIRONMENTAL SERVICES LLC
7901 WEST MORRIS STREET
INDIANAPOLIS, IN 46231
10. U.S. EPA ID Number: N.D.0.9.3.2.1.9.0.1.2.

G. State Facility's ID

H. Facility's Phone: [illegible]

11. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. RQ, WASTE FLAMMABLE LIQUIDS, N.O.S., 3, UN1993, PG II, (INK, METHYL ETHYL KETONE) (F005,D001) ERG#128	002	DM	0.0.6.0.0	P	F005
b.	. .	.	. . . .		
c.	. .	.	. . . .		
d.	. .	.	. . . .		

J. Additional Descriptions for Materials Listed Above: A. 34924-11 D001 F005 (VIDEO JET INK) 0054 2x55 DM

K. Handling Codes for Wastes Listed Above: 11a. T50

15. Special Handling Instructions and Additional Information

24 HOUR EMERGENCY PHONE #:
419-593-0010

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed /Typed Name: Michael Mariacer
Signature: [signature]
Date: Month 1.1 Day 2.1 Year 0.3

17. Transporter 1 - Acknowledgement of Receipt of Materials

Printed /Typed Name: Andrew P. Tucker
Signature: [signature]
Date: Month 1.1 Day 2.1 Year 0.3

18. Transporter 2 - Acknowledgement of Receipt of Materials

Printed /Typed Name
Signature
Date: Month . Day . Year .

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest (except as noted in Item 19).

Printed /Typed Name
Signature
Date: Month . Day . Year .

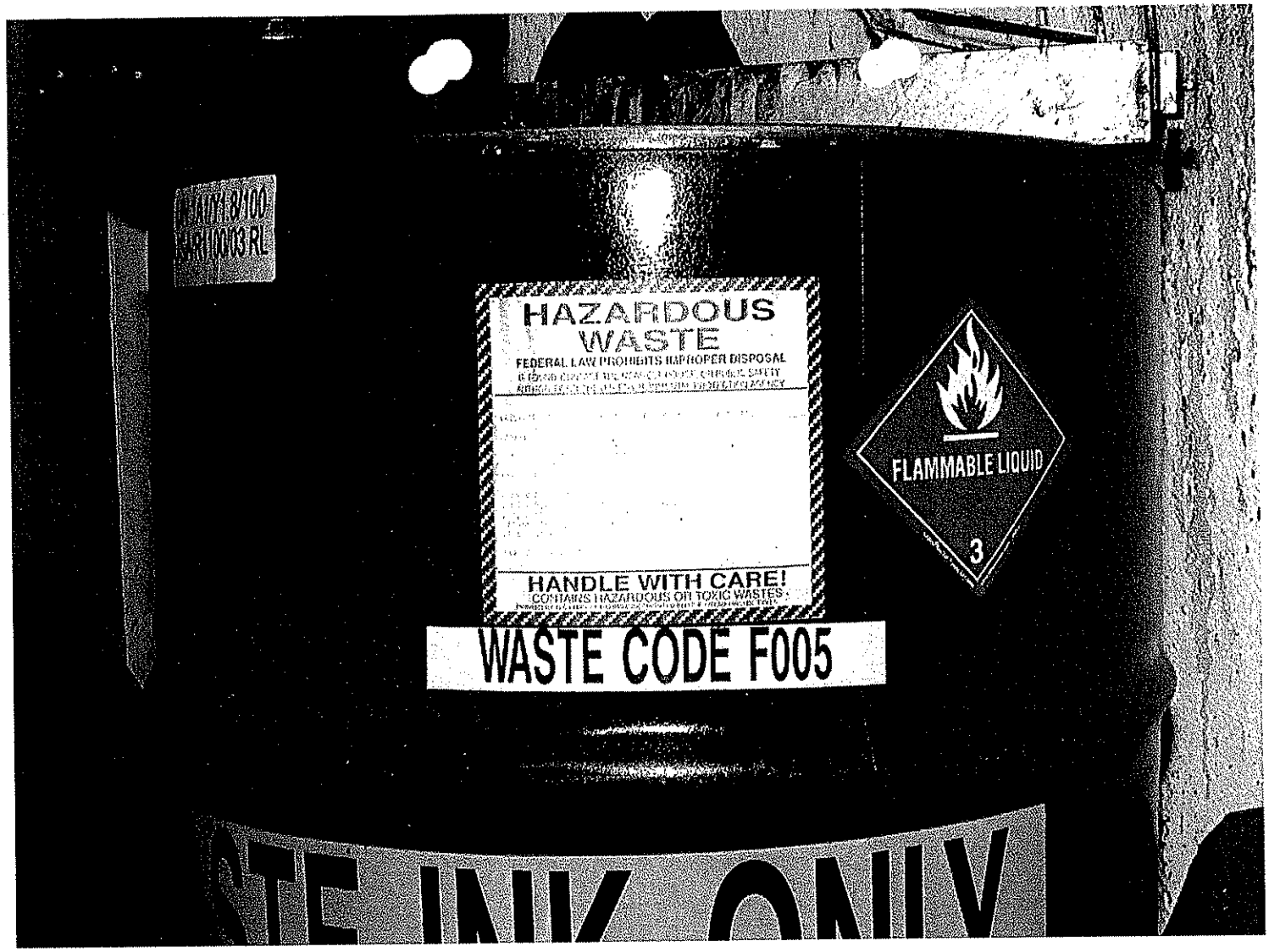
GENERATOR

TRANSPORTER

FACILITY

In case of a spill, call the National Response center at 800 / 424-8802 or 202 / 426-2675

EPA Form 8700-22 (Rev. 10-94) Previous editions are obsolete. COPY 3 - GENERATOR


HAZARDOUS
WASTE
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
HANDLE WITH CARE!
CONTAINS HAZARDOUS OR TOXIC WASTES
FLAMMABLE LIQUID
3
WASTE CODE F005

HER- 048811

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.) Form Approved: OMB No. 2050-0039. Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID Number: OHD005419171 | Manifest Document No.: 1181 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
CAMPBELL SOUP COMPANY
STATE ROUTE 110, NAPOLEON, OH 43545

A. State Manifest Document Number

4. Generator's Phone (419) 599-6794

5. Transporter 1 Company Name: HERITAGE TRANSPORT, LLC | 6. U.S. EPA ID Number: INDO58464114

7. Transporter 2 Company Name | 8. U.S. EPA ID Number

9. Designated Facility Name and Site Address
HERITAGE ENVIRONMENTAL SERVICES LLC
7901 WEST MORRIS STREET
INDIANAPOLIS, IN 46231

10. U.S. EPA ID Number: IND093219012

11. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol.
a. RQ, WASTE MERCURY, 8, UN2809, PGIII ERG#172	002	DM	00450	P
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY PHONE #: 419-592-1010

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed /Typed Name: MICHAEL N. MARINGER | Signature: Michael N. Maringer | Date: Month 11 Day 01 Year 03

TRANSPORTER

17. Transporter 1 - Acknowledgement of Receipt of Materials
Printed /Typed Name: Nathan Giles | Signature: Nathan Giles | Date: Month 11 Day 01 Year 03

18. Transporter 2 - Acknowledgement of Receipt of Materials
Printed /Typed Name | Signature | Date: Month Day Year

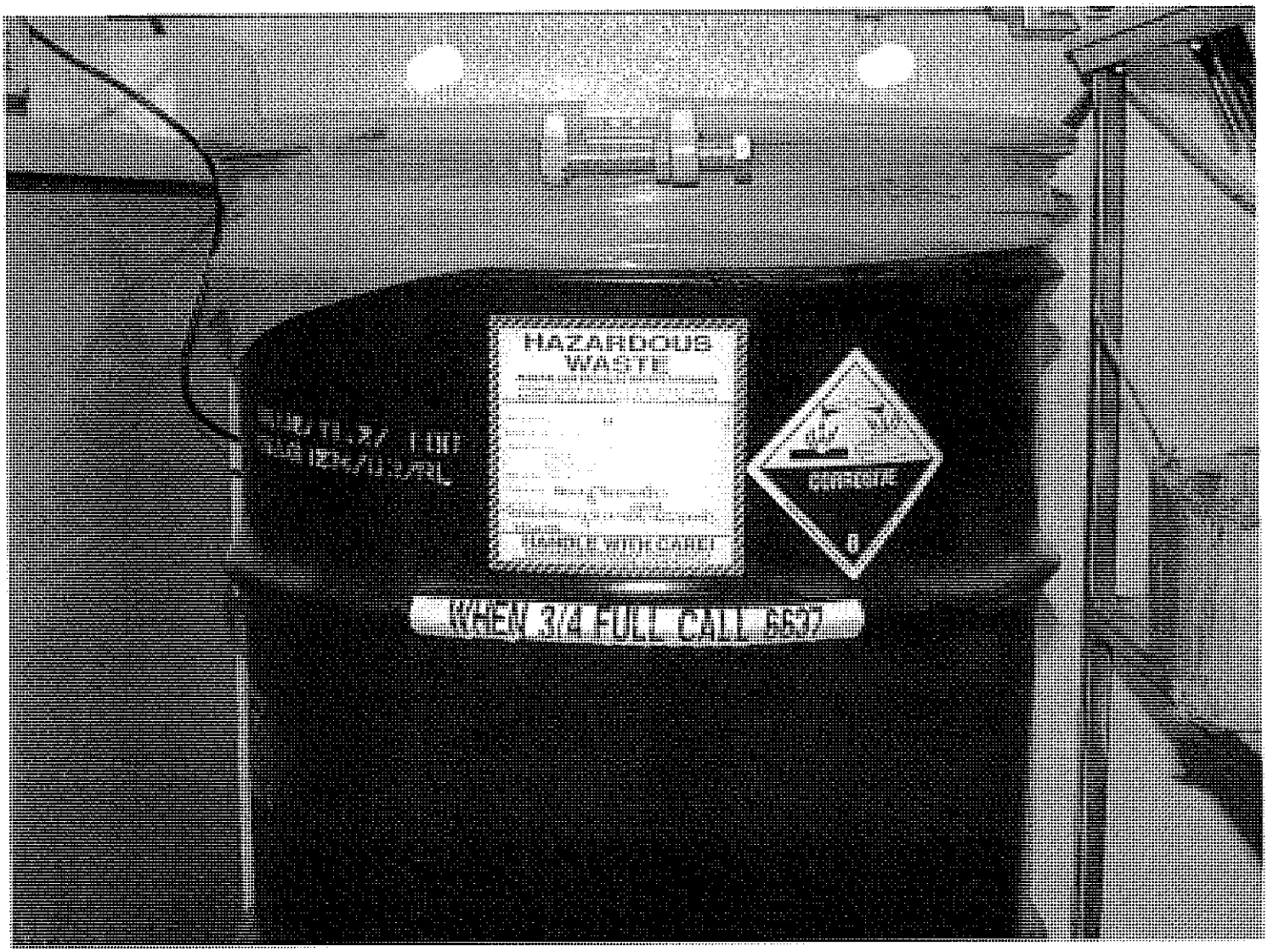
FACILITY

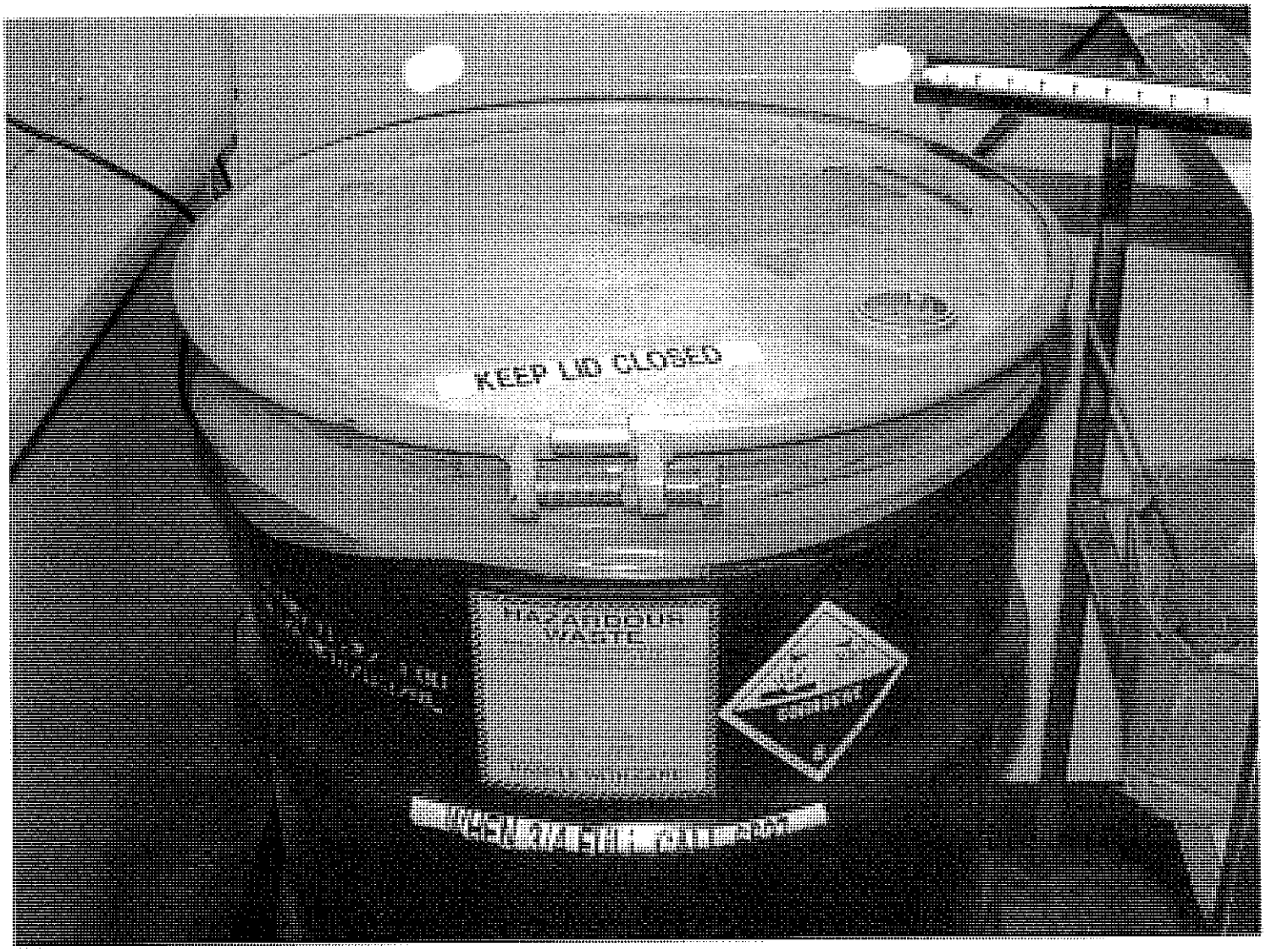
19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest (except as noted in Item 19).
Printed /Typed Name | Signature | Date: Month Day Year

In case of a spill, call the National Response center at 800 / 424-8802 or 202 / 426-2675

EPA Form 8700-22 (Rev. 10-94) Previous editions are obsolete. COPY 2 - GENERATOR


HAZARDOUS
WASTE
CORROSIVE
WHEN 3/4 FULL CALL 6657


KEEP LID CLOSED
HAZARDOUS
WASTE

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 **FAX:** (419) 352-8468

Bob Taft, Governor
Christopher Jones, Director

Re: Campbell Soup Company
OHD 987046703
Beverage Plant
Henry County
CESQG/TSD
Notice of Violation

November 14, 2003

Mr. Michael Maringer
Manager, Services & Utilities
Campbell Soup Company
12-773 St. Rt. 110
Napoleon, Ohio 43545

Dear Mr. Maringer:

Thank you for accompanying me during Ohio EPA's November 10, 2003, inspection of Campbell Soup Company's (CSC-BP) Beverage Plant (OHD 987046703) at 12-995 St. Rt. 110 in Napoleon, Ohio. We were also accompanied by Kara Reynolds and Dawn Pleiman of Ohio EPA and Mr. Jim Koskan of CSC. I inspected CSC-BP to determine its compliance with Ohio's hazardous waste laws as found in Chapter 3734. of the Ohio Revised Code (ORC) and Chapter 3745. of the Ohio Administrative Code (OAC). During the inspection we also discussed ways to prevent pollution by reducing waste. This letter will explain the violation I found and what you need to do to correct the violation.

CSC-BP produces heat processed food products including several types of vegetable juices. The general process involves the following steps: (for Splash) concentrate hydrated → filled → coded → boxed; (for V8) vegetables pressed → liquid mixed → filled → coded → boxed. Very little hazardous waste is generated since most of the materials used in the plant must be food grade materials. Kettles are cleaned with food grade cleaners and the wastewaters go to the on-site wastewater treatment plant.

The following hazardous wastes are generated in CSC-BP:

Beverage Plant **OHD 987046703** / CESQG-TSD

1. Video Ink Jet Waste (F005) This waste is generated from cleaning the video ink jet machines. When the ink runs out the machine is programed for cleaning mode. The cleaner is 68% MEK (Methyl Ethyl Ketone). Approximately two 55-gallons drums of this waste is generated each year.

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2. Waste Paint (D001) This waste is generated from cleaning painting equipment and left over paint. The plant paints walls, stripes and rails, etc.

3. Used Oil (Non-hazardous) Used oil is accumulated in 55-gallon drums and stored in a curbed and fenced area outside the main plant. It is recycled by Midwest Environmental.

I found the following violation of Ohio's hazardous waste laws. In order to correct this violation you must do the following and send me the required information **within 30 days** of your receipt of this letter:

1. **Waste Evaluation**
OAC Rule 3745-52-11

A person who generates a waste must determine if the waste is listed as a hazardous waste in rules 3745-51-30 to 3745-51-35. CSC-BP had failed to determine that its video ink jet waste was listed as an F005 hazardous waste. CSC-BP had characterized the waste as ignitable (D001) waste only. The Make Up (cleaning) solvent contains 68% MEK and, therefore, should have been designated as an F005 waste.

In order to correct this violation, CSC-BP must record the hazardous waste number F005 on all future manifests for the video ink jet waste from the Beverage Plant and submit to me either a copy of the next completed manifest, or a revised copy of a manifest, as an example, if the waste will not be shipped off-site within 30 days. CSC-BP must also submit to me a photograph documenting that the hazardous waste label is marked with the hazardous waste number F005.

We discussed annual training that you participate in and you indicated an interest in hazardous waste management training provided by the University of Findlay. Here is the web site for the program: http://seem.findlay.edu/ESH/default.asp.

For your information, I have enclosed a copy of the following fact sheets and lists: The Regulation of Used Oil: An Overview for Ohio Businesses - Used Oil Generators, Commercial Used Oil Marketers and Recyclers, Fluorescent Lamps Fact Sheet, Computer, Fluorescent Lamp and Ballast Recyclers and Management of Electronic Waste From Business.

As we discussed during the inspection, you may be able to reduce the waste your company generates. If you find ways to recycle, reduce or altogether eliminate the amount of waste that your company generates you may be able to reduce your treatment and disposal costs and you may possibly reduce your regulatory requirements.

If you would like more information about pollution prevention, or if you would like to be considered for an in depth, on site pollution prevention assessment, please contact me at (419) 373-3074 or Ohio EPA's Office of Pollution Prevention (OPP) at (614) 644-3469.

The Division of Hazardous Waste Management has created an electronic news service to provide you with quick and timely updates on events and news related to hazardous waste activities in Ohio. If you haven't already, we encourage you to sign-up for this free service. You can find more information at the following Web link http://www.epa.state.oh.us/dhwm/listserv.html. Please feel free to share this information with your colleagues.

Enclosed you will find a copy of the checklists that I completed during the inspection of the Beverage Plant. Should you have any questions, please feel free to contact me at (419) 373-3074. You can find copies of the rules and other information on the division's web page at http://www.epa.state.oh.us/dhwm. Ohio EPA also has helpful information about pollution prevention at the following web address: http://www.epa.state.oh.us/opp.

Sincerely,

Don North

Don North
District Representative
Division of Hazardous Waste Management

/csl

Enclosures

pc: Tammy McConnell, DHWM, CO (w/enc.)
Colleen Weaver, DHWM, NWDO
Cindy Lohrbach, DHWM, NWDO
DHWM, NWDO File (w/enc.)

ec: Eric Getz, DHWM, NWDO
John Pasquarette, DHWM, NWDO
Don North, DHWM, NWDO

NOTICE:
Ohio EPA's failure to list specific deficiencies or violations in this letter does not relieve your company from having to comply with all applicable regulations.

USED OIL INSPECTION CHECKLIST

Company: Beverage Plant Campbell Soup Company EPA I.D.: OHD 987046703

Street: 12-995 St. Rt. 110 City: Napoleon

County: Henry State: Ohio Zip: 43545

Mailing Address: 12-773 St. Rt. 110
(IF DIFFERENT FROM ABOVE)

Telephone: (419) 592-1010 Fax: _____

Owner/ Operator: _____
(IF DIFFERENT FROM ABOVE)

Street: _____

City: _____ State: _____ Zip: _____

Inspection Date(s): 11-10-03 Time(s): 9-1:30

Inspection announced? Yes ✓ No ____ If so, how much advance notice given? 1 Week

	Name	Affiliation	Telephone
Inspectors:	Don North	OEPA, DHWM, NWDO	(419) 373-3074
	Kara Reynolds	OEPA, DHWM, NWDO	(419) 373-3065
Facility Rep(s):	Dawn Pleiman	OEPA, DHWM, NWDO	(419) 373-3148
	Michael Maringer	Camp. Mgr. Sew. + Util.	(419) 592-1010 x 6637
	Jim Koskan	Camp. Area Mgr. Pet. Sew.	(419) 592-1010

USED OIL MANAGEMENT ACTIVITY

✓ Generator/Collection Center/Aggregation	____ Marketer
____ Transporter/Transfer Facility	____ Off-Spec Burner
____ Processor/Re-Refiner	____ Other (specify)
____ No Generation	

PROHIBITIONS

1. Is used oil being managed in a surface impoundment or waste pile? If so: — Yes ___ No ✓ N/A ___ RMK#___

   Is the surface impoundment or waste pile being regulated under OAC 3745-54 to 3745-57 or 3745-65 to 3745-69? [3745-279-12(A)] — Yes ___ No ☐ N/A ✓ RMK#___

2. Is used oil being used as a dust suppressant? [3745-279-12(B)] — Yes ☐ No ✓ N/A ___ RMK#___

3. Is off-specification used oil fuel burned for energy recovery only in devices specified in 3745-279-12(C)? — Yes ___ No ☐ N/A ✓ RMK# 1.

1. Campbell's no longer burns

USED OIL GENERATOR STANDARDS

4. Does the generator mix hazardous waste with used oil only as provided in 3745-279-10(B)? [2745-279-21(A)] — Yes ___ No ☐ N/A ✓ RMK#___

5. Does the generator of a used oil containing greater than 1,000 ppm total halogens manage the used oil as a hazardous waste unless the presumption is rebutted successfully? [3745-279-21(B)] — Yes ___ No ☐ N/A ✓ RMK#___

6. Does the generator only store used oil in tanks, containers, or units subject to OAC 3745-54 to 3745-57 or 3745-65 to 3745-69? [3745-279-22(A)] — Yes ✓ No ☐ N/A ___ RMK# 2.

2. Stored in 55-gal drums

7. Are containers and aboveground tanks used to store used oil in good condition with no visible leaks? [3745-279-22(B)] — Yes ✓ No ☐ N/A ___ RMK#___

8. Are containers, above ground tanks, and fill pipes used for underground tanks clearly labeled or marked "Used Oil?" [3745-279-22(C)] — Yes ✓ No ☐ N/A ___ RMK#___

9. Has the generator, upon detection of a release of used oil, done the following: [3745-279-22(D)]

   a. Stopped the release? — Yes ___ No ☐ N/A ✓ RMK#___

   b. Contained the release? — Yes ___ No ☐ N/A ___ RMK#___

   c. Cleaned up and properly managed the used oil and other materials? — Yes ___ No ☐ N/A ___ RMK#___

   d. Repaired or replaced the containers or tanks prior to returning them to service, if necessary? — Yes ___ No ☐ N/A ___ RMK#___

Used oil stored in curbed fenced area outside Main Plant.

10. Does the generator burn used oil in used fired space heaters? [3745-279-23] If so: Yes ___ No ✓ N/A ___ RMK#___

a. Does the heater burn only used oil that owner/operator generates or used oil received from household do-it-yourself (DIY) used oil generators? Yes ___ No ☐ N/A ✓ RMK#___

b. Is the heater designed to have a maximum capacity of not more that 0.5 million BTU per hour? Yes ___ No ☐ N/A ___ RMK#___

c. Are the combustion gases from heater vented to the ambient air? Yes ___ No ☐ N/A ___ RMK#___

11. Does the generator have the used oil hauled only by transporters that have obtained an EPA ID#, unless the generator qualifies for an exemption pursuant to 3745-279-24 (self transportation or tolling agreements)? [3745-279-24] Yes ✓ No ☐ N/A ___ RMK# 4.

4. Mid west Environmental

USED OIL COLLECTION CENTERS AND AGGREGATION POINTS

12. Is the DIY used oil collection center in compliance with the generator standards in 3745-279-20 to 3745-279-24? [3745-279-30] Yes ___ No ☐ N/A ✓ RMK#___

13. Is the non-DIY used oil collection center registered with Ohio EPA? [3745-279-31] Yes ___ No ☐ N/A ___ RMK#___

14. Is the used oil aggregation point in compliance with the generator standards in 3745-279-20 to 3745-279-24? [3745-279-32] Yes ___ No ☐ N/A ___ RMK#___

WASTE EVALUATION

15. Have all wastes generated at the facility been evaluated? [3745-52-11] Yes ___ No ☑ N/A ___ RMK# 3.

REMARKS

3. See other checklist (CESQG)

RCRA HAZARDOUS WASTE GENERATOR INSPECTION CHECKLIST

Company: Campbell Soup Company Beverage Plant EPA ID#: OHD 987046703

Street: 12-995 St. Rt. 110 City: Napoleon

County: Henry State: Ohio Zip: 43545

Mailing Address: 12-773 St. Rt. 110
(If different from above)

Telephone: (419) 592-1010 Fax #: _____

Owner/ Operator: _____
(If different from above)

Street: _____

City: _____ State: Ohio Zip: _____

Inspection Date(s): 11-10-03 Time(s): 9-1:30

Inspection Announced? ✓ Yes ____NO If so, how much advance notice given? 1 week

	Name	Affiliation	Telephone
Inspectors:	Don North	OEPA, DHWM, NWDO	(419) 373-3074
	Kara Reynolds	OEPA, DHWM, NWDO	(419) 373-3065
Facility Representative:	Dawn Pfeiman	OEPA, DHWM, NWDO	(419) 373-3148
	Michael Maringer	Camp. Mgr. Sew + Util	(419) 592-1010 X 6637
	Jim Kaskan	Camp. Area Mgr. Ref Sew.	(419) 592-1010

✓	Generator Classification	✓	Waste Management Activity
✓	Conditionally Exempt SQG (CESQG)	✓	Containers
____	Small Quantity Generator (SQG)	____	Tank(s)
____	Large Quantity Generator (LQG)	____	Other (specify)
____	No Generation		

CESQG:< 100 Kg. (approximately 25-30 gallons) of waste in a calendar month

SQG: Between 100 and 1,000 Kg. (about 25 to under 300 gallons) of waste in a calendar month

LQG: >1,000 Kg. (~300 gallons) of waste in a calendar month or > 1 Kg. of acutely hazardous waste in a calendar month

NOTE: *To convert from gallons to pounds: Amount in gallons x Specific Gravity x 8.345 = Amounts in pounds*

POLLUTION PREVENTION

Note to the Inspector: This checklist has been developed to help the division in gathering general information about the pollution prevention (P2) practices that the company may have initiated or attempted to initiate. The checklist is also used to:

- Facilitate P2 discussions;
- Identify barriers to P2;
- Define the P2 universe;
- Identify the need for future P2 initiatives;
- Identify partnership opportunities; and
- Link companies with better P2 resources.

As a prelude to completing this checklist the inspector should use the following list of questions as a way to initiate a dialogue concerning P2:

1. Have you tried to reduce the volume of waste (hazardous and nonhazardous) that you generate?

2. What is the largest waste stream that you generate?

3. How important would it be to you to eliminate that waste stream?

4. Does your company understand the reduced regulatory burden and cost saving benefits that eliminating or reducing a waste stream can have?

5. Could you use better housekeeping practices to reduce the amount of waste that you generate?

If the company responds with one of the answers below, the appropriate box should be checked. If the company's response does not correspond to one of the options below, please record the answer in the space provided in the remarks section.

1. Has the company undertaken any P2 activities to reduce the amount of waste generated? ☐Yes ☑No ☐N/A ___RMK#

   a. If so, what has the company done to minimize waste generation?

   - ☐ A change in the process resulting in less waste.
   - ☐ A change in the product resulting in less waste.
   - ☐ Use of fewer and less toxic hazardous raw materials.
   - ☐ Better operations/improved housekeeping.
   - ☐ On-site recycling/reuse of hazardous materials.
   - ☐ Sending waste off-site for recycling/reuse.
   - ☐ Other activities (specify):

Campbell Soup Company used to be a large quantity generator when it manufactured its own cans. However, this business has been sold and is no longer done by Campbell's. Company is now acting as a conditionally exempt small quantity generator.

b. ***If so,*** what wastes have been addressed?

- ❑ Solvents
- ❑ Paint related wastes
- ❑ Industrial process wastes (sludges, slags, contaminated wastes waters, etc.)
- ❑ Contaminated oils/hydraulic fluids
- ❑ Off-spec chemicals
- ❑ Shop rags
- ❑ Other (specify):
- ❑ Waste water
- ❑ Solid waste (paper, plastic, metal, wood, blasting material)
- ❑ Air emissions
- ❑ Energy use
- ❑ Fluorescent light bulbs
- ❑ Used batteries

c. If they haven't minimized waste are there barriers that are preventing them from doing it?

- ❑ Lack of information about practical alternatives.
- ❑ Lack of capital to make process changes.
- ❑ Lack of internal management support.
- ❑ The company does not generate enough waste to consider P2.
- ❑ Other reason given (specify):

2. Does the company plan to do P2 activities in the future? ☒Yes ❑No ❑N/A ___RMK#
Have a recycling committee

3. Would the company be interested in receiving additional information from Ohio EPA about P2? ❑Yes ❑No ❑N/A ___RMK#
Maybe

4. Did you give the company information about P2 during the inspection? ☒Yes ❑No ❑N/A ___RMK#
Gel letter

5. Would the company like a P2 assessment? ❑Yes ❑No ❑N/A ___RMK#

A. If yes, provide information that makes the company a good candidate for an assessment (i.e., known specific P2 opportunities exist, the company is willing to cooperate and commit resources to the assessment, the company fully understands DHWM's P2 assessment process, etc.)
Maybe will call back

B. If no, list the reasons the facility representative gave for not wanting an assessment.
Can't recycle/reuse ink since different colors get mixed. Some inks used because change color w/ heat.

If the company would like a P2 assessment done at their facility, the inspector must give the company representative a copy of the <u>Pollution Prevention for Hazardous Waste Generators</u> document and discuss it with them.

Campbells has expanded its by-products process so that non-saleable soup and beverages (canned) is shredded, dewatered & made into hog food. This keeps thousands of cans of food out of the landfill and provides useful farm food.

REMARKS

Michael Manager does an audit of the plant every 6 months.

Can plant sold to Silgan: Phil Cesen, Plt. Mgr. Carolyn Oberhouse - Envi Coord.

Heritage picks up waste Videojet ink (F005) They also supply + pick up Crystal Klean solvent in parts washers throughout plant. This is a continual reuse program.

Process:

splash: concentrate → hydrate → fill → code → box

V8: vegetables pressed → liquid mixed → fill → code → box (pumice → dog food).

Kettles are cleaned w/ food grade cleaners.

Waste water to on-site WWTP.

(Soaps: nitric, phosphonic ~~acid~~, caustic, bleach)

Fluorescent bulbs collected, boxed + sent to Environmental Recycling.

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR REQUIREMENTS

WASTE EVALUATION

(1) Have all wastes generated at the facility been evaluated? [3745-52-11] Yes ___ No ☑ N/A ___ RMK# 1.

GENERATOR CLASSIFICATION

2. Does the generator produce ≤100 kg. of hazardous waste per month? [conditionally exempt small quantity generator ("CESQG")] Yes ✓ No ___ N/A ___ RMK# 2.

NOTE: *If quantities of hazardous waste accumulated on-site at any one time exceed 1,000 Kg. - or the generator produces between 100 and 1,000 Kg of hazardous waste per month, it is operating as a Small Quantity Generator ("SQG").* ***If so,*** *complete the Small Quantity Generator Requirements checklist.*

NOTE: *To convert from gallons to pounds:*

Amount in gallons x Specific Gravity x 8.345 = Amount in pounds

OFF-SITE SHIPMENT OF HAZARDOUS WASTE

3. Does the CESQG ensure delivery of hazardous waste(s) to an off-site permitted TSD? [3745-51-05(G)(3)] Yes ___ No ☐ N/A ___ RMK# ___

REMARKS

1. Campbells generates a hazardous waste cleaning solvent from its video jet printing process. At the time of the inspection, this was designated D001. The cleaning solvent – called Make Up – is 68% MEK. Therefore, the waste must be designated F005 and all records must be revised. It has always been handled as hazardous waste.

2. Less than 2 drums/year of ink waste (F005) and occasionally a small amount of paint waste (D001) from painting walls, stripes + rails.

Campbell's Soup

RECEIVED
JUN 19 2000
OHIO E.P.A.
N.W.D.O.

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
122 South Front St.
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
Lazarus Government Center
P. O. Box 1049
Columbus, OH 43216-1049

HAZARDOUS WASTE ENFORCEMENT COMMITTEE
CASE ASSIGNMENT

DATE: 6/15/00

Company Name: Campbell's Soup Company

U.S. EPA ID#: OHD987046703, OHD987023698
OHD005419171

Location: Napoleon

County: Henry

District: NWDO

Date Received Central Office: 6/15/00

Assigned To:

Attorney: Anderson Date Rec'd: _____

CAS Staff: Sarvis / Smith Date Rec'd: _____

Inspector: Mike Terpinski

Allen Rec'd: _____
Sarvis Rec'd: _____
Neumann Rec'd: _____

HWEC Date: July 7, 2000

Date of Inspection: _____

Recommendation: _____

Date Final Action Due: _____

Priority: SNC SV

Campbell's Soup

Campbell Soup Company

NAPOLEON, OHIO 43545

May 22, 2000

RECEIVED

MAY 23 2000

OHIO E.P.A.
N.W.D.O.

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
c/o Mr. Michael R. Terpinski, Environmental Specialist
347 N. Dunbridge Road
Bowling Green, Ohio 43402

Re: Henry County, Campbell Soup Company, Hazardous Waste Notice of Violation, OHD 987046703, OHD 987023678, and OHD 005419171.

Dear Mr. Michael R. Terpinski:

This is in response to the notice of violation letter dated May 16, 2000. The following is our response and further explanation of the events that took place involving the temporary holding pit area.

Spent solvent from the former can manufacturing operations at the Napoleon Plant was stored in 55-gallon drums and eventually used as a boiler fuel supplement (Boiler and Industrial Furnace 'BIF' Small Quantity Burner Exemption). Over time solids accumulated in the drums made it difficult to handle. To alleviate the solids, two earth dikes were constructed using a natural clay liner and compacted. The overall dimensions totaled approximately 20 feet wide by 35 feet long, with a depth of 2 ½ feet.

This practice was discontinued and the partially filled dikes were decommissioned in 1983. A local contractor using sand and natural soil excavated the dikes and hauled the material to the Evergreen Landfill for disposal. The material was analyzed by Evergreen at the landfill for disposal.

The earthen dikes were a one-time construction to remove semi-liquid solids from the drums. The practice was discontinued in 1983 with the excavation of the dikes.

We became aware of this practice, as we indicated in our March 23rd, 2000 meeting with you, and we immediately conducted an assessment of the area that resulted in the report we submitted to you.

Campbell Soup plans to conduct a complete investigation to delineate the contamination in the former holding pit area. A work plan will be submitted to your office for review and approval before implementation. We, also, shall submit a closure plan for hazardous waste storage and disposal area, to the Ohio EPA as is required by the applicable regulations.

We will call your office to arrange for a meeting to discuss the work plan and the various closure strategies.

Sincerely,

M. N. Maringer

Michael N. Maringer
Manager, Services & Utilities
Campbell Soup Supply Co.
P.O. Box 311
Napoleon, Ohio 43545
Ph. 419.592.1010 - Extension 6343

cc: Dr. O. Aly, Director of Environmental Affairs
Mr. R. Furbee, Vice President of Central Region

Re: Henry County
Campbell's Soup Company
OHD 987046703, OHD 987023678,
and OHD 005419171
Hazardous Waste
Notice of Violation

May 16, 2000

Mr. Michael Maringer
Manager, Service and Utilities
Campbell's Soup Company
East Maumee Avenue
Napoleon, Ohio 43545

Dear Mr. Maringer:

On March 23, 2000, a meeting between Campbell's and the Ohio Environmental Protection Agency (Ohio EPA) was held at Ohio EPA's Northwest District Office (NWDO). Campbell's was represented by Dr. Osman Aly and yourself. Ohio EPA was represented by Lorma Wendt (DHWM) and myself.

The following information was revealed during the March 23, 2000 meeting:

While responding to an Ohio EPA request for information relating to the Imthurn drum site investigation, Campbell's conducted numerous employee interviews. These interviews led to the discovery of another predicament from Campbell's past.

Campbell's is a manufacturer of soups, sauces, pork and beans, Splash fruit and vegetable juice, and V-8 vegetable juice. Cans were manufactured on-site until July 1998. Coating machines applied a rust inhibitor, similar to an enamel paint, to the 2-piece steel cans to increase durability. The coating machines needed periodic cleaning (performed with solvents classified as both listed and characteristically-hazardous wastes), thus generating hazardous waste.

The coating material waste consisted of two phases; a liquid phase and a sludge-like phase. Approximately 2000 of these drums from the canning plant were stored on-site behind the container plant on a concrete pad. Dr. Aly stated that during the energy crisis of the late 1970s, Mr. Ellis Imthurn approached Campbell's and asked if he could have the drums to use the waste to fuel the boilers in the abandoned school in which he resided. Dr. Aly stated that this was a one-time agreement that concluded in 1979. According to both Dr. Aly and yourself, the drums were simply stored on-site at the Napoleon plant from 1980 to 1981. According to Campbell's, the liquid phase was either burned directly in Campbell's boilers or placed on a coal pile, then burned in the boilers from 1981 to January 1993.

The semi-solid phase of this waste was not amenable to burning. Therefore, too many drums of the combined waste were being generated (you stated that approximately 22 to 100 gallons of the liquid phase waste was poured on the coal pile per month). The liquid phase was siphoned off and burned in the boilers. The semi-solid phase was dumped into two on-site holding pits from 1981 to 1983. The pits were reportedly lined with natural clay that was obtained on-site and compacted prior to placement of any sludges. You stated that the pits totaled approximately 20 feet by 40 feet and were 2½ to 3 feet deep. There was roughly 2 feet of waste in each pit. In 1983, the material was excavated and disposed of at Evergreen Landfill in Northwood, Ohio. The sludge was mixed with sand prior to off-site disposal.

The coating material waste was classified as a hazardous waste because of its ignitability. However, soil sampling data from the former pit area shows concentrations of compounds (xylene, acetone, methyl isobutyl ketone, ethyl benzene, and methyl ethyl ketone) typically found in F-listed hazardous wastes. Material Safety Data Sheets (MSDSs) for the coating materials and solvents used at the Napoleon plant in the early 1980s provided by Campbell's on April 21, 2000, confirms the presence of these materials. Therefore, the materials disposed of in the holding pit were listed hazardous wastes as well.

On December 2 and 3, 1999, HSI GeoTrans conducted sampling at the former holding pit area. The area was identified based on interviews with Campbell's employees. The results of the sampling were presented in a report titled Limited Subsurface Soil Investigation: Former Holding Pit Area received March 23, 2000. The report shows residual volatile organic chemical (VOC) contamination at depths as great as 10 feet below ground surface as a result of Campbell's former waste management techniques.

Because Campbell's has performed unpermitted treatment (evaporation of materials dumped in the holding pits), storage (from 1980 to 1981), and disposal (from 1981-1983) of hazardous waste, they are in violation of the following hazardous waste law:

1. Chapter 3734.02 (E) of the Ohio Revised Code states in part that: "[N]o person shall establish or operate a hazardous waste facility, or use a solid waste facility for the storage, treatment, or disposal of any hazardous waste, without a hazardous waste facility installation and operation permit from the hazardous waste facility board..."

   Campbell's storage of hazardous waste on-site from 1980 to 1981 constitutes unpermitted storage of hazardous waste. Campbell's is a Large Quantity Generator (LQG) of hazardous waste, and may only store waste on-site for ninety (90) days.

   When the semi-solid hazardous wastes were dumped into the holding pits on Campbell's property, they dried and were mixed with sand prior to off-site disposal at Evergreen Landfill in Northwood, Ohio. This evaporation constitutes unpermitted treatment of hazardous waste. The mixing of this material with sand may also constitute unpermitted treatment if the sand were introduced before the waste hardened.

The hazardous wastes dumped into on-site holding pits at Campbell's from 1981 to 1983 also constitutes improper disposal of hazardous waste. Campbell's does not have a RCRA Part B permit allowing for the treatment, storage, or disposal of hazardous waste.

Please respond, in writing, to this Notice of Violation (NOV) within ten (10) days. Your response must include all actions and timetables necessary to demonstrate compliance. *In addition, a copy of the closure plan for the hazardous waste storage and disposal areas must be submitted to Ohio EPA, NWDO within ninety (90) days of receipt of this letter.* Please call me to arrange a meeting to discuss the document entitled Limited Subsurface Soil Investigation: Former Holding Pit Area. The meeting will also be helpful in discussing various closure strategies available to Campbell's.

Failure to list specific deficiencies in this letter does not relieve you from the responsibility of complying with all applicable regulations.

If you have any questions, feel free to contact me at 419-373-3070.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/sw

pc: Frances Kovac, Legal, CO
Lorma Wendt, DHWM, NWDO
Cindy Lohrbach, DHWM, NWDO
DHWM, NWDO File
ec: Colleen Weaver, DHWM, NWDO

Campbell's Soup

Campbell SOUP Company

NAPOLEON, OHIO 43545

RECEIVED
MAY 27

May 26, 1999

Mr. Mike Terpinski
Northwest District Office Ohio E.P.A.
347 N. Dunbridge Road
Bowling Green, OH 43402

SUBJECT: Campbell Name Change

Dear Mr. Terpinski:

Campbell Soup Company is implementing a new business structure that will be comprised of three companies: *Campbell Soup Company, Campbell Sales Company, and Campbell Soup Supply Company.*

Campbell Soup Supply Company will be a wholly owned subsidiary of Campbell Soup Company. Effective August 2, 1999 *Campbell Soup Supply Company* will operate most of the U.S. manufacturing facilities, including the Napoleon plant.

Therefore, we request that the existing Campbell Soup Hazardous Waste Generator ID's OHD005419171 and OHD987046703 be reassigned or transferred to the new *Campbell Soup Supply Company*, Napoleon plant, effective August 2, 1999.

Please contact me at 419-592-1010 if you have any questions.

Sincerely,

CAMPBELL SOUP COMPANY

L. M. Brown
V. P. Mfg. – Napoleon Operations

JLS:sas

cc: O. Aly (Campbell Soup - WHQ)
M. Maringer (Campbell Soup - Napoleon)
R. Furbee (Campbell Soup - Napoleon)

V-8 Plant

Please print or type with ELITE type (12 cha . inch) in the unshaded areas only

m Approved, OMB No. 2050-0028 Expires 9-30-96
GSA No. 0246-EPA-OT

Please refer to the *Instructions for Filling Notification* before completing this form. The information requested here is required by law (Section 3010 of the *Resource Conservation and Recovery Act*).

EPA Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received (For Official Use Only)

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

A. First Notification	B. Subsequent Notification (Complete item C)	C. Installation's EPA ID Number
	X	OHD987046703

II. Name of Installation *(Include company and specific site name)*

CAMPBELL SOUP CO. V8 PLANT

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street: 12-995 STATE ROUTE 110

Street (Continued):

City or Town	State	Zip Code
NAPOLEON	OH	43545-

County Code	County Name
	HENRY

IV. Installation Mailing Address *(See Instructions)*

Street or P.O. Box: 12-773 STATE ROUTE 110

City or Town	State	Zip Code
NAPOLEON	OH	43545-

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name (Last)	(First)
SCOTT	JON

Job Title	Phone Number (Area Code and Number)
ENV. ENGINEER	419-599-6794

VI. Installation Contact Address *(See Instructions)*

A. Contract Address Location	Mailing	Other	B. Street or P.O. Box
	X		

City or Town	State	Zip Code
		-

VII. Ownership *(See Instructions)*

A. Name of installation's Legal Owner: CAMPBELL SOUP COMPANY

Street, P.O. Box, of Route Number: 12-773 STATE ROUTE 110

City or Town	State	Zip Code
NAPOLEON	OH	43545-

Phone Number (Area Code and Number)	B. Land Type	C. Owner Type	D. Change of Owner Indicator	(Date Changed) Month	Day	Year
419-592-1010	P	P	Yes: No: X			

EPA Form 8700-12 (Rev. 11-30-93) Previous edition is obsolete.

Continued on Reverse

V-8 Plant

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 9-30-96
GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes; Refer to Instructions)*

A. Hazardous Waste Activity

1. Generator (See Instructions)
   - [ ] a. Greater than 1000kg/mo (2,200 lbs.)
   - [X] b. 100 to 1000 kg/mo (200-2,200 lbs.)
   - [ ] c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - [ ] a. For own waste only
   - [ ] b. For commercial purposes

Mode of Transportation
- [ ] 1. Air
- [ ] 2. Rail
- [ ] 3. Highway
- [ ] 4. Water
- [ ] 5. Other - specify

3. [ ] Treater, Storer, Disposer (at Installation) Note: A permit is required for this activity; see Instructions.
4. Hazardous Waste Fuel
   - [ ] a. Generator Marketing to Burner
   - [ ] b. Other Marketers
   - [ ] c. Boiler and/or Industrial Furnace
     - [ ] 1. Smelter Deferral
     - [ ] 2. Small Quantity Exemption

Indicate Type of Combustion Device(s)
- [ ] 1. Utility Boiler
- [ ] 2. Industrial Boiler
- [ ] 3. Industrial Furnace

5. [ ] Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Fuel Marketer
   - [ ] a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
   - [ ] b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device(s)
   - [ ] a. Utility Boiler
   - [ ] b. Industrial Boiler
   - [ ] c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Activity(ies)
   - [ ] a. Transporter
   - [ ] b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - [ ] a. Process
   - [ ] b. Re-refine

IX. Description of Hazardous Wastes *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))

B. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
D001	F005	D008	D009		
7	**8**	**9**	**10**	**11**	**12**

C. Other Wastes. *(State or other wastes requiring a handler to have an I.D. number; See instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title *(Type or print)*	Date Signed
Ray Oldach	Ray Oldach - Plant Manager	7/21/95

XI. Comments

Installation contact was changed on this revision.

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section III of the booklet for addresses.)*

Mike Maringer

Mgr. Sewcast Utilities

Bob Councilman - an

OhioEPA
State of Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461 **FAX** (419) 352-8468

George V. Voinovich
Governor

Re: Campbell's Soup
OHD 987023678
OHD 987046703
Hazardous Waste
Henry County
Return to Compliance

December 12, 1994

Mr. Herb Salsbury, Area Manager
Environmental Control
Box 311 State Route 110
Napoleon, Ohio 43545

Dear Mr. Salsbury:

On April 5, 1994, the Ohio Environmental Protection Agency (Ohio EPA) conducted a hazardous waste compliance evaluation inspection of Campbell Soup Company (Campbell's) located in Napoleon, Ohio. This inspection was conducted in order to determine Campbell's compliance with Ohio's hazardous waste generator regulations as adopted under Chapter 3745 of the Ohio Administrative Code (OAC).

During the inspection, violations of Ohio's hazardous waste regulations were noted. Campbell's was notified of these findings in a letter dated April 26, 1994. On May 4, 1994, Campbell's submitted a response to the Agency's Notice of Violation (NOV) containing a timetable for actions to be undertaken to return to compliance for the two cited violations. A second submission from Campbell's was received June 1, 1994. This communication included a proposal from Law Engineering and Environmental Services (Law) for the sampling of the area underlying coal pile which had ignitable hazardous wastes placed on it prior to January, 1993. The Agency responded to this submission in a letter dated June 16, 1994. On September 12, 1994, this office received a revised work plan for the soils underlying the coal pile to which solvent had previously been applied. On September 23, 1994, this office notified Campbell's that the work plan for the sampling of the coal piles appeared adequate.

On December 5, 1994, this office received a copy of Law's site assessment for the coal piles at Campbell's. The results of Law's sampling and analysis indicate that the practice of pouring solvents on one of the coal piles prior to burning the coal in a boiler has not resulted in elevated levels of any solvents poured on the coal pile in the soil underlying that coal pile.

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(revised 12/93)

Because Campbell's has demonstrated that the application of solvent did not impact the soils underlying the coal pile, the violation of ORC Section 3734.02 cited in the April 26, 1994 NOV is considered abated.

Campbell's is considered returned to compliance for all violations cited in the April 5, 1994 NOV.

Campbell's is reminded that the practice of pouring waste solvent on a coal pile prior to the burning of coal in a boiler for the purpose of energy recovery does not meet the requirements of OAC Chapter 3745-58 ("Miscellaneous Methods of Waste Treatment") and must not occur in the future.

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

If you have any questions, feel free to contact me.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/rab

Enclosures

pc: Laurie Stevenson, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
NWDO File

Campbell's Soup

Campbell Soup Company

NAPOLEON, OHIO 43545
December 2, 1994

RECEIVED
DEC 5 1994
OHIO E.P.A.
N.W.D.O.

Mr. Michael R. Terpinski
Division of Hazardous Waste Management
Ohio E.P.A.
Northwest District Office
347 N. Dunbridge Road
Bowling Green, OH 43402

RE: **Campbell Soup Company**
Hazardous Waste Henry County

Dear Mr. Terpinski:

Please find enclosed a copy of the report for the Environmental Site Assessment at the Campbell Soup Company plant. The report outlines the results of soil sampling and analysis to evaluate the impact of pouring solvents on the coal piles on the underlying soils. The work was conducted according to the work plan approved by your office in the letter dated September 23, 1994.

The results of the soil assessment indicate that no volatile or semi-volatile compounds including the target compounds in the poured solvents, were detected in the soils underneath the piles. This indicates that the practice of pouring solvents on the coal piles, which has been discontinued, did not impact the underlying soils.

Therefore, we request your approval for closure of this case. Please let me know if you need any additional information.

Sincerely,

CAMPBELL SOUP COMPANY

Herbert H. Salsbury, Manager
Services & Utilities

HHS:sas

Enclosure

cc: Dr. O. M. Aly
Ms. N. B. Carter
Mr. M. N. Maringer
Mr. R. P. Oldach

Campbell Soup

Campbell Soup Company

NAPOLEON, OHIO 43545

RECEIVED

OCT 11 1994

OHIO E.P.A.
N.W.D.O.

October 7, 1994

Mr. Michael R. Terpinski
Division of Hazardous Waste Management
Ohio E.P.A.
Northwest District Office
347 N. Dunbridge Road
Bowling Green, OH 43402

Dear Mr. Terpinski:

As discussed in our telephone call on Tuesday, October 4, 1994, the Law Engineering Company will be sampling the soil under our coal pile on Tuesday, October 11, 1994. Attached is a copy of their work schedule.

Sincerely,

CAMPBELL SOUP COMPANY

Herbert H. Salsbury, Manager
Services & Utilities

HHS:sas

Attachment

LAW

ENGINEERING AND ENVIRONMENTAL SERVICES

FACSIMILE TRANSMITTAL

DATE: 10/7/94	NUMBER OF PAGES TO FOLLOW COVER PAGE: 0
SENT TO:	Herb Salsbury 6343
COMPANY NAME:	Campbells Soup - Napoleon
FAX NUMBER:	419-599-6672
PHONE NUMBER:	419-592-1010 ext. ~~6343~~ 6343
FROM:	**JIM DeLANO** LAW ENGINEERING, INC. 7300 TURFWAY ROAD, SUITE 250 FLORENCE, KENTUCKY 41042
FAX NUMBER:	(606) 371-2971
PHONE NUMBER:	(606) 371-2960
HANDLING PRIORITY:	[ ] CONFIDENTIAL [X] PRIORITY [ ] NORMAL

COMMENTS: Itinerary

10/10/94 - Arrive in Napoleon

10/11/94 -
- 7:00 - 7:15 Arrive @ Site
- 7:30 ± 9:00 Observe backhoe / locate boring site
- 9:00 - 4:00 Auger Sample Holes / Obtain Samples
- 4:00 - 5:30 Clean up equip / etc
- 5:30 Depart from plant

cc: Don Elliott - Law Crandall 213-889-9309

Osmal Aly - Campbells Soup 609-968-2809

THANK YOU!

IF PAGES ARE NOT RECEIVED IN GOOD ORDER, PLEASE CALL 606/371-2960

OhioEPA
State of Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461 **FAX** (419) 352-8468

George V. Voinovich
Governor

Re: Campbell's Soup
OHD 987023678
OHD 987046703
Hazardous Waste
Henry County

September 23, 1994

Mr. Herb Salsbury, Area Manager
Environmental Control
Box 311 State Route 110
Napoleon, Ohio 43545

Dear Mr. Salsbury:

On April 5, 1994, the Ohio Environmental Protection Agency (Ohio EPA) conducted a hazardous waste compliance evaluation inspection of Campbell Soup Company (Campbell's) located in Napoleon, Ohio. This inspection was conducted in order to determine Campbell's compliance with Ohio's hazardous waste generator regulations as adopted under Chapter 3745 of the Ohio Administrative Code (OAC).

During the inspection, violations of Ohio's hazardous waste regulations were noted. Campbell's was notified of these findings in a letter dated April 26, 1994. On May 4, 1994, Campbell's submitted a response to the Agency's Notice of Violation (NOV) containing a timetable for when actions were to be undertaken to return to compliance for the two cited violations. A second submission from Campbell's was received June 1, 1994. This communication included a proposal from Law Engineering and Environmental Services (Law) for the sampling of the area underlying coal pile which had ignitable hazardous wastes placed on it prior to January, 1993. The Agency responded to this submission in a letter dated June 16, 1994. On September 12, 1994, this office received a revised work plan for the soils underlying the coal pile to which solvent had previously been applied.

The work plan submitted by Law Engineering and Environmental Services appears to be adequate. Campbell's may proceed with the implementation of this work plan. The Agency requests notification at least 24 hours prior to sampling activities to allow an inspector to observe these activities.

If the pouring of solvents on the coal pile has impacted the underlying soil, closure of this area in accordance with OAC Rules 3745-66-11 through 3745-66-16 will be necessary. Campbell's compliance with respect to the closure requirements will be further evaluated after the analytical results are submitted to Ohio EPA, NWDO.

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The violation of ORC Section 3734.02 cited in the April 26, 1994 NOV remains outstanding until Campbell's can demonstrate that the application of solvent did not impact the soils underlying the coal pile.

Please be advised that failure to comply with applicable hazardous waste rules may be cause for enforcement action by this Agency pursuant to chapter 3734 of the Ohio Revised Code.

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

If you have any questions, feel free to contact me.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/rab

pc: Laurie Stevenson, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
NWDO File

Campbell's Soup

Campbell Soup Company

NAPOLEON, OHIO 43545

RECEIVED
SEP 12 1994
OHIO E.P.A.
N.W.D.O.

September 9, 1994

Mr. Michael R. Terpinski
Division of Hazardous Waste Management
Ohio E.P.A.
Northwest District Office
347 N. Dunbridge Road
Bowling Green, OH 43402

This document can be found
in the
NWDO DHWM Facility Document
Library

RE: Campbell Soup Company
Hazardous Waste Henry County

Dear Mr. Terpinski:

Please find enclosed a copy of a revised Work Plan for the assessment of the soils beneath the coal pile and to determine the impact of placing the waste solvents on the coal pile prior to burning in the on-site boiler.

The revised plan was prepared in response to your letter of June 16, 1994 and represents a more focussed approach to the evaluation and the delineation of possible soil contamination in the affected area. As you requested, the analytical methods for testing the soil samples are USEPA Method 8240 for VOC's and USEPA Method 8270 for SVOC's.

We would appreciate letting us know if you have any further comments before we proceed with implementation of the plan.

Sincerely,

CAMPBELL SOUP COMPANY

Herbert H. Salsbury, Manager
Services & Utilities

HHS:sas

Enclosure

cc: Dr. O. M. Aly
Ms. N. B. Carter

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461 FAX (419) 352-8468

George V. Voinovich
Governor

Re: Campbell's Soup
OHD 987023678
OHD 987046703
Hazardous Waste
Henry County
Partial Return to Compliance

June 29, 1994

Mr. Herb Salsbury, Area Manager
Environmental Control
Box 311 State Route 110
Napoleon, Ohio 43545

Dear Mr. Salsbury:

On April 5, 1994, the Ohio Environmental Protection Agency (Ohio EPA) conducted a hazardous waste compliance evaluation inspection of Campbell Soup Company (Campbell's) located in Napoleon, Ohio. This inspection was conducted in order to determine Campbell's compliance with Ohio's hazardous waste generator regulations as adopted under Chapter 3745 of the Ohio Administrative Code (OAC).

During the inspection, violations of Ohio's hazardous waste regulations were noted. Campbell's was notified of these findings in a letter dated April 26, 1994. Campbell's responded to this NOV in letters dated May 4, 1994, June 1, 1994, and June 22, 1994. This letter serves to address Campbell's latest response and to appraise you of the current regulatory status of your facility.

The following violations of Ohio's hazardous waste rules were noted in the April 26, 1994 letter to Campbell's:

1. **Ohio Administrative Code (OAC) Rule 3745-65-33** Campbell's does not test all required spill control, decontamination, fire, and communications equipment in the main plant on a weekly basis.

   On June 22, 1994, this office received a copy of the weekly inspection log showing eight weeks' inspections of Campbell's fire extinguishers. *With this information, this violation is considered abated.*

2. **Ohio Revised Code (ORC) 3734.02(F)** Prior to January, 1993, Campbell's stored and treated ignitable hazardous wastes in a waste pile prior to burning in an on-site boiler without a hazardous waste installation and operation permit or a permit by rule, in violation of ORC section 3734.02(E)(F). Between twenty-two (22) and one hundred (100) gallons per month were poured on the pile and burned.

Campbell's was to obtain samples from beneath the coal pile where solvent was previously poured and from the area beneath the coal pile which was not impacted by this activity. On June 1, 1994, this office received a copy of the sampling strategy proposed by Law Engineering and Environmental Services. Comments to Law's proposed sampling strategy were supplied by the Agency in a letter dated June 16, 1994.

Campbell's is considered returned to compliance for OAC Rule 3745-65-33. The violation of ORC Section 3734.02(F) remains outstanding.

Please be advised that failure to comply with applicable hazardous waste rules may be cause for enforcement action by this Agency pursuant to chapter 3734 of the Ohio Revised Code.

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

If you have any questions, feel free to contact me.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/kje

pc: Laurie Stevenson, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
NWDO File

Campbell Soup

Campbell Soup Company

NAPOLEON, OHIO 43545

RECEIVED
JUN 22 1994
OHIO E.P.A.
N.W.D.O.

June 20, 1994

Mr. Michael R. Terpinski
Division of Hazardous Waste Management
Ohio E.P.A.
Northwest District Office
347 N. Dunbridge Road
Bowling Green, OH 43402

Reference: **Campbell Soup Company**
Hazardous Waste Henry County

Dear Mr. Terpinski:

This is in response to your letter of April 26, 1994 concerning the violation of OAC Rule 3745-65-33. As requested, we started conducting weekly inspection on our Hazardous Area Fire Extinguishers and have attached a copy of the log for the past eight weeks.

Please let me know if any further information on this violation is required.

Sincerely,

CAMPBELL SOUP COMPANY

Herbert H. Salsbury
Manager, Services & Utilities

HHS:sas

Attachment

cc: O. M. Aly
L. M. Brown

Weekly Inspection Log – Main Plant
Hazardous Area – Fire Extinguishers

Inspector of the area must initial the form each week.

Area: Container Time Period: 04-25-94 To

(Retain for three years from above date.)

(1) # M270 Large Portable Dry Chemical for "B" and "C" Fires
(1) # M271 Small Portable Carbon Dioxide for "B" and "C" Fires
(1) Small Portable Dry Chemical ABC

INITIALS:	C.D.	C.D.	C.D.	C.D.	C.D.	C.D.	C.D.	C.D.																	
WEEK:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
DATE:	4/25/94	5/4/94	5/11/94	5/18/94	5/25/94	6/1/94	6/8/94	6/15/94																	
TIME:	6:30 PM	6:30 AM	6:30 AM	7:00 AM	6:30 AM	8:15 AM	6:30 AM	8:30 AM																	
Available	✓	✓	✓	✓	✓	✓	✓	✓																	
Charged	✓	✓	✓	✓	✓	✓	✓	✓																	
Accessible	✓	✓	✓	✓	✓	✓	✓	✓																	
Sealed	✓	✓	✓	✓	✓	✓	✓	✓																	

INITIALS:																									
WEEK:	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
DATE:																									
TIME:																									
Available																									
Charged																									
Accessible																									
Sealed																									

NOTE: It is the inspector's responsibility to ensure that all items are in compliance by making necessary changes or contacting Team Leader immediately.

*Problem acknowledged and corrected.

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461 **FAX** (419) 352-8468

George V. Voinovich
Governor

Re: Campbell's Soup
OHD 987023678
OHD 987046703
Hazardous Waste
Henry County

June 16, 1994

Mr. Herb Salsbury, Area Manager
Environmental Control
Box 311 State Route 110
Napoleon, Ohio 43545

Dear Mr. Salsbury:

On April 5, 1994, the Ohio Environmental Protection Agency (Ohio EPA) conducted a hazardous waste compliance evaluation inspection of Campbell Soup Company (Campbell's) located in Napoleon, Ohio. This inspection was conducted in order to determine Campbell's compliance with Ohio's hazardous waste generator regulations as adopted under Chapter 3745 of the Ohio Administrative Code (OAC).

During the inspection, violations of Ohio's hazardous waste regulations were noted. Campbell's was notified of these findings in a letter dated April 26, 1994. On May 4, 1994, Campbell's submitted a response to the Agency's Notice of Violation (NOV) containing a timetable for when actions were to be undertaken to return to compliance for the two cited violations. A second submission from Campbell's was received June 1, 1994. This communication included a proposal from Law Engineering and Environmental Services (Law) for the sampling of the area underlying coal pile which had ignitable hazardous wastes placed on it prior to January, 1993.

This letter serves to respond to your June 1, 1994 correspondence, and provide the current hazardous waste compliance status of your facility.

The following violations of Ohio's hazardous waste rules were noted in the April 26, 1994 letter to Campbell's:

1. **Ohio Administrative Code (OAC) Rule 3745-65-33** Campbell's does not test all required spill control, decontamination, fire, and communications equipment in the main plant on a weekly basis.

   Campbell's was to begin conducting weekly inspections and submit a copy of one month's inspections to OEPA, NWDO to demonstrate abatement of this violation. In our June 15, 1994 telephone conversation you indicated that this information will be sent soon.

2. **Ohio Revised Code (ORC) 3734.02(F)** Prior to January, 1993, Campbell's stored and treated ignitable hazardous wastes in a waste pile prior to burning in an on-site boiler without a hazardous waste installation and operation permit or a permit by rule, in violation of ORC section 3734.02(E)(F). Between twenty-two (22) and one hundred (100) gallons per month were poured on the pile and burned.

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Campbell's was to obtain samples from beneath the coal pile where solvent was previously poured and from the area beneath the coal pile which was not impacted by this activity. On June 1, 1994, this office received a copy of the sampling strategy proposed by Law Engineering and Environmental Services. The following comments are in response to Law's proposed sampling strategy:

a) Sampling of the area underlying the coal pile not impacted by the addition of solvents must be addressed. While there is mention of one soil boring being taken from the east side of the coal storage and mixing area for background characterization purposes, it is not clear whether this sample is to be taken as a background sample for the purpose of comparing the rest of the samples to the other coal pile or to virgin soil.

b) Prior to sampling, a sampling map must be submitted which shows the location of all sampling points for this event.

c) The analytical methods for testing soil samples are not stated in the sampling strategy. Campbell's must use USEPA Method 8240 for volatile organic chemicals (VOCs) and USEPA Method 8270 for semivolatile organic chemicals (SVOCs).

If the pouring of solvents on the coal pile has impacted the underlying soil, closure of this area in accordance with OAC Rules 3745-66-11 through 3745-66-16 will be necessary. Campbell's compliance with respect to the closure requirements will be further evaluated after the analytical results are submitted to OEPA, NWDO.

The violations cited in the April 26, 1994 NOV remain outstanding.

Please be advised that failure to comply with applicable hazardous waste rules may be cause for enforcement action by this Agency pursuant to chapter 3734 of the Ohio Revised Code.

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

If you have any questions, feel free to contact me.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/jks

pc: Laurie Stevenson, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
NWDO File

RCRA HAZARDOUS WASTE GENERATOR
COMPLIANCE EVALUATION INSPECTION CHECKLIST

Facility: Campbell Soup Company

USEPA I.D.: OHD 987023678 & OHD 987046703

Street: Box 311 State Route 110

City: Napoleon State: Oh Zip: 43545

County: Henry Telphone: 592-1010

Owner/Operator: Campbell Soup Company

Street: Campbell Place P.O. Box 391

City: Camden State: NJ Zip: 08101

Telephone: (609) 964-4000 Fax:

Inspection Date: 4/5/94 Time: 9:30 - 2:00

Advance notice of inspection given? (yes) ___ (no) /
If so, how far in advance? ___

	Name	Agency/Title	Phone
Inspectors:	Mike Terpinski	OEPA/DHWM	352-8461
	Gary S. Deutschman	"	"
Facility Representative:	Herb Salsbury - Manager-Service & Utilities		592-1010
	John A. Gerding - Area Manager-Environmental control		"
592-6343	Michael N. Maringer - Area Manager - ~~Environmental control~~ / Container Manufacturing		

STATUS

Cond. Exempt SQG ___ SQG X Large Quantity Generator ___
LDR Checklist Attached: (yes) / (no) ___

NOTE: LDR requirements are not applicable to CESQGs.

ACTIVITIES

Containers X
Tanks ___
Wastepile /
Landfill ___
Surface Impoundment ___
Used oil burner /
Hazardous waste fuel burner/blender /
Incineration/Thermal treatment ___
Land treatment ___
Groundwater monitoring ___

Revised: (5/29/92)
FINAL

REMARKS - GENERAL INFORMATION

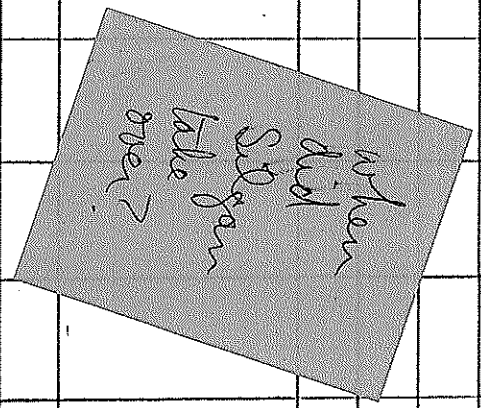
Include list of wastes being generated/managed at the site and a brief description of site activity and waste handling procedures:

Campbell's is a manufacturer of heat processed soups, sauces, pork + beans, + V-8 vegetable juice. Ten million cans of soup per day are produced at the Napoleon plant. Campbell's is a small quantity generator of hazardous waste. Wastes produced on-site include: still bottoms (D001), side stripe rust inhibitor (D001), ~~paint~~ thinner waste (D001). Other wastes which are occasionally generated include: MEK (F005), D+I sump pit sludge, (D001) waste compounds (D001). Before January of 1993, Campbell's poured the mineral spirits waste onto a coal pile + burned it for energy recovery. Records at Campbell's show this activity occurred from at least September of 1991, although Mr. Herb Salisbury of Campbell's said it (the burning) occurred over many years. The wastes are currently managed in a still on-site. The coal pile was located at the main plant.

FACILITY INSPECTION
WASTE MANAGEMENT ACTIVITIES SUMMARY

DESCRIPTION OF WASTE | ON SITE MANAGEMENT | OFF SITE MANAGEMENT

EPA WASTE CODE	QTY GEN PER MO.	PROCESS/ACTIVITY GENERATING WASTE	GENERATOR: LESS THAN 90 DAYS	GENERATOR: LESS THAN 180 DAYS	GENERATOR: LESS THAN 270 DAYS	TSD	TYPE OF ON-SITE TREATMENT (WHERE APPLICABLE)	RECYCLED	CONTAINER	IMPOUNDMENT	TANK	WASTE PILE	LANDFILL	DESCRIPTION OF OFF SITE MANAGEMENT
D001	405 lbs	still bottoms from re-distillation of mineral spirits	/											Safety-Kleen Ky
D001	144 lbs	side stripe (rust inhibitor for cars)	/											Safety-Kleen Ky
D001	206 lbs	thinner waste	/											Safety-Kleen Ky
D001	[illegible]/mo	waste compound	/											Safety-Kleen Ky
D001	210 lbs/yr	waste paint	/											Safety-Kleen Ky
F005	<55 gal/yr	machine shop + sprayer clean out	/											Safety-Kleen



GENERATOR CLASSIFICATION (OAC 3745-52-34)

Does the facility:

1. Generate < 100 Kg (25-30 gallons) of hazardous waste in a calendar month?

   (yes) _____ (no) _____

   If so, the facility is classified as a Conditionally Exempt Small Quantity Generator, unless 3.b. applies. Please complete the Conditionally Exempt Small Quantity Generator Requirements checklist.

2. Generate between 100 and 1000 Kg of hazardous waste in a calendar month? (about 25 to under 300 gallons)

   (yes) ✓ (no) _____

   If so, the facility is classified as a Small Quantity Generator, unless 3.b. applies. Please stop here and complete the Small Quantity Generator Requirements checklist.

3. a. Generate > 1000 Kg (~ 300 gallons) of hazardous waste in a calendar month?

   (yes) _____ (no) _____

   or;

   b. Generate > 1 Kg of acutely hazardous waste in a calendar month?

   (yes) _____ (no) _____

   If so, the facility is classified as a Large Quantity Generator. Please complete the Large Quantity Generator Requirements checklist.

REMARKS - GENERATOR CLASSIFICATION

SMALL QUANTITY GENERATOR (SQG) REQUIREMENTS

WASTE EVALUATION (OAC 3745-52-11) **Y/N/NA** **RMK #**

1. Have the wastes generated at the facility been evaluated as required under 3745-52-11? Y

   (a) Has the generator's evaluation identified in Question #1 included an evaluation for the (TC) Toxicity Characteristics identified in 3745-51-24? [3745-52-11(C)] Y

NOTE: The TC Rule requirement noted above must include an evaluation of the metal as well as organic TC constituents identified in 3745-51-24.

If not, please specify those waste(s) which the SQG has failed to provide an adequate evaluation of:

GENERATOR CLASSIFICATION

2. Do quantities of hazardous waste accumulated on-site exceed 6000 kgs? (If so, TSD standards apply. Complete applicable TSD checklists.) [3745-52-34(D) and (F)] NA

GENERATOR IDENTIFICATION NUMBER (OAC 3745-52-12)

3. Has the generator obtained an identification number from either US EPA or Ohio EPA as required under 3745-52-12 prior to treating, storing, disposing, transporting or offering hazardous waste for transport? Y

MANIFEST REQUIREMENTS (OAC 3745-52-20 TO 3745-52-23)

4. Are waste streams generated at the facility being reclaimed under a contractual agreement as defined in OAC 3745-52-20(F)? NA

If not, the generator is subject to manifest requirements of OAC 3745-52-20 through 3745-52-23. Please complete the **Manifest Requirements** checklist to document compliance with these requirements.

SQG - EMERGENCY PROCEDURES/PREPAREDNESS AND PREVENTION (OAC 3745-65-30 TO 3745-65-37) | **Y/N/NA** | **RMK #**

5. Is an emergency coordinator available at all times? [3745-52-34(D)(5)(a)] — Y

6. Has the following information been posted by the telephone? [3745-52-34(D)(5)(b)]:

   a. Name and telephone number of emergency coordinator? — Y

   b. Location of fire and spill control equipment? — Y

   c. Telephone number of local fire department? —

7. Have emergencies been reported to the National Response Center? [3745-52-34(D)(5)(d)] — NA

8. Are all employees thoroughly familiar with proper handling and emergency procedures? [3745-52-34(D)(5)(c)] — Y

In addition to the above, the small quantity generator must comply with the "Preparedness and Prevention" requirements of OAC 3745-65-30 through 3745-65-37. Please complete the **Preparedness and Prevention** checklist to document compliance with these requirements.

SQG - ACCUMULATION OF HAZARDOUS WASTES (OAC 3745-52-34)

9. Is the generator accumulating hazardous wastes in containers? If so, — Y

   a. Is the date accumulation began clearly marked on each container [3745-52-34(A)(2)]? — Y

   b. Is each container clearly marked with the words "Hazardous Waste" [3745-52-34(A)(3)]? — Y

In addition to the above, if the generator is accumulating hazardous waste in containers, please complete the **Management of Containers** checklist. If the Small Quantity Generator is operating a satellite accumulation area, the **Satellite Accumulation Area Requirements** portion of the checklist must also be completed.

10. Is the generator accumulating hazardous wastes in tanks? — NA

    a. If so, is each tank clearly marked with the words "Hazardous Waste" [3745-52-34(A)(3)]? — Y

In addition to the above, if the generator is accumulating hazardous waste(s) in tanks, please complete the **Accumulation in Tanks for SQG's** checklist.

	Y/N/NA	RMK #
11. Has the generator accumulated hazardous wastes in excess of 180 days (or 270 days if the waste must be transported more than 200 miles)? [3745-52-34(E)]	NA	
a. If so, has the generator been granted an extension by the Director for accumulation in excess of 180 (or 270) days?		

REMARKS - SMALL QUANTITY GENERATOR REQUIREMENTS

MANIFEST REQUIREMENTS (OAC 3745-52-20 TO 3745-52-23) **Y/N/NA RMK #**

1. Does the generator meet the following requirements with respect to the preparation, use and retention of the hazardous waste manifest:

   a. All hazardous wastes shipped off-site have been accompanied by a completed manifest, US EPA form 8700-22 in compliance with 3745-52-20(A)? — Y

   b. The manifest contains all information required by 3745-52-20 and the minimum number of copies required by 3745-52-22? — Y

   c. The generator has designated at least one permitted disposal facility and has/will designate an alternate facility or instructions to return waste in compliance with 3745-52-20(C)(D)(E)? — Y

   d. Prepared manifests have been signed by the generator and initial transporter in compliance with 3745-52-23 (A)(1)(2)? — Y

2. Has the generator received a return copy of each completed manifest within thirty-five (35) days of the date the waste was accepted by the initial transporter? — Y

   a. If not, has the generator complied with the manifest exception reporting requirements in 3745-52-42? —

NOTE: The manifest exception reporting requirement identified in Question #2 above is applicable to large quantity generators only. See Question #3 for manifest exception reporting requirements for small quantity generators.

3. If the generator is acting as a small quantity generator, (> 100 kg but < 1000 kg of hazardous waste in a calendar month) has the generator received a return copy of each completed manifest within sixty days of receipt by the initial transporter? [3745-52-42(B)] — Y

   a. If not, did the generator submit a legible copy of the manifest with some indication that the generator has not received confirmation of delivery to the Ohio EPA? [3745-52-42(B)] — NA

4. Are signed copies of all hazardous waste manifests and any documentation required for Exception Reports retained for at least 3 years as required by 3745-52-40? — Y — 1

1. Records are available starting 9/91. Prior to 9/91, solvents were burned in a boiler for energy recovery.

OAC 3745-58 USED OIL BURNED FOR ENERGY RECOVERY

	Y/N/NA	RMK #
1. Is used oil or used oil fuel being burned for energy recovery in a boiler or industrial furnace? [3745-58-50(A)]	Y	
2. Does the used oil contain more than 1000 ppm total halogens?	N	
If yes, it is regulated as a hazardous waste fuel under 3745-58. [3745-58-50(C)]		
3. Is the used oil a hazardous waste solely because it:		
a. Exhibits a characteristic identified under 3745-51? [3745-58-50(C)]	N/A	
b. Contains hazardous waste generated by Conditionally Exempt Small Quantity Generators only? [3745-58-50(D)]	N	

If either 3.a. or 3.b. is yes, the used oil is regulated as a used oil not a hazardous waste fuel.

4. Is the used oil classified as "off-specification" due to exceedances of any of the following allowable levels of constituents: [3745-58-50(E)]

Constituent	Allowable Level		
a. Arsenic	5 ppm maximum		<10
b. Cadmium	2 ppm maximum		<3
c. Chromium	10 ppm maximum		<2
d. Lead	100 ppm maximum 326	✓	326
e. Flash Point	100 degrees F minimum		>140
f. Total Halogens	4,000 ppm maximum		

WASTE COOLANT OIL

5. If the generator/marketer claims that used oil meets or exceeds specification, does the generator/marketer have analyses of used oil documenting that it meets/exceeds specification? [3745-58-53(B)(1)]	Y	
6. If the marketer is handling specification used oil, does he/she maintain an operating log containing the following information: [3745-58-53(B)(7)]		
a. Name and address of facility receiving the shipment?	NA	
b. Date of shipment or delivery?		
c. Cross-reference to the record of used oil analysis?		

	Y/N/NA	RMK #
7. Are used oil analyses and the operating log kept for a minimum of 3 years?	Y	

THE FOLLOWING QUESTIONS APPLY ONLY TO MARKETERS/BURNERS OF OFF-SPECIFICATION USED OIL FUEL:

8. Has the marketer filed a Notification or Re-notification of Hazardous Waste Activity with US EPA? [3745-58-53(B)(3)] and [3745-58-54(B)]	NA	
9. Has the burner of off-specification used oil notified US EPA of his/her used oil management activities (except for oil-fired space heaters described under 3745-58-51(B)(2)(c)? [3745-58-54(B)]	Y	
10. When the marketer initiates shipment of off-specification used oil, has he/she prepared and sent the receiving facility an invoice containing the following information: [3745-58-53(B)(4)]		
a. An invoice number?	NA	
b. The marketer's name, address, and US EPA I.D. No.?		
c. The receiving facility's name, address and US EPA I.D. No.?		
d. The quantity of off-specification used oil delivered?		
e. The date(s) of shipment or delivery?		
f. The statement "This used oil is subject to Ohio EPA regulation under Rules 3745-58-50 to 3745-58-54 of the Ohio Administrative Code?"		
11. Prior to initiating the first shipment of off-specification used oil, has the marketer obtained written notice certifying that recipients have notified US EPA (and if a burner will burn only in industrial furnaces or boilers)? [3745-58-53(B)(5)]	NA	
12. Before accepting shipments of off-specification used oil from other marketers, has the marketer certified that he/she has notified US EPA of the marketing activity? [3745-58-53(B)(5)]	NA	

	Y/N/NA	RMK #
13. Are copies of certifications, invoices and analyses maintained for 3 years? [3745-58-53(B); 3745-58-54(F)]	Y	
14. Has the burner certified to marketers from whom he/she receives off-specification oil that he/she has a US EPA I.D. No. and will only burn the used oil in an industrial furnace or boiler identified in 3745-58-51(B)? [3745-58-54(C)]	NA	

REMARKS - USED OIL BURNER/MARKETER REQUIREMENTS

PREPAREDNESS AND PREVENTION (OAC 3745-65-30 TO 3745-65-37) **Y/N/NA RMK #**

1. Is the facility operated to minimize the possibility of fire, explosion, or non-planned release of hazardous waste? [3745-65-31] Y

2. Has there been a fire, explosion or non-planned release of waste at the facility since date of last inspection? N

   a. If yes, was the contingency plan implemented? [3745-65-51(B)] Y

NOTE: Small quantity generators are not required to maintain a contingency plan. Question #2(a) is, therefore, not applicable to SQGs.

3. If required due to actual hazards associated with the waste, does the facility have the following equipment: [3745-65-32(A)(B)(C)(D)]

   a. Internal alarm system? Y

   b. Access to telephone, radio or other device for summoning emergency assistance? Y

   c. Portable fire control equipment, spill control and decontamination equipment? Y

   d. Water of adequate volume and pressure via hoses, sprinkler, foamers or sprayers? Y

4. Is all required spill control and decontamination equipment, fire and communications equipment tested on a weekly basis and maintained as necessary? [3745-65-33] N 1

   a. Does the facility keep an equipment testing log required by 3745-65-33(B), including date and time of test, name of person conducting the test, observations made, and date and nature of any repairs? Y

5. If required due to the actual hazards associated with the waste, do personnel have immediate access to an emergency communication device during times when hazardous waste is being physically handled? [3745-65-34] Y

6. If required due to the actual hazards associated with the waste, is adequate aisle space maintained to allow unobstructed movement of emergency or spill control equipment? [3745-65-35] Y

	Y/N/NA	RMK #
7. If required due to the actual hazards associated with the waste, has the facility attempted to make appropriate arrangements with local authorities to familiarize them with possible hazards and facility layout? [3745-65-37(A)]	Y	
8. Where state and local emergency service authorities have declined to enter into any proposed special arrangements or agreements, has the refusal been documented? [3745-65-37(B)]	NA	

REMARKS - CONTINGENCY PLAN/PREPAREDNESS AND PREVENTION REQUIREMENTS

1. Equipment tested monthly.

USE AND MANAGEMENT OF CONTAINERS (OAC 3745-66-70 TO 3745-66-77)	Y/N/NA	RMK #
1. Are hazardous wastes stored in containers which are:		
a. Closed? [3745-66-73(A)]	Y	
b. In good condition? [3745-66-71]	Y	
c. Compatible with wastes stored in them? [3745-66-72]	Y	
2. Are containers stored closed except when it is necessary to add or remove wastes? [3745-66-73(A)]	Y	
3. Are hazardous waste containers stored, handled and opened in a manner which prevents container rupture or leakage? [3745-66-73(B)]	Y	
4. Is the area where containers are stored inspected for evidence of leaks or corrosion at least weekly? [3745-66-74]	Y	
5. Is the facility recording inspections described in Question #4 in an inspection log or inspection summary as required by OAC 3745-66-74(B) which contains the following information:		
a. Date and time of inspections?	Y	
b. Name of inspector?	Y	
c. Notation of observations made during the inspection?	Y	
d. The date and nature of any repairs or other remedial action?		
6. Are ignitable and/or reactive hazardous waste(s) being managed at the facility? If so,	Y	
a. Are containers holding ignitable or reactive waste located at least 50 feet (15 meters) from the facility's property line? [3745-66-76]		
b. Are containers holding hazardous wastes stored separately from other materials which may interact with the waste in a hazardous manner? [3745-66-77(C)]		

NOTE: Small Quantity Generators are not required to comply with OAC Rule 3745-66-67 (except for wastes being accumulated in satellite accumulation areas). [See OAC Rules 3745-52-34(D)(2) and (C)(1)(a)]

OAC CHAPTER 3745-59 - LDR GENERAL REQUIREMENTS

CASE-BY-CASE EXTENSIONS	Y/N/NA	RMK#
1. Has the entity received an extension for compliance with land disposal restrictions from US EPA pursuant to 40 CFR 268.5? If yes,	NA	
(a) List the waste(s) affected:		
(b) Has the extension been recognized by the Director of Ohio EPA? [O.A.C. Rule 3745-59-05(C)]		
(c) When does the extension expire? _____		

NOTE: A case-by-case extension can be granted for up to one year. The extension is renewable once (by US EPA) for an additional year. Until receiving approval of the extension by US EPA and recognition of the extension by the Director of Ohio EPA, the entity must continue to manage the waste in accordance with all applicable LDR requirements.

VARIANCE FROM A TREATMENT STANDARD		
2. Has the entity been granted a variance from a treatment standard by US EPA pursuant to 40 CFR 268.44? If yes,	NA	
(a) List the waste(s) affected:		
(b) Has the variance been recognized by the Director of Ohio EPA? [O.A.C. Rule 3745-59-44(C)]		

NOTE: Until the variance has been approved by US EPA and recognized by the Director of Ohio EPA, the entity must continue to manage the waste in compliance with the LDR requirements.

NO MIGRATION PETITION | **Y/N/NA** | **RMK#**

3. Has the entity received a variance from US EPA to allow for continued land disposal of untreated LDR wastes based upon a demonstration that there will be no migration from the disposal unit pursuant to 40 CFR 268.6? If yes, NA

   (a) List the waste(s) affected:

   (b) Has the entity's "no migration" demonstration been recognized by the Director of Ohio EPA? [O.A.C. Rule 3745-59-06(C)]

NOTE: Until the no migration petition has been approved by US EPA and recognized by the Director of Ohio EPA, the entity must continue to manage the waste in compliance with the LDR requirements.

PROHIBITION AGAINST DILUTION

4. Does the entity dilute a restricted waste or a treatment residue from a restricted waste: [O.A.C. Rule 3745-59-03; 40 CFR 268.3]

   (a) As a substitute for adequate treatment to achieve compliance with LDR treatment standards? NA

   (b) To circumvent the effective date of a prohibition (e.g. to dilute a "non-wastewater" waste to a "wastewater" to avoid complying with the "non-wastewater" treatment standard)?

   (c) To otherwise avoid a prohibition in O.A.C. Rules 3745-59-30 through 3745-59-35 (40 CFR 268.30 through 268.35)?

   (d) To otherwise avoid a prohibition imposed by Section 3004 of RCRA?

NOTE: If the answer to any of the Questions 4(a) through 4(d) above is yes, the entity is impermissibly diluting a restricted waste and is in violation of O.A.C. Rule 3745-59-03 (40 CFR 268.3).

NOTE: Dilution of wastes is permissible under some conditions. See O.A.C. Rule 3745-59-03(B) (40 CFR 268.3) and the Third Third final rule preamble for additional information.

LDR - GENERATOR REQUIREMENTS

NOTE: The following requirements apply only to large quantity generators and small quantity generators. Conditionally exempt small quantity generators are exempt from land disposal restriction requirements as referenced in O.A.C. Rules 3745-59-01(E)(1) (40 CFR 268.1(e)(1)) and 3745-51-05(B) (40 CFR 261.5(b)).

EVALUATION OF WASTES/DETERMINING APPROPRIATE TREATMENT STANDARDS	**Y/N/NA**	**RMK#**
1. Has the generator adequately evaluated all wastes to determine if they are restricted from land disposal? [O.A.C. Rule 3745-59-07(A); 40 CFR 268.7(a)]	Y	
(a) **For determinations based solely on knowledge of the waste:** Is supporting data used to make this determination being retained on-site? [O.A.C. Rule 3745-59-07(A)(5); 40 CFR 268.7(a)(5)]	Y	
(b) **For determinations based upon analytical testing:** Is a copy of waste analysis data being retained on-site? [O.A.C. Rule 3745-59-07(A)(5); 40 CFR 268.7(a)(5)]	Y	
2. Has the generator determined the correct "treatability group" for each waste restricted from land disposal (e.g. wastewater, non-wastewater, high arsenic, low arsenic, high zinc, low zinc, etc.)? [O.A.C. Rule 3745-59-07(A); 40 CFR 268.7(a)]	Y	
3. Has the generator correctly determined if restricted wastes meet or exceed treatment standards? [O.A.C. Rule 3745-59-07(A); 40 CFR 268.7(a)]	Y	
4. Does the entity generate any listed waste(s) which are restricted from land disposal? If so,	Y	
(a) Do such wastes also exhibit hazardous waste characteristics as identified in O.A.C. Rules 3745-51-20 to 3745-52-24? (40 CFR 261.20 through 261.24)?	NA	
(b) **For listed wastes which also exhibit a characteristic:** Does the generator also identify the appropriate treatment standard for the constituent(s) which cause the waste to exhibit the characteristic(s)? [O.A.C. Rule 3745-59-09(A); 40 CFR 268.9(a)]		

NOTE: The generator is not required to identify the treatment standard for the characteristic if the listing covers the associated characteristic (e.g. a F019/D007 hazardous waste - F019 being listed due to chromium content and D007 being the characteristic waste code for chromium). [See O.A.C. Rule 3745-59-09(B); 40 CFR 268.9(b)]

TREATMENT OF CHARACTERISTIC HAZARDOUS WASTE	Y/N/NA	RMK#
5. Does the generator treat characteristic hazardous waste(s) in a RCRA-exempt unit to render such wastes non-hazardous?	NA	
(a) If so, are treated waste(s) sent to a licensed solid waste disposal facility?		
i. If so, with each shipment of waste, does the generator submit a notification and certification to the Regional Administrator/Director which contains the following:		
a. Name and address of the facility receiving the waste? [O.A.C. Rule 3745-59-09(D)(1)(a); 40 CFR 268.9(d)(1)(i)]		
b. A description of the waste as initially generated, including EPA hazardous waste numbers and treatability group? [O.A.C. [Rule 3745-59-09(D)(1)(b); 40 CFR 268.9 (d)(1)(ii)]		
c. The treatment standards applicable to the waste at the initial point of generation? [O.A.C. Rule 3745-59-09(D)(1)(c); 40 CFR 268.9(d)(1)(iii)]		
ii. Is the certification signed by an authorized representative and does it contain the language in O.A.C. Rule 3745-59-07(B)(5)(a) (40 CFR 268.7 (b)(5)(i)? [O.A.C. Rule 3745-59-09(D)(2); 40 CFR 268.9(d)(2)]		

NOTE: An example of a RCRA-exempt unit would include an elementary neutralization unit or a wastewater treatment unit as defined by O.A.C. Rule 3745-50-10. [See O.A.C. Rule 3745-65-01]

REMARKS

NOTIFICATION/CERTIFICATION	Y/N/NA	RMK#

6. **For wastes that do not meet treatment standards:** Does the generator notify the treatment/storage facility receiving the wastes, in writing, that wastes being received do not meet treatment standards? [O.A.C. Rule 3745-59-07(A)(1); 40 CFR 268.7(a)(1)]

   Y

   If so, does the notification include the following:

   (a) EPA hazardous waste number? [O.A.C. Rule 3745-59-07(A)(1)(a); 40 CFR 268.7(a)(1)(i)]

   (b) Appropriate treatment standard for the waste? [O.A.C. Rule 3745-59-07(A)(1)(b); 40 CFR 268.7(a)(1)(ii)]

   (c) The manifest number associated with the shipment of waste? [O.A.C. Rule 3745-59-07(A)(1)(c); 40 CFR 268.7(a)(i)(iii)]

   (d) Waste analysis data, where available? [O.A.C. Rule 3745-59-07(A)(1)(d); 40 CFR 268.7(a)(1)(iv)]

7. Is the notification identified in Question #6 submitted with each shipment of waste? [O.A.C. Rule 3745-59-07(A)(1); 40 CFR 268.7(a)(1)]

   Y

8. **For wastes that meet treatment standards:** Does the generator submit a written notice and certification to the treatment, storage or disposal facility receiving the wastes stating wastes being received meet applicable treatment standards? [O.A.C. Rule 3745-59-07(A)(2); 40 CFR 268.7(a)(2)]

   NA

   If so, does the notice/certification include the following:

   (a) EPA hazardous waste number? [O.A.C. Rule 3745-59-07(A)(2)(a)(i); 40 CFR 268.7(a)(2)(i)(A)]

   (b) The corresponding treatment standards and applicable prohibitions for the waste? [O.A.C. Rule 3745-59-07(A)(2)(a)(ii); 40 CFR 268.7(a)(2)(i)(B)]

   (c) The manifest number associated with the shipment of waste? [O.A.C. Rule 3745-59-07(A)(2)(a)(iii); 40 CFR 268.7(a)(2)(i)(C)]

   (d) Waste analysis data, where available? [O.A.C. Rule 3745-59-07(A)(2)(a)(iv); 40 CFR 268.7(a)(2)(i)(D)]

   (e) Is the certification signed by the generator or an authorized representative? [O.A.C. Rule 3745-59-07(A)(2)(b); 40 CFR 268.7(a)(2)(ii)]

	Y/N/NA	RMK#
9. Is the notification/certification identified in Question #8 submitted with each shipment of waste? [O.A.C. 3745-59-07 (A)(2); 40 CFR 268.7(a)(2)]	NA	
10. **For wastes subject to a case-by-case extension, exemption or a variance:** Does the generator provide written notice to the facility receiving the waste that the waste is not prohibited from land disposal? [O.A.C. Rule 3745-59-07 (A)(3); 40 CFR 268.7(a)(3)]	NA	
If so, does the notice contain the following information:		
(a) EPA hazardous waste number? [O.A.C. Rule 3745-59-07 (A)(3)(a); 40 CFR 268.7(a)(3)(i)]		
(b) The corresponding treatment standard and applicable prohibitions? [O.A.C. Rule 3745-59-07(A)(3)(b); 40 CFR 268.7(a)(3)(ii)]		
(c) The manifest number associated with the shipment of waste? [O.A.C. Rule 3745-59-07(A)(3)(c); 40 CFR 268.7(a)(3)(iii)]		
(d) Waste analysis data, where available? [O.A.C. Rule 3745-59-07(A)(3)(d); 40 CFR 268.6(a)(3)(iv)]		
(e) The date the waste is subject to the prohibitions? [O.A.C. Rule 3745-59-07(A)(3)(e); 40 CFR 268.7(a)(3)(v)]		
11. Does the generator retain on-site a copy of all notices, certifications, demonstrations and waste analysis data for at least five years? [O.A.C. Rule 3745-59-07(A)(6); 40 CFR 268.7(a)(7)]	Y	1

REMARKS

1. Prior to '91, no records exist because waste was placed on a coal pile + burned in a boiler.

Campbell's Soup

Campbell Soup Company

NAPOLEON, OHIO 43545

May 31, 1994

RECEIVED
JUN 1 1994
OHIO E.P.A.
N.W.D.O.

Mr. Michael R. Terpinski
Division of Hazardous Waste Management
Ohio EPA
Northwest District Office
347 N. Dunbridge Road
Bowling Green, OH 43402

RE: Campbell Soup Company
Hazardous Waste Henry County

Dear Mr. Terpinski:

Please find enclosed a copy of a proposal from Law Engineering, Inc. for the assessment of the soils beneath the coal pile and to determine the impact of placing the waste solvents on the coal pile prior to burning in the on-site boiler.

This proposal is submitted for your review and comments as indicated in our letter of May 2, 1994 in response to the Notice of Violation of May 26, 1994. We will proceed with the implementation of the sampling plan immediately after we receive your comments.

Please let me know if any further information is requred.

Sincerely,

CAMPBELL SOUP COMPANY

H. H. Salsbury, Manager
Services & Utilities

HHS:sas

Enclosures

cc: Dr. O. M. Aly
Mr. L. M. Brown
Ms. N. B. Carter

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

May 25, 1994

Campbell Soup Company
Campbell Place
Camden, New Jersey 08103-1799

Attention: Dr. Osman M. Aly
Director of Environmental Affairs

Subject: **Proposal -**
Phase II Environmental Site Assessment
Campbell Soup Company Napoleon Plant / Coal Stockpile Area
Napoleon, Ohio
Law Engineering Proposal No. CIN.94.671

Dear Mr. Aly:

As requested, Law Engineering, Inc. (LAW), an Ohio Certified Corporation (Certification No. 775832; expiration dated 6-30-94) is pleased to present this proposal to perform a Phase II environmental site assessment at the above referenced site located at the Campbell Soup Company's Napoleon Plant in Napoleon, Ohio.

BACKGROUND

The subject facility is a soup production and canning complex. This assessment is being performed in response to a notice of violation presented to the Campbell Soup Company by Ohio Environmental Protection Agency (EPA). The Ohio EPA alleges that certain contamination of surface soils in the area adjacent to the power plant may have occurred as a result of mixing spent solutions with coal prior to burning. This area is approximately one acre of land on the south and west sides of the power plant. The eastern portion of the mixing area is paved with concrete.

Solvents mixed with coal prior to burning include "O Thinner" and "F Thinner". These solvents are used to clean coatings used during the can production.

On May 16, 1994 Mr. Daniel Elliott and Mr. Jeffrey Hunt of Law Companies met with Dr. Aly, Mr. Richard Mahnke, and Mr. Mike Maringer of Campbell Soups at the site. The purpose of the visit was to prepare a scope of work for the space to perform the assessment and to review the site conditions.

We understand that the notice of violation applies to the period after January, 1993.

SCOPE OF SERVICES

The scope of our Phase II environmental site is summarized as follows:

- Prepare a site-specific safety plan & work plan to be submitted to Ohio EPA for approval prior to site activities.
- Drill and sample 16 hand-auger borings after removal of coal by Campbell Soup personnel.
- Perform laboratory analysis for specific compounds on selected soil samples
- Submit an assessment report documenting the work performed and present our conclusions and recommendations regarding the sites.

A description of our assessment tasks is presented as follows:

Site Safety Plan

We will prepare a work plan and a site specific safety plan in substantial accordance with the Ohio EPA document - Closure Plan Review Guidance dated May 1, 1991. The workplace will include LAW's procedures to obtain, collect and transport soil samples collected during site assessment activities.

Our site specific safety plan will outline the known chemical and workplace hazards as well as outline precautions and safety procedures which will be followed during the field work.

Test Boring Construction

A total of 16 hand auger soil borings will be drilled at the subject site along three radial grid lines which are intended to represent the path of the backhoe operator when the solvents are mixed in the coal piles. Fifteen samples will be taken at approximate 25 feet intervals along the radial lines as follows:

- Nine 3-feet deep borings will be advanced along the three radial lines at separate locations across the subject site. Samples will be collected at a depth of 1 and 3 feet.

- Six 5-feet deep borings will be advanced between shallow borings at alternate locations (second and fourth) along the radial lines.

In addition we will advance one 5-feet deep boring near the east side of the coal storage and mixing area as a background sample.

The borings will be drilled with hand auger equipment. The samples will be retained in clean, brass sleeves that will be capped with plastic ends, labeled and placed into a chilled ice chest, then transported to a state-certified laboratory for analysis. The appropriate Chain-of-Custody documentation will accompany the samples at all lines.

Hand-auger, soil samplers, and brass sampling sleeves will be washed prior to use, and between sampling intervals using the standard EPA three bucket wash/rinse.

Upon completion, the borings will be backfilled with native soil.

Laboratory Analysis

Selected soil samples will be analyzed for the target compounds addressed in the Notice of Violation (NOV) dated April 26, 1994. We have included in our opinion of cost the analysis of 21 soil samples for alcoholes by direct injection into the Flame Ionization Detector (FID). The alcoholes of interest are 2 - Butoxy Alcohol, Cylochexanol and Isobutyl alcohol. Standards for these compounds will be generated prior to the analyses.

An additional 21 soil samples will potentially be analyzed by EPA methods 3810/8015M using a standard created by a sample of the Shell 135 supplied by Campbell Soup Company.

Data Evaluation and Report Preparation

We will summarize the findings of our Phase II assessment work in a written report that will contain field observations, laboratory data, and our conclusion and recommendations.

The report will contain copies of laboratory analytical data, Chain-of-Custody documentation, as well as site sketches, and other graphics as needed.

PROPOSED SCHEDULE

Field work can begin within five to ten days of receiving your written authorization. We anticipate that we can complete our field work in two days. Laboratory analyses

will be available from the laboratory two to three weeks after completion of field work. Our report will be completed within one to two weeks after the receipt of the laboratory results.

FEES

The fee for our services will be based on the rates given in the attached Environmental Services Fee Schedule. We estimate the cost of the above services will be approximately A breakdown is presented in the attached Table A. We will not exceed this amount without your prior approval. We will invoice monthly as work progresses.

AUTHORIZATION

To authorize us to proceed with the proposed services and to make this proposal, our statement of Terms and Conditions, and other enclosures the agreement between us, please execute the attached Proposal Acceptance Sheet and return the acceptance copy to us. Any exceptions to this proposal or special requirements not covered in the proposal should be listed on the Proposal Acceptance Sheet.

We appreciate the opportunity to submit this proposal. If you have any questions regarding its contents, please contact us. We look forward to working with you on this and future projects.

Sincerely,

LAW ENGINEERING, INC.

Jeffrey A. Hunt, P.E.
Principal Engineer and
Cincinnati Office Manager

LAW/CRANDALL, INC.

Dan Elliott

Dan Elliott, R.G.
Principal Geologist
Remediation Services Manager

attachments: Terms and Conditions
Proposal Acceptance Sheet
Environmental Services Fee Schedule

Campbell Soup Company

NAPOLEON, OHIO 43545

RECEIVED
MAY 04 1994
OHIO E.P.A.
N.W.D.O.

May 2, 1994

Mr. Michael R. Terpinski
Division of Hazardous Waste Management
Ohio EPA
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402

RE: Campbell Soup Company
Hazardous Waste Henry County

Dear Mr. Terpinski:

This is in response to your letter of April 26, 1994 concerning the violations observed during the hazardous waste compliance evaluation inspection of Campbell Soup Company (Campbell) plant in Napoleon, Ohio conducted on April 5, 1994.

The following are the courses of actions to be undertaken for compliance with each of the two violations:

1. Campbell has already started testing all the emergency equipment in the hazardous waste management areas on a weekly basis with logs maintained in accordance with Ohio Administrative Code Rule 3745-65-33. Campbell will submit a copy of one month's inspections to OEPA, NWDO.

2. The following are the actions and timetables necessary for compliance of the violation resulting from placing the spent solvents onto the coal pile prior to burning in the on-site boiler:

1. Campbell will retain a qualified environmental consulting firm for the development of the sampling plan for the soil beneath the coal pile where the solvents were previously poured and from the area which was not impacted by this activity. This action will be completed by May 30, 1994.

2. The sampling plan will be reviewed with your office and will be subsequently immediately implemented. The timetable for this action and receiving the report with analytical results will be forwarded to your office as soon as it becomes available.

3. Any area where the soil may have been impacted will be closed in accordance with OAC Rules 3745-66-11 through 3745-66-16 after further review with your office.

Please let me know if any further information is required.

Sincerely,

CAMPBELL SOUP COMPANY

Herbert H. Salsbury
Manager - Services & Utilities

HHS:sas

cc: Dr. O. M. Aly
Mr. L. M. Brown

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461 **FAX** (419) 352-8468

George V. Voinovich
Governor

Re: Campbell's Soup
OHD 987023678
OHD 987046703
Hazardous Waste
Henry County

April 26, 1994

Mr. Herb Salsbury, Area Manager
Environmental Control
Box 311 State Route 110
Napoleon, Ohio 43545

Dear Mr. Salsbury:

On April 5, 1994, the Ohio Environmental Protection Agency (Ohio EPA) conducted a hazardous waste compliance evaluation inspection of Campbell Soup Company (Campbell's) located in Napoleon, Ohio. This inspection was conducted in order to determine Campbell's compliance with Ohio's hazardous waste generator regulations as adopted under Chapter 3745 of the Ohio Administrative Code (OAC). Campbell's was represented by Michael Maringer, John Gerding, Carolyn Oberhaus, David Alvord, and yourself. The Ohio EPA was represented by Gary Deutschman and the writer. The Agency's inspection included a tour of your facility and a review of written documentation.

Campbell's is a manufacturer of heat processed soups, sauces, pork and beans, and V-8 vegetable juice. The V-8 vegetable juice is manufactured at a separate plant located across the street from the main plant. Hazardous wastes produced on-site include: mineral spirits still bottoms (D001), side stripe rust inhibitor (D001) and thinner waste (D001). Other wastes which are generated occasionally include: methyl ethyl ketone (F005), D & I sump pit sludge (D001) and waste compound (D001). At the time of the inspection, Campbell's was operating as a small quantity generator of hazardous waste and a burner of waste oil.

During the inspection, the following violations of Ohio's hazardous waste rules were observed and noted:

1. **Ohio Administrative Code (OAC) Rule 3745-65-33** Campbell's does not test all required spill control, decontamination, fire, and communications equipment in the main plant on a weekly basis.

   Campbell's currently tests emergency equipment on a monthly basis. Emergency equipment in hazardous waste management areas must be tested weekly, with logs maintained in accordance with OAC Rule 3745-65-33(B). To demonstrate abatement of this violation, Campbell's must begin conducting weekly inspections and submit a copy of one month's inspections to OEPA, NWDO.

Prior to January, 1993, Campbell's ignitable wastes were poured onto a coal pile located on the grounds of the main plant and burned in a boiler for energy recovery. This waste was primarily D001 hazardous waste mineral spirits, although some enamels were also burned. This activity lasted from at least September, 1991 through January, 1993 (according to records kept at the facility's boiler house), although you stated during the Agency's interview that the practice of burning waste solvents in the boiler had occurred for "many years".

As a result of placing hazardous waste solvents into a coal pile prior to burning in an on-site boiler, Campbell's is in violation of the following:

2. **Ohio Revised Code (ORC) 3734.02(F)** Prior to January, 1993, Campbell's stored and treated ignitable hazardous wastes in a waste pile prior to burning in an on-site boiler without a hazardous waste installation and operation permit or a permit by rule, in violation of ORC section 3734.02(E)(F). Between twenty-two (22) and one hundred (100) gallons per month were poured on the pile and burned.

   Campbell's must obtain samples from beneath the coal pile where solvent was previously poured and from the area beneath the coal pile which was not impacted by this activity. If the pouring of solvents on the coal pile has impacted the underlying soil, closure of this area in accordance with OAC Rules 3745-66-11 through 3745-66-16 will be necessary. Campbell's compliance with respect to the closure requirements will be further evaluated after the analytical results are submitted to OEPA, NWDO.

Please be advised that failure to comply with applicable hazardous waste rules may be cause for enforcement action by this Agency pursuant to chapter 3734 of the Ohio Revised Code.

Please respond, in writing, to this Notice of Violation (NOV) within ten (10) days. Your response must include all actions and timetables necessary to demonstrate compliance.

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

A copy of the completed inspection form is enclosed for your review. If you have any questions, feel free to contact me.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/dlh

Enclosures

pc: Laurie Stevenson, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
A & C Representative
NWDO File

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

DMWM - HW

173

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

FINAL

REPORT OF

PHASE II ENVIRONMENTAL SITE ASSESSMENT

CAMPBELL SOUP PLANT

NAPOLEON, OHIO

FOR

CAMPBELL SOUP COMPANY

Prepared by:

Law Engineering, Inc.
Cincinnati, Ohio

November 29, 1994

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

RECEIVED
DEC 5 1994
OHIO E.P.A.
N.W.D.O.

November 29, 1994

Campbell Soup Company
Campbell Place
Camden, New Jersey 08103-1799

(724.94.138.01)

Attention: Dr. Osman M. Aly
Director of Environmental Affairs
Campbell Soup Company

We are pleased to submit our "Final Phase II Environmental Site Assessment, Campbell Soup Plant, Napoleon, Ohio for Campbell Soup Company." The purpose of our assessment was to determine if the pouring of solvents on the coal pile has impacted the underlying soil. Based on our assessment the soils beneath the coal pile do not appear to be impacted by the target solvent compounds.

We appreciate the opportunity to work with you on this project. Please call us if you have any questions or if we may be of further service.

Respectfully submitted,

LAW ENGINEERING, INC.

James M. DeLano
Project Engineer

LAW/CRANDALL, INC.

Daniel T. Elliott, R.G. 4129
Principal Geologist
Remediation Services Manager

(3 copies submitted)

LAW ENGINEERING, INC.
7300 TURFWAY ROAD, SUITE 250 • FLORENCE, KY 41042-1338
P. O. BOX 75204 • CINCINNATI, OH 45275
(606) 371-2960 • FAX (606) 371-2971
ONE OF THE LAW COMPANIES

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

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Appendix C. Drilling Procedures
Appendix D. Health and Safety Plan

EXECUTIVE SUMMARY

Campbell Soup Company has engaged Law Engineering, Inc., an Ohio Certified Corporation (Certificate No. 95-522; expiration date 6/30/95) to perform a Phase II Environmental Site Assessment of the coal stock pile at the Campbell Soup Plant in Napoleon, Ohio. The coal stock pile consists of about one acre of land used for the boiler coal supply. The surrounding properties are generally industrial and agricultural.

Five hand auger borings were drilled in the coal stock pile area on the southeast side of the plant boiler complex. Soil samples were collected at depths of one feet and 4.5 feet below the coal/clay interface. Semivolatile organic compounds and volatile organic compounds, with the exception of acetone, were not detected in the borings. Acetone was present in low concentrations in all the borings, however, based on the low concentrations detected, the acetone is considered to be a laboratory contaminant.

Based on our subsurface assessment, it does not appear that the pouring of spent solvents of the coal stock pile has impacted the underlying soils. The comparison of the material Safety and Data Sheets for the solvents poured on the coal pile and the laboratory test results does not indicate the presence of any of these target compounds.

1.0 INTRODUCTION

Law Engineering, Inc., an Ohio Certified Corporation (Certificate No. 95-522; expiration date 6/30/95) has performed a subsurface assessment of the coal stock pile at the Campbell Soup Plant in Napoleon, Ohio (Fig 1, Location Map). Our services were performed in general accordance with our proposal No. CIN.94.671, dated May 25, 1994 and subsequent telephone conversations with Dr. Osman M. Aly of Campbell Soup Company. Our services were authorized by Mr. D.B. Thompson of Campbell Soup Company on June 23, 1994, according to your amended Purchase Order No. 004-94170.

2.0 PURPOSE, SCOPE, AND REPORT FORMAT

2.1 PURPOSE

The purpose of the limited subsurface assessment was to determine if the pouring of spent solvents on the boiler coal supply has impacted the underlying soils.

2.2 SCOPE OF SERVICES

Our scope of services are being performed in response to a Notice of Violation presented to Campbell Soup Company by the Ohio Environmental Protection Agency (EPA) dated April 26, 1994 and the subsequent letters dated June 16, 1994 and September 23, 1994. Our services included the hand augering five, five-feet-deep borings at the coal stock pile, and the collections and chemical analyses of 10 soil samples. Four borings were located in known areas where solvents historically were poured and one boring was located where no solvents were poured. The boring located in the area where no solvents were poured will be used as a background comparison for the samples obtained from the borings where solvents were poured.

3.0 SUBSURFACE ASSESSMENT

On October 11, 1994, James M. DeLano, an engineer from our Cincinnati Ohio office, hand augured the five borings and collected the undisturbed soil samples at the coal stock pile area. Figure 2, Boring Location Map, shows the approximate locations of the borings. The borings were located using a 100-foot tape and compass from the corner of the boiler building and other known landmarks. The five borings are designated AB-1 to AB-5. AB-1 was augured in the area where no solvents were historically poured. AB-2 to AB-5 were drilled in the area where solvents were known to be poured. The materials encountered in these borings were logged using the Unified Soil Classification System. Appendix A. Boring Logs, comprises the boring logs.

A backhoe was used to excavate through the coal and to expose native material. Soil samples were then collected at a depth of one foot and 4.5 feet below the coal/soil interface. The coal/soil interface was designated as the elevation where coal particles were no longer observed to be present in clay. The thickness of the intermixed coal and clay were varied from 6 to 12 inches. The individual Boring Logs (Appendix A) contain the thickness of this layer in each auger boring. For the purpose of this assessment, the beginning of the olive-gray colored clay was designated as the "zero" reference for the sample depth. The Boring Logs indicate the depths from the coal surface where the samples were obtained. The samples were collected in clean brass sleeves contained in a bore barrel sampler. After the sample is retrieved, the ends of the brass sleeves were covered with Teflon tape and capped with a plastic cap. The samples were numbered, labeled, and placed in a chilled ice chest for transport to an Ohio certified laboratory for analyses. Between taking each sample, the sampler was decontaminated with Alconox and rinsed in tap water and two separate rinses. After the samples were collected, the borings were backfilled with sand.

3.1 FIELD OBSERVATIONS

Our field observations indicate that the native material consists of an olive/gray silty clay trending to a mottled brown and gray silty clay. Water was encountered in borings AB-3 to AB-5. In auger boring AB-5, groundwater was encountered at a depth of 6 feet below the coal surface during augering. Water was present in the bottom of auger borings AB-3 and AB-4. The amount present was 2 inches in auger borings AB-3 and 3 inches auger in AB-4. About 6 inches of water was present in auger boring AB-5. The amount of water present in the auger borings indicates the amount measured in the bottom of the hole. The water encountered in the borings is being interpreted as run-off present at the soil/coal interface. This water is being interpreted an not being associated with the regional groundwater in the vicinity of the site.

Before drilling began, an organic vapor analyzer (OVA) had been calibrated to 1000 ppm with a methane standard. Portions of the auger cuttings were placed in sealable bags and allowed to volatilize prior to the screening. OVA screening were performed on auger cuttings from the borings at a depth of one feet below the soil/coal interface. OVA readings on the samples ranged from 0 to 5 meter deflection units (mdus).

3.2 LABORATORY RESULTS

The soil samples were transferred to Environmental Chemical Corporation in Cincinnati, Ohio, a hazardous materials testing laboratory, under appropriate chain-of-custody and protocol. Appendix B, Analytical Laboratory Results, contains the laboratory reports and QA/QC documents. The soil samples were analyzed for volatile organics by EPA Method 8240 and semi-volatile organics by EPA method 8270. Laboratory analysis of the soil samples did not detect the presence of semi-volatile organic compounds. No volatile organic compounds were detected with the exception of low concentrations of acetone. The acetone was detected in all borings, including the background boring, with the concentrations ranging from 15.8 to 110 micrograms/kilogram (ug/kg). The detected acetone is considered a laboratory contaminant.

4.0 GEOLOGY AND HYDROGEOLOGY

The geology and hydrogeology of the site was assessed using the following information:

- Soil Survey of Henry County, Ohio, U.S. Department of Agriculture Soil Conservation Service, issued November, 1974.
- Geologic Map of Ohio, Ohio Department of Natural Resources, dated 1981.
- U.S. Geologic Survey (USGS) Topographic Map, Napoleon East, Ohio quadrangle, dated 1960, photorevised 1971 and photoinspected 1977.
- U.S. Geologic Survey (USGS) Topographic Map, Napoleon West, Ohio quadrangle, dated 1956, photorevised 1971.
- Top of Rock Map of Henry County, Ohio, Ohio Department of Natural Resources Division of Geological Survey, dated February 1988.
- Drift Thickness Map of Henry County, Ohio, Ohio Department of Natural Resources Division of Geological Survey, dated February 1988.
- Ground Water Resources Map of Henry County, Ohio, Ohio Department of Natural Resources Division of Water Resources , dated 1981.

4.1 REGIONAL GEOLOGY

The geology at the site is dominated by the Maumee River. The area of the property over geologic time has been subject to two periods of glacian. The glacial drift (glacial till) underlying the site is about 50 feet in thickness in the vicinity of the site. Underlying the glacial drift is a Devonian age bedrock formation known as the Ohio Shale formation.

4.2 REGIONAL GROUND WATER

Ground water beneath the site occurs in the thin layers of sand and gravel interbedded in the silty glacial clays. Well logs obtained from the Ohio Department of Natural Resources

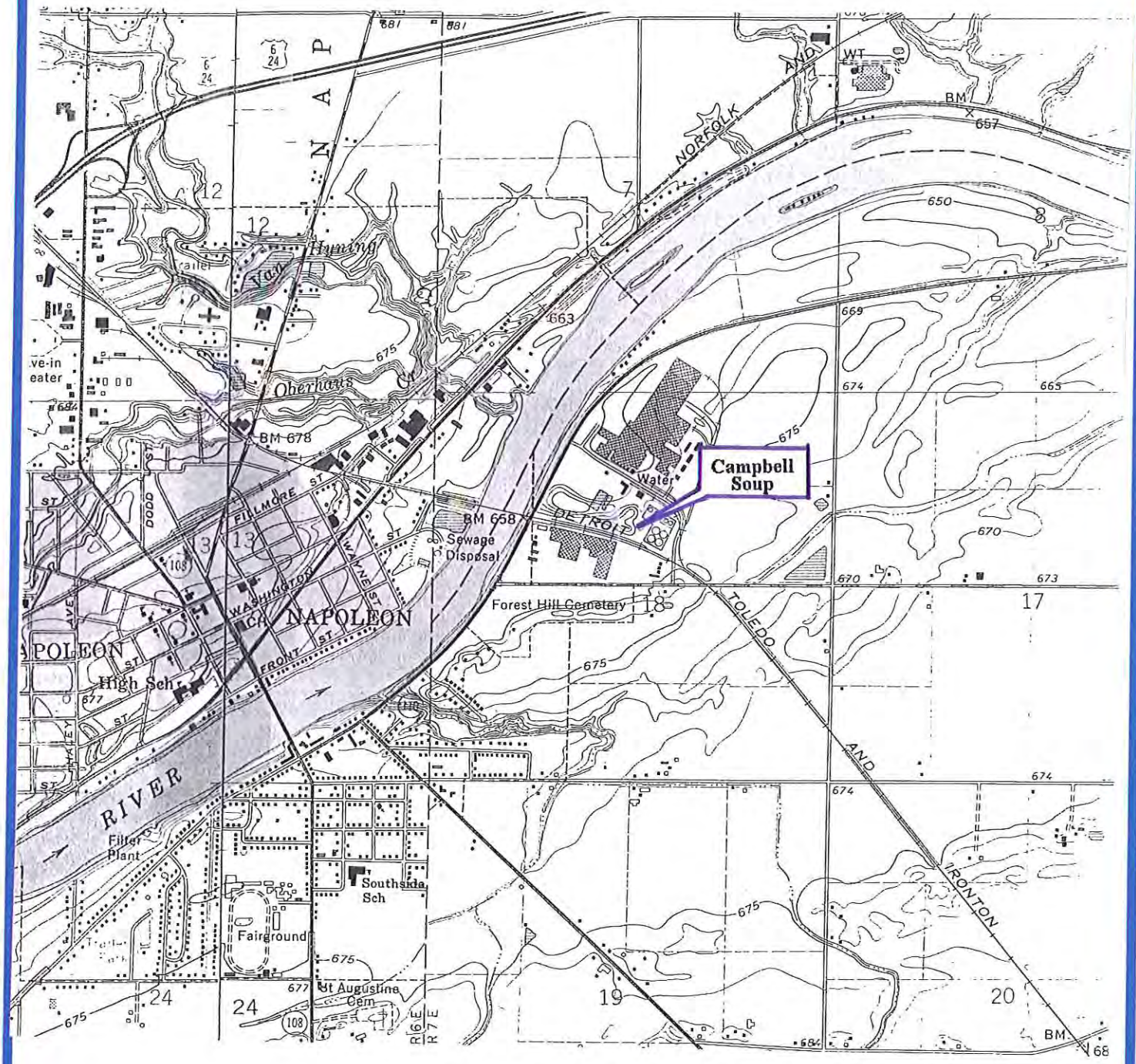
indicate static water level depths ranging from 20 to 30 feet within about 3/4 mile radius of the site. Based on a review of this information, the ground water gradient in the vicinity of the site is probably to the west. Typically the ground water in the Napoleon area is used for single family residential uses and for irrigation purposes. The municipal water supply for the City of Napoleon is from the Maumee River.

4.3 SITE-SPECIFIC SOILS CONDITION

In general, the soils in the area of the coal stock pile consist of clay soils. The soils varied from an olive-gray silty clay trending to a light brown silty clay with pebbles and limestone fragments. These soil conditions were encountered in all the borings. Crushed coal was present to a depth of about 2 to 3 feet across the site. Underlying the coal, there was approximately 6 to 12 inches of an intermixed coal and clay layer. Underlying this layer, the olive-gray colored clay was encountered. Below the olive-gray clay, a light brown silty clay with pebbles and limestone fragments, was encountered at the bottom of the borings.

5.0 CONCLUSIONS AND RECOMMENDATIONS

A review of the Material Safety and Data Sheets for the solvents historically poured on the coal pile indicates the presence of the following compounds: Petroleum Naphtha, 2-Butoxy Ethanol, Cyclohexanol and Isobutyl Alcohol. Laboratory testing for the presences of volatile organic compounds and semivolatile organic compounds did not reveal the presence of any of the target compounds. Based on these results, we do not believe the pouring of solvents on the boiler coal supply has impacted underlying soils. Acetone was present in low concentrations in all the borings, however, based on the low concentrations detected, the acetone is considered to be a laboratory contaminant. The result of our subsurface assessment indicate that no further assessment is warranted at this time.



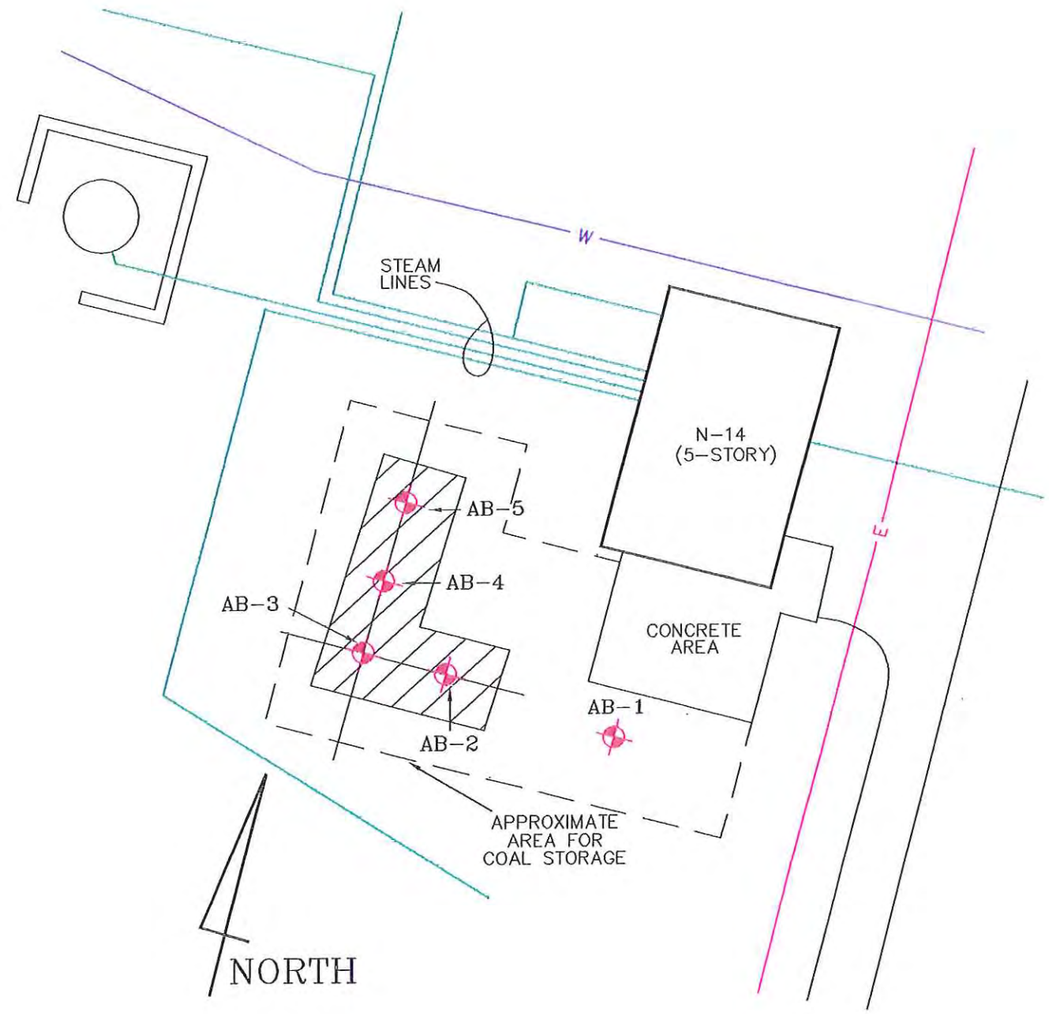
SITE LOCATION MAP

Scale 1:24000

SOURCE: USGS Topographic Maps; Napleon East and Napoleon West Quadrangles

NORTH

Campbell Soup Company Maumee Avenue Napoleon, Ohio	LAW Engineering and Environmental Services	FIGURE 1 724.94.138.01 November 3, 1994



LEGEND

AREA WHERE SOLVENTS WERE POURED

HAND AUGER BORING LOCATIONS

LAW ENGINEERING AND ENVIRONMENTAL SERVICES
CINCINNATI, OHIO

NO.	DESCRIPTION	DATE

REVISIONS

FIGURE 2
BORING LOCATION PLAN

COAL STORAGE AREA
CAMPBELLS SOUP COMPANY
NAPOLEON, OHIO

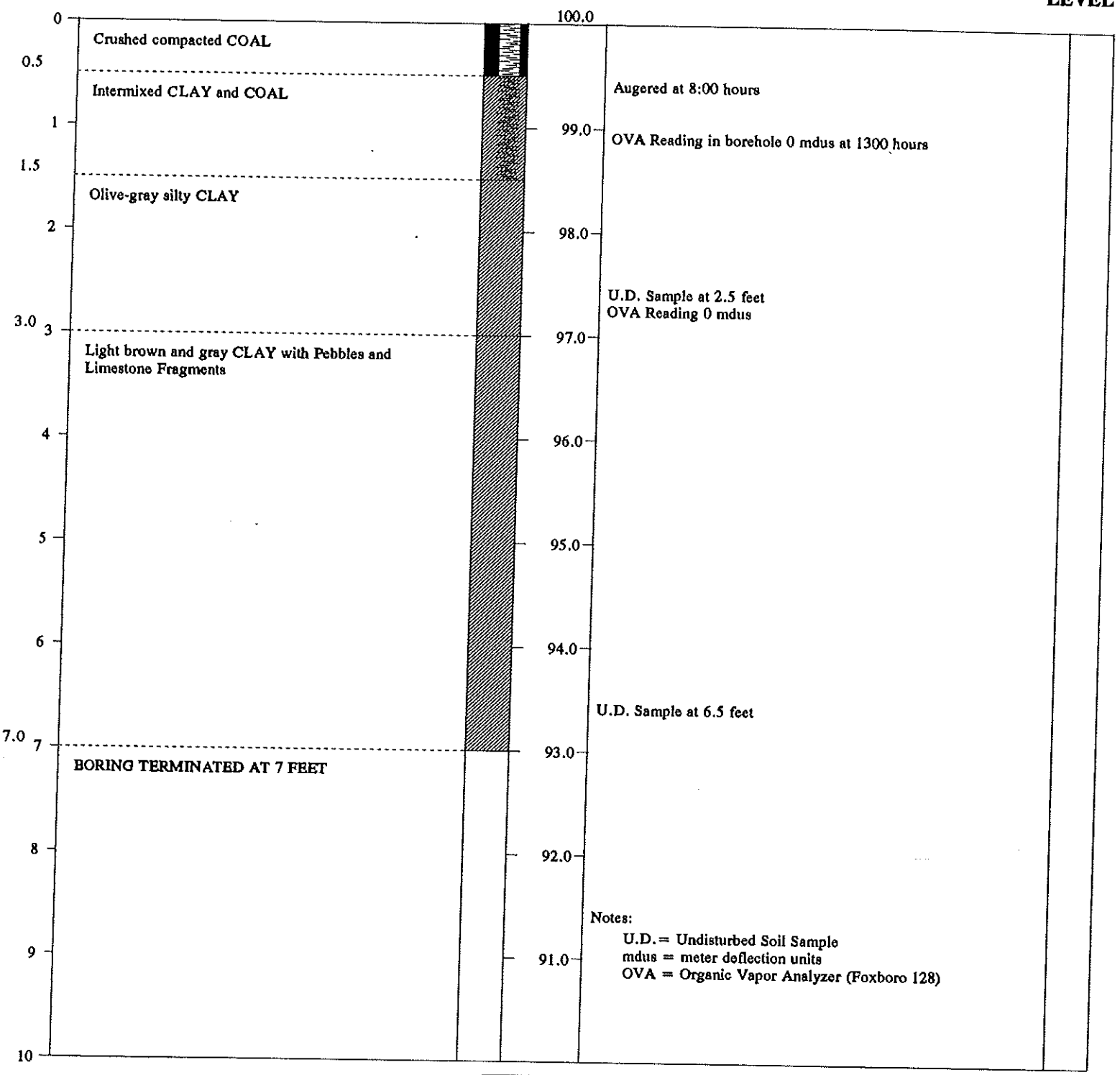
LAW PROJECT NO.
724.94.138.01

DRAWN BY: CMF
SHEET NO.: OF
CHECKED BY:
SCALE: 1" = 60'
APPROVED BY:
DATE: AUGUST 24, 1994

DRAWING NO.
72494138.01

LAW ENGINEERING, INC

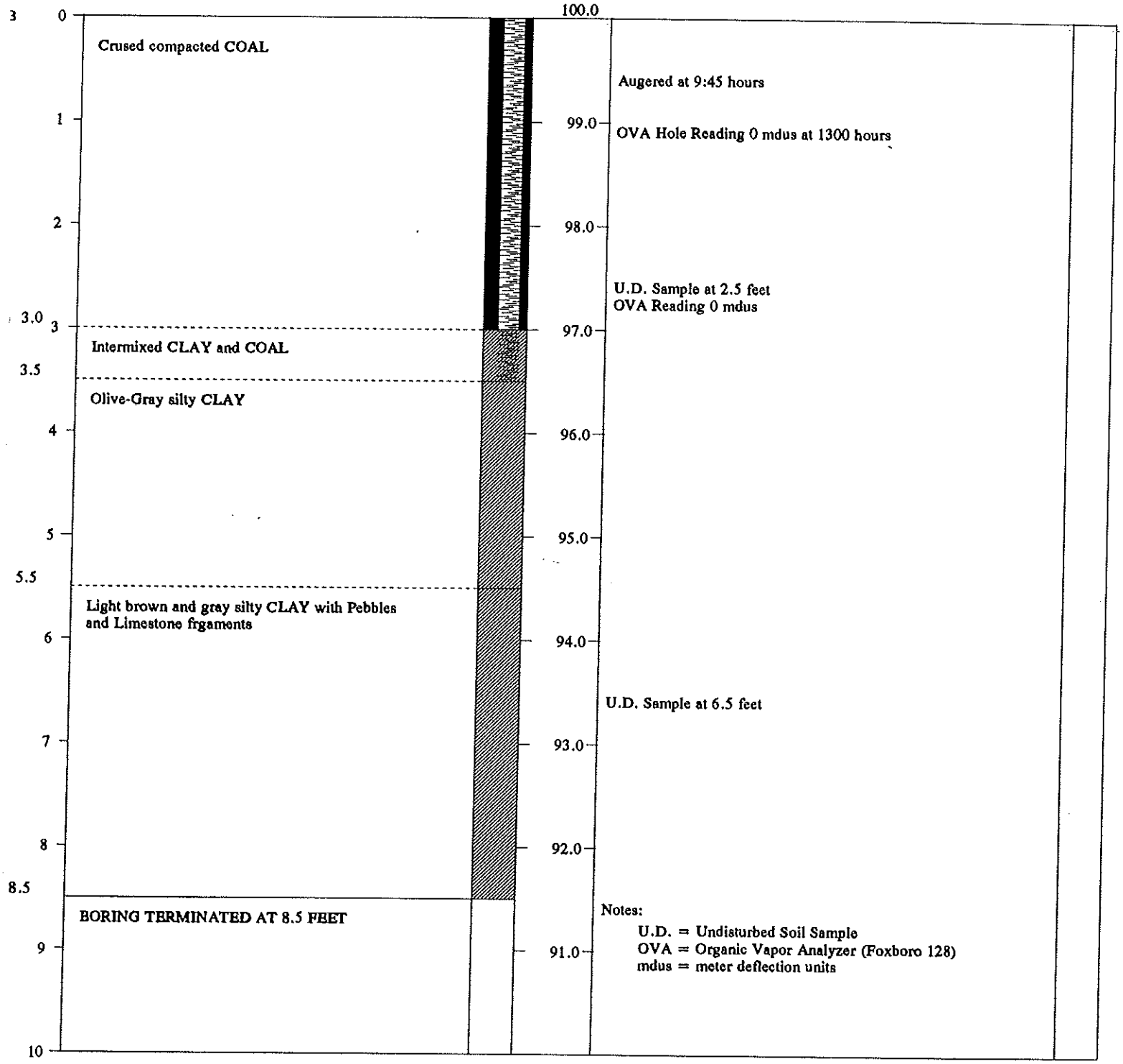
APPENDIX A
BORING LOGS



HAND AUGER RECORD

POINT NUMBER	AB-1
DATE	October 11, 1994
PROJECT NUMBER	724.94.138.01
PROJECT	Campbell Soup Company
PAGE 1 OF 1	

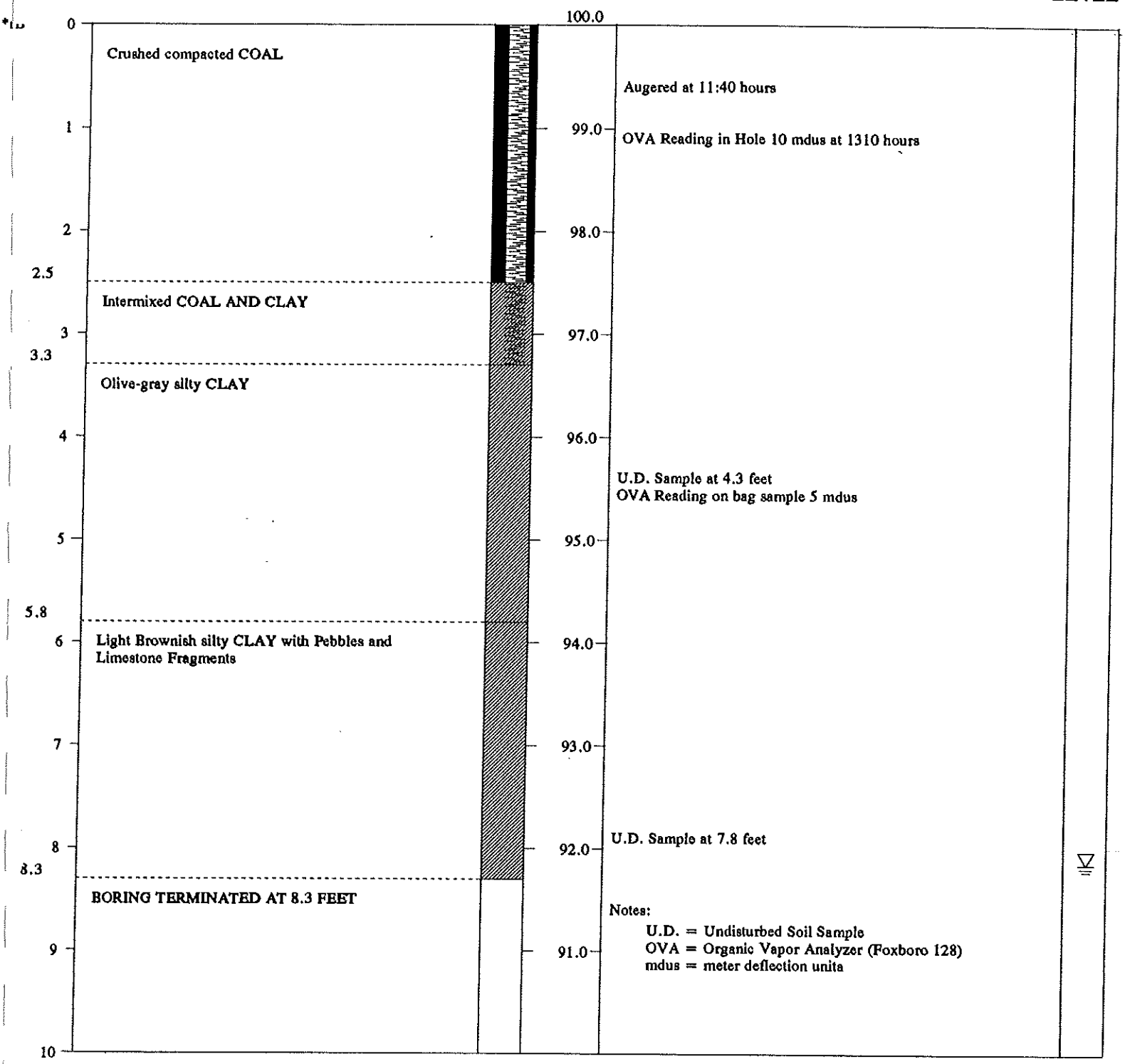
LAW ENGINEERING



HAND AUGER RECORD

POINT NUMBER	AB-2
DATE	October 11, 1994
PROJECT NUMBER	724.94.138.01
PROJECT	Campbell Soup Company
PAGE 1 OF 1	

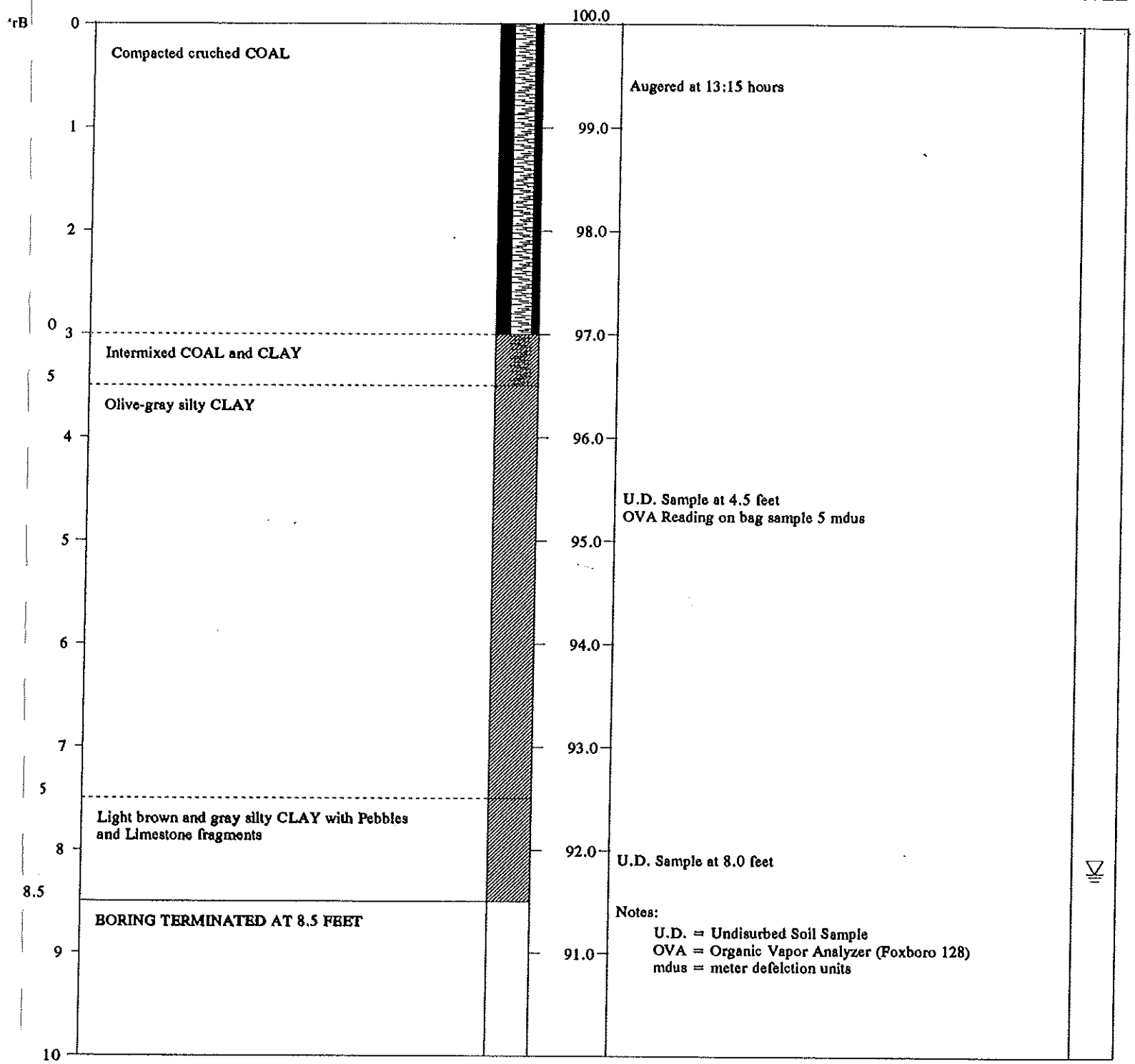
LAW ENGINEERING



HAND AUGER RECORD

POINT NUMBER	AB-3
DATE	October 11, 1994
PROJECT NUMBER	724.94.138.01
PROJECT	Campbell Soup Company
PAGE 1 OF 1	

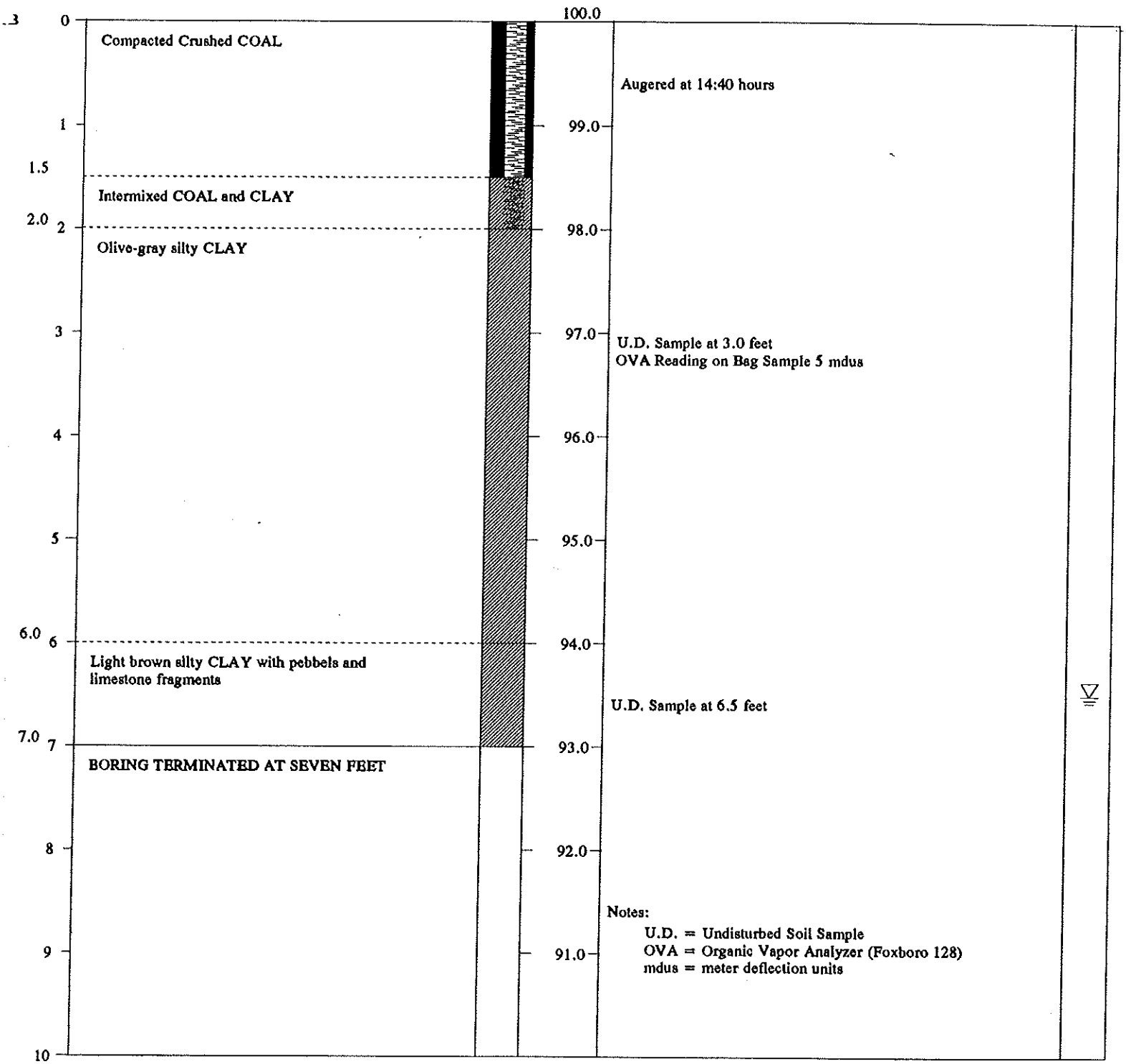
LAW ENGINEERING



HAND AUGER RECORD

POINT NUMBER	AB-4
DATE	October 11, 1994
PROJECT NUMBER	724.94.138.01
PROJECT	Campbell Soup Company
PAGE 1 OF 1	

LAW ENGINEERING



HAND AUGER RECORD

POINT NUMBER	AB-5
DATE	October 11, 1994
PROJECT NUMBER	724.94.138.01
PROJECT	Campbell Soup Company
PAGE 1 OF 1	

LAW ENGINEERING

APPENDIX B

LABORATORY TEST RESULTS AND QA/QC DOCUMENTS

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-1-1

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: **VOLATILE EPA 8240**

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-001
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 71

Date Analyzed: 10/19/94
Preparation Batch: VS1019-2
Instrument Batch: V1019-2B

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	74-87-3	Chloromethane	8.1	U	
2.	74-83-9	Bromomethane	3.9	U	
3.	75-01-4	Vinyl Chloride	4.2	U	
4.	75-00-3	Chloroethane	1.0	U	
5.	75-09-2	Methylene Chloride	3.4	U	
6.	67-64-1	Acetone	7.1	92.3	
7.	75-15-0	Carbon Disulfide	0.49	U	
8.	75-35-4	1,1-Dichloroethene	2.4	U	
9.	75-34-3	1,1-Dichloroethane	1.7	U	
10.	540-59-0	1,2-Dichloroethene	2.1	U	
11.	67-66-3	Chloroform	0.93	U	
12.	107-06-2	1,2-Dichloroethane	1.9	U	
13.	78-93-3	2-Butanone	5.9	U	
14.	71-55-6	1,1,1-Trichloroethane	1.8	U	
15.	56-23-5	Carbon Tetrachloride	1.1	U	
16.	75-27-4	Bromodichloromethane	0.84	U	
17.	78-87-5	1,2-Dichloropropane	3.1	U	
18.	10061-01-5	cis-1,3-Dichloropropene	3.4	U	
19.	79-01-6	Trichloroethene	2.0	U	
20.	124-48-1	Dibromochloromethane	7.4	U	
21.	79-00-5	1,1,2-Trichloroethane	0.47	U	
22.	71-43-2	Benzene	1.9	U	
23.	10061-02-6	trans-1,3-Dichloropropene	4.7	U	
24.	75-25-2	Bromoform	1.4	U	
25.	108-10-1	4-Methyl-2-Pentanone	3.8	U	
26.	591-78-6	2-Hexanone	5.1	U	
27.	127-18-4	Tetrachloroethene	1.9	U	
28.	79-34-5	1,1,2,2-Tetrachloroethane	2.2	U	
29.	108-88-3	Toluene	1.2	U	
30.	108-90-7	Chlorobenzene	1.5	U	
31.	100-41-4	Ethylbenzene	0.42	U	
32.	100-42-5	Styrene	2.0	U	
33.	1330-20-7	Xylene (total)	0.35	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
34.	1,2-Dichloroethane-d4	106	70-121	50.0
35.	Toluene-d8	109	81-117	50.0
36.	Bromofluorobenzene	97	74-121	50.0

U Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-1-2

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: VOLATILE EPA 8240

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-002
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 71

Date Analyzed: 10/19/94
Preparation Batch: VS1019-2
Instrument Batch: V1019-2B

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	74-87-3	Chloromethane	8.1	U	
2.	74-83-9	Bromomethane	3.9	U	
3.	75-01-4	Vinyl Chloride	4.2	U	
4.	75-00-3	Chloroethane	1.0	U	
5.	75-09-2	Methylene Chloride	3.4	U	
6.	67-64-1	Acetone	7.1	U	
7.	75-15-0	Carbon Disulfide	0.49	U	
8.	75-35-4	1,1-Dichloroethene	2.4	U	
9.	75-34-3	1,1-Dichloroethane	1.7	U	
10.	540-59-0	1,2-Dichloroethene	2.1	U	
11.	67-66-3	Chloroform	0.93	U	
12.	107-06-2	1,2-Dichloroethane	1.9	U	
13.	78-93-3	2-Butanone	5.9	U	
14.	71-55-6	1,1,1-Trichloroethane	1.8	U	
15.	56-23-5	Carbon Tetrachloride	1.1	U	
16.	75-27-4	Bromodichloromethane	0.84	U	
17.	78-87-5	1,2-Dichloropropane	3.1	U	
18.	10061-01-5	cis-1,3-Dichloropropene	3.4	U	
19.	79-01-6	Trichloroethene	2.0	U	
20.	124-48-1	Dibromochloromethane	7.4	U	
21.	79-00-5	1,1,2-Trichloroethane	0.47	U	
22.	71-43-2	Benzene	1.9	U	
23.	10061-02-6	trans-1,3-Dichloropropene	4.7	U	
24.	75-25-2	Bromoform	1.4	U	
25.	108-10-1	4-Methyl-2-Pentanone	3.8	U	
26.	591-78-6	2-Hexanone	5.1	U	
27.	127-18-4	Tetrachloroethene	1.9	U	
28.	79-34-5	1,1,2,2-Tetrachloroethane	2.2	U	
29.	108-88-3	Toluene	1.2	U	
30.	108-90-7	Chlorobenzene	1.5	U	
31.	100-41-4	Ethylbenzene	0.42	U	
32.	100-42-5	Styrene	2.0	U	
33.	1330-20-7	Xylene (total)	0.35	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
34.	1,2-Dichloroethane-d4	109	70-121	50.0
35.	Toluene-d8	114	81-117	50.0
36.	Bromofluorobenzene	101	74-121	50.0

U Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-2-1

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: VOLATILE EPA 8240

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-003
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 71

Date Analyzed: 10/19/94
Preparation Batch: VS1019-2
Instrument Batch: V1019-2B

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	74-87-3	Chloromethane	8.1	U	
2.	74-83-9	Bromomethane	3.9	U	
3.	75-01-4	Vinyl Chloride	4.2	U	
4.	75-00-3	Chloroethane	1.0	U	
5.	75-09-2	Methylene Chloride	3.4	U	
6.	67-64-1	Acetone	7.1	83.9	
7.	75-15-0	Carbon Disulfide	0.49	U	
8.	75-35-4	1,1-Dichloroethene	2.4	U	
9.	75-34-3	1,1-Dichloroethane	1.7	U	
10.	540-59-0	1,2-Dichloroethene	2.1	U	
11.	67-66-3	Chloroform	0.93	U	
12.	107-06-2	1,2-Dichloroethane	1.9	U	
13.	78-93-3	2-Butanone	5.9	U	
14.	71-55-6	1,1,1-Trichloroethane	1.8	U	
15.	56-23-5	Carbon Tetrachloride	1.1	U	
16.	75-27-4	Bromodichloromethane	0.84	U	
17.	78-87-5	1,2-Dichloropropane	3.1	U	
18.	10061-01-5	cis-1,3-Dichloropropene	3.4	U	
19.	79-01-6	Trichloroethene	2.0	U	
20.	124-48-1	Dibromochloromethane	7.4	U	
21.	79-00-5	1,1,2-Trichloroethane	0.47	U	
22.	71-43-2	Benzene	1.9	U	
23.	10061-02-6	trans-1,3-Dichloropropene	4.7	U	
24.	75-25-2	Bromoform	1.4	U	
25.	108-10-1	4-Methyl-2-Pentanone	3.8	U	
26.	591-78-6	2-Hexanone	5.1	U	
27.	127-18-4	Tetrachloroethene	1.9	U	
28.	79-34-5	1,1,2,2-Tetrachloroethane	2.2	U	
29.	108-88-3	Toluene	1.2	U	
30.	108-90-7	Chlorobenzene	1.5	U	
31.	100-41-4	Ethylbenzene	0.42	U	
32.	100-42-5	Styrene	2.0	U	
33.	1330-20-7	Xylene (total)	0.35	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
34.	1,2-Dichloroethane-d4	112	70-121	50.0
35.	Toluene-d8	115	81-117	50.0
36.	Bromofluorobenzene	93	74-121	50.0

U Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-2-2

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: VOLATILE EPA 8240

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-004
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 71

Date Analyzed: 10/19/94
Preparation Batch: VS1019-2
Instrument Batch: V1019-2B

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	74-87-3	Chloromethane	8.1	U	
2.	74-83-9	Bromomethane	3.9	U	
3.	75-01-4	Vinyl Chloride	4.2	U	
4.	75-00-3	Chloroethane	1.0	U	
5.	75-09-2	Methylene Chloride	3.4	U	
6.	67-64-1	Acetone	7.1	U	
7.	75-15-0	Carbon Disulfide	0.49	U	
8.	75-35-4	1,1-Dichloroethene	2.4	U	
9.	75-34-3	1,1-Dichloroethane	1.7	U	
10.	540-59-0	1,2-Dichloroethene	2.1	U	
11.	67-66-3	Chloroform	0.93	U	
12.	107-06-2	1,2-Dichloroethane	1.9	U	
13.	78-93-3	2-Butanone	5.9	U	
14.	71-55-6	1,1,1-Trichloroethane	1.8	U	
15.	56-23-5	Carbon Tetrachloride	1.1	U	
16.	75-27-4	Bromodichloromethane	0.84	U	
17.	78-87-5	1,2-Dichloropropane	3.1	U	
18.	10061-01-5	cis-1,3-Dichloropropene	3.4	U	
19.	79-01-6	Trichloroethene	2.0	U	
20.	124-48-1	Dibromochloromethane	7.4	U	
21.	79-00-5	1,1,2-Trichloroethane	0.47	U	
22.	71-43-2	Benzene	1.9	U	
23.	10061-02-6	trans-1,3-Dichloropropene	4.7	U	
24.	75-25-2	Bromoform	1.4	U	
25.	108-10-1	4-Methyl-2-Pentanone	3.8	U	
26.	591-78-6	2-Hexanone	5.1	U	
27.	127-18-4	Tetrachloroethene	1.9	U	
28.	79-34-5	1,1,2,2-Tetrachloroethane	2.2	U	
29.	108-88-3	Toluene	1.2	U	
30.	108-90-7	Chlorobenzene	1.5	U	
31.	100-41-4	Ethylbenzene	0.42	U	
32.	100-42-5	Styrene	2.0	U	
33.	1330-20-7	Xylene (total)	0.35	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
34.	1,2-Dichloroethane-d4	113	70-121	50.0
35.	Toluene-d8	119#	81-117	50.0
36.	Bromofluorobenzene	94	74-121	50.0

U Below Detection Limit
#: Matrix Interference

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-3-1

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: VOLATILE EPA 8240

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-005
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 71

Date Analyzed: 10/19/94
Preparation Batch: VS1019-2
Instrument Batch: V1019-2B

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	74-87-3	Chloromethane	8.1	U	
2.	74-83-9	Bromomethane	3.9	U	
3.	75-01-4	Vinyl Chloride	4.2	U	
4.	75-00-3	Chloroethane	1.0	U	
5.	75-09-2	Methylene Chloride	3.4	U	
6.	67-64-1	Acetone	7.1	110	
7.	75-15-0	Carbon Disulfide	0.49	U	
8.	75-35-4	1,1-Dichloroethene	2.4	U	
9.	75-34-3	1,1-Dichloroethane	1.7	U	
10.	540-59-0	1,2-Dichloroethene	2.1	U	
11.	67-66-3	Chloroform	0.93	U	
12.	107-06-2	1,2-Dichloroethane	1.9	U	
13.	78-93-3	2-Butanone	5.9	U	
14.	71-55-6	1,1,1-Trichloroethane	1.8	U	
15.	56-23-5	Carbon Tetrachloride	1.1	U	
16.	75-27-4	Bromodichloromethane	0.84	U	
17.	78-87-5	1,2-Dichloropropane	3.1	U	
18.	10061-01-5	cis-1,3-Dichloropropene	3.4	U	
19.	79-01-6	Trichloroethene	2.0	U	
20.	124-48-1	Dibromochloromethane	7.4	U	
21.	79-00-5	1,1,2-Trichloroethane	0.47	U	
22.	71-43-2	Benzene	1.9	U	
23.	10061-02-6	trans-1,3-Dichloropropene	4.7	U	
24.	75-25-2	Bromoform	1.4	U	
25.	108-10-1	4-Methyl-2-Pentanone	3.8	U	
26.	591-78-6	2-Hexanone	5.1	U	
27.	127-18-4	Tetrachloroethene	1.9	U	
28.	79-34-5	1,1,2,2-Tetrachloroethane	2.2	U	
29.	108-88-3	Toluene	1.2	U	
30.	108-90-7	Chlorobenzene	1.5	U	
31.	100-41-4	Ethylbenzene	0.42	U	
32.	100-42-5	Styrene	2.0	U	
33.	1330-20-7	Xylene (total)	0.35	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
34.	1,2-Dichloroethane-d4	112	70-121	50.0
35.	Toluene-d8	112	81-117	50.0
36.	Bromofluorobenzene	102	74-121	50.0

J: Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-3-2

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: VOLATILE EPA 8240

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-006
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 71

Date Analyzed: 10/19/94
Preparation Batch: VS1019-2
Instrument Batch: V1019-2B

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	74-87-3	Chloromethane	8.1	U	
2.	74-83-9	Bromomethane	3.9	U	
3.	75-01-4	Vinyl Chloride	4.2	U	
4.	75-00-3	Chloroethane	1.0	U	
5.	75-09-2	Methylene Chloride	3.4	U	
6.	67-64-1	Acetone	7.1	U	
7.	75-15-0	Carbon Disulfide	0.49	U	
8.	75-35-4	1,1-Dichloroethene	2.4	U	
9.	75-34-3	1,1-Dichloroethane	1.7	U	
10.	540-59-0	1,2-Dichloroethene	2.1	U	
11.	67-66-3	Chloroform	0.93	U	
12.	107-06-2	1,2-Dichloroethane	1.9	U	
13.	78-93-3	2-Butanone	5.9	U	
14.	71-55-6	1,1,1-Trichloroethane	1.8	U	
15.	56-23-5	Carbon Tetrachloride	1.1	U	
16.	75-27-4	Bromodichloromethane	0.84	U	
17.	78-87-5	1,2-Dichloropropane	3.1	U	
18.	10061-01-5	cis-1,3-Dichloropropene	3.4	U	
19.	79-01-6	Trichloroethene	2.0	U	
20.	124-48-1	Dibromochloromethane	7.4	U	
21.	79-00-5	1,1,2-Trichloroethane	0.47	U	
22.	71-43-2	Benzene	1.9	U	
23.	10061-02-6	trans-1,3-Dichloropropene	4.7	U	
24.	75-25-2	Bromoform	1.4	U	
25.	108-10-1	4-Methyl-2-Pentanone	3.8	U	
26.	591-78-6	2-Hexanone	5.1	U	
27.	127-18-4	Tetrachloroethene	1.9	U	
28.	79-34-5	1,1,2,2-Tetrachloroethane	2.2	U	
29.	108-88-3	Toluene	1.2	U	
30.	108-90-7	Chlorobenzene	1.5	U	
31.	100-41-4	Ethylbenzene	0.42	U	
32.	100-42-5	Styrene	2.0	U	
33.	1330-20-7	Xylene (total)	0.35	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
34.	1,2-Dichloroethane-d4	120	70-121	50.0
35.	Toluene-d8	118#	81-117	50.0
36.	Bromofluorobenzene	97	74-121	50.0

elow Detection Limit
#: Matrix Interference

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-4-1

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: VOLATILE EPA 8240

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-007
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 72

Date Analyzed: 10/20/94
Preparation Batch: VS1019-2
Instrument Batch: V1020-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	74-87-3	Chloromethane	8.1	U	
2.	74-83-9	Bromomethane	3.9	U	
3.	75-01-4	Vinyl Chloride	4.2	U	
4.	75-00-3	Chloroethane	1.0	U	
5.	75-09-2	Methylene Chloride	3.4	U	
6.	67-64-1	Acetone	7.1	30.3	
7.	75-15-0	Carbon Disulfide	0.49	U	
8.	75-35-4	1,1-Dichloroethene	2.4	U	
9.	75-34-3	1,1-Dichloroethane	1.7	U	
10.	540-59-0	1,2-Dichloroethene	2.1	U	
11.	67-66-3	Chloroform	0.93	U	
12.	107-06-2	1,2-Dichloroethane	1.9	U	
13.	78-93-3	2-Butanone	5.9	U	
14.	71-55-6	1,1,1-Trichloroethane	1.8	U	
15.	56-23-5	Carbon Tetrachloride	1.1	U	
16.	75-27-4	Bromodichloromethane	0.84	U	
17.	78-87-5	1,2-Dichloropropane	3.1	U	
18.	10061-01-5	cis-1,3-Dichloropropene	3.4	U	
19.	79-01-6	Trichloroethene	2.0	U	
20.	124-48-1	Dibromochloromethane	7.4	U	
21.	79-00-5	1,1,2-Trichloroethane	0.47	U	
22.	71-43-2	Benzene	1.9	U	
23.	10061-02-6	trans-1,3-Dichloropropene	4.7	U	
24.	75-25-2	Bromoform	1.4	U	
25.	108-10-1	4-Methyl-2-Pentanone	3.8	U	
26.	591-78-6	2-Hexanone	5.1	U	
27.	127-18-4	Tetrachloroethene	1.9	U	
28.	79-34-5	1,1,2,2-Tetrachloroethane	2.2	U	
29.	108-88-3	Toluene	1.2	U	
30.	108-90-7	Chlorobenzene	1.5	U	
31.	100-41-4	Ethylbenzene	0.42	U	
32.	100-42-5	Styrene	2.0	U	
33.	1330-20-7	Xylene (total)	0.35	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
34.	1,2-Dichloroethane-d4	92	70-121	50.0
35.	Toluene-d8	110	81-117	50.0
36.	Bromofluorobenzene	97	74-121	50.0

U: Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-4-2

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: VOLATILE EPA 8240

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-008
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 72

Date Analyzed: 10/20/94
Preparation Batch: VS1019-2
Instrument Batch: V1020-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	74-87-3	Chloromethane	8.1	U	
2.	74-83-9	Bromomethane	3.9	U	
3.	75-01-4	Vinyl Chloride	4.2	U	
4.	75-00-3	Chloroethane	1.0	U	
5.	75-09-2	Methylene Chloride	3.4	U	
6.	67-64-1	Acetone	7.1	15.8	
7.	75-15-0	Carbon Disulfide	0.49	U	
8.	75-35-4	1,1-Dichloroethene	2.4	U	
9.	75-34-3	1,1-Dichloroethane	1.7	U	
10.	540-59-0	1,2-Dichloroethene	2.1	U	
11.	67-66-3	Chloroform	0.93	U	
12.	107-06-2	1,2-Dichloroethane	1.9	U	
13.	78-93-3	2-Butanone	5.9	U	
14.	71-55-6	1,1,1-Trichloroethane	1.8	U	
15.	56-23-5	Carbon Tetrachloride	1.1	U	
16.	75-27-4	Bromodichloromethane	0.84	U	
17.	78-87-5	1,2-Dichloropropane	3.1	U	
18.	10061-01-5	cis-1,3-Dichloropropene	3.4	U	
19.	79-01-6	Trichloroethene	2.0	U	
20.	124-48-1	Dibromochloromethane	7.4	U	
21.	79-00-5	1,1,2-Trichloroethane	0.47	U	
22.	71-43-2	Benzene	1.9	U	
23.	10061-02-6	trans-1,3-Dichloropropene	4.7	U	
24.	75-25-2	Bromoform	1.4	U	
25.	108-10-1	4-Methyl-2-Pentanone	3.8	U	
26.	591-78-6	2-Hexanone	5.1	U	
27.	127-18-4	Tetrachloroethene	1.9	U	
28.	79-34-5	1,1,2,2-Tetrachloroethane	2.2	U	
29.	108-88-3	Toluene	1.2	U	
30.	108-90-7	Chlorobenzene	1.5	U	
31.	100-41-4	Ethylbenzene	0.42	U	
32.	100-42-5	Styrene	2.0	U	
33.	1330-20-7	Xylene (total)	0.35	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
34.	1,2-Dichloroethane-d4	93	70-121	50.0
35.	Toluene-d8	114	81-117	50.0
36.	Bromofluorobenzene	94	74-121	50.0

U Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-5-1

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: VOLATILE EPA 8240

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-009
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 73

Date Analyzed: 10/20/94
Preparation Batch: VS1019-2
Instrument Batch: V1020-2B

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	74-87-3	Chloromethane	8.1	U	
2.	74-83-9	Bromomethane	3.9	U	
3.	75-01-4	Vinyl Chloride	4.2	U	
4.	75-00-3	Chloroethane	1.0	U	
5.	75-09-2	Methylene Chloride	3.4	U	
6.	67-64-1	Acetone	7.1	60.3	
7.	75-15-0	Carbon Disulfide	0.49	U	
8.	75-35-4	1,1-Dichloroethene	2.4	U	
9.	75-34-3	1,1-Dichloroethane	1.7	U	
10.	540-59-0	1,2-Dichloroethene	2.1	U	
11.	67-66-3	Chloroform	0.93	U	
12.	107-06-2	1,2-Dichloroethane	1.9	U	
13.	78-93-3	2-Butanone	5.9	U	
14.	71-55-6	1,1,1-Trichloroethane	1.8	U	
15.	56-23-5	Carbon Tetrachloride	1.1	U	
16.	75-27-4	Bromodichloromethane	0.84	U	
17.	78-87-5	1,2-Dichloropropane	3.1	U	
18.	10061-01-5	cis-1,3-Dichloropropene	3.4	U	
19.	79-01-6	Trichloroethene	2.0	U	
20.	124-48-1	Dibromochloromethane	7.4	U	
21.	79-00-5	1,1,2-Trichloroethane	0.47	U	
22.	71-43-2	Benzene	1.9	U	
23.	10061-02-6	trans-1,3-Dichloropropene	4.7	U	
24.	75-25-2	Bromoform	1.4	U	
25.	108-10-1	4-Methyl-2-Pentanone	3.8	U	
26.	591-78-6	2-Hexanone	5.1	U	
27.	127-18-4	Tetrachloroethene	1.9	U	
28.	79-34-5	1,1,2,2-Tetrachloroethane	2.2	U	
29.	108-88-3	Toluene	1.2	U	
30.	108-90-7	Chlorobenzene	1.5	U	
31.	100-41-4	Ethylbenzene	0.42	U	
32.	100-42-5	Styrene	2.0	U	
33.	1330-20-7	Xylene (total)	0.35	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
34.	1,2-Dichloroethane-d4	87	70-121	50.0
35.	Toluene-d8	119#	81-117	50.0
36.	Bromofluorobenzene	90	74-121	50.0

: Below Detection Limit
#: Matrix Interference

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-5-2

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: VOLATILE EPA 8240

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-010
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 73

Date Analyzed: 10/21/94
Preparation Batch: VS1019-2
Instrument Batch: V1020-2B

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	74-87-3	Chloromethane	8.1	U	
2.	74-83-9	Bromomethane	3.9	U	
3.	75-01-4	Vinyl Chloride	4.2	U	
4.	75-00-3	Chloroethane	1.0	U	
5.	75-09-2	Methylene Chloride	3.4	U	
6.	67-64-1	Acetone	7.1	70.9	
7.	75-15-0	Carbon Disulfide	0.49	U	
8.	75-35-4	1,1-Dichloroethene	2.4	U	
9.	75-34-3	1,1-Dichloroethane	1.7	U	
10.	540-59-0	1,2-Dichloroethene	2.1	U	
11.	67-66-3	Chloroform	0.93	U	
12.	107-06-2	1,2-Dichloroethane	1.9	U	
13.	78-93-3	2-Butanone	5.9	U	
14.	71-55-6	1,1,1-Trichloroethane	1.8	U	
15.	56-23-5	Carbon Tetrachloride	1.1	U	
16.	75-27-4	Bromodichloromethane	0.84	U	
17.	78-87-5	1,2-Dichloropropane	3.1	U	
18.	10061-01-5	cis-1,3-Dichloropropene	3.4	U	
19.	79-01-6	Trichloroethene	2.0	U	
20.	124-48-1	Dibromochloromethane	7.4	U	
21.	79-00-5	1,1,2-Trichloroethane	0.47	U	
22.	71-43-2	Benzene	1.9	U	
23.	10061-02-6	trans-1,3-Dichloropropene	4.7	U	
24.	75-25-2	Bromoform	1.4	U	
25.	108-10-1	4-Methyl-2-Pentanone	3.8	U	
26.	591-78-6	2-Hexanone	5.1	U	
27.	127-18-4	Tetrachloroethene	1.9	U	
28.	79-34-5	1,1,2,2-Tetrachloroethane	2.2	U	
29.	108-88-3	Toluene	1.2	U	
30.	108-90-7	Chlorobenzene	1.5	U	
31.	100-41-4	Ethylbenzene	0.42	U	
32.	100-42-5	Styrene	2.0	U	
33.	1330-20-7	Xylene (total)	0.35	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
34.	1,2-Dichloroethane-d4	96	70-121	50.0
35.	Toluene-d8	120#	81-117	50.0
36.	Bromofluorobenzene	81	74-121	50.0

Below Detection Limit
#: Matrix Interference

ENVIRONMENTAL CHEMICAL CORPORATION

QUALITY CONTROL

SAMPLE NUMBER

N/A

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: **VOLATILE EPA 8240**

Matrix:(soil/water) Soil
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: BLANK
Date Sampled: N/A
Date Received: N/A

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 70

Date Analyzed: 10/19/94
Preparation Batch: VS1019-2
Instrument Batch: V1019-2B

BLANK

CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG

ALL COMPOUNDS ARE BELOW DETECTION LIMIT.

SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
1,2-Dichloroethane-d4	100	70-121	50.0
Toluene-d8	103	81-117	50.0
Bromofluorobenzene	102	74-121	50.0

ENVIRONMENTAL CHEMICAL C O R P O R A T I O N

QUALITY CONTROL

SAMPLE NUMBER

AB-1-1

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: **VOLATILE EPA 8240**

Matrix:(soil/water) SOIL
Sample Weight: 5.0 g
Extract Volume: 5.0 mL

Lab Sample I.D.: 19963-001 Duplicate
Date Sampled: 10/11/94
Date Received: 10/13/94

Column:(packed/cap) Packed
Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 428, Pg. 71

Date Analyzed: 10/19/94
Preparation Batch: VS1019-2
Instrument Batch: V1019-2B

DUPLICATE

COMPOUND	DETECTION LIMIT (µg/kg)	SAMPLE RESULT (µg/kg)	DUPLICATE RESULT (µg/kg)	FLAG
Acetone	7.1	92.3	70.0	

ALL OTHER COMPOUNDS ARE BELOW DETECTION LIMIT.

SURROGATE STANDARD	SAMPLE RECOVERY (%)	DUPLICATE RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
1,2-Dichloroethane-d4	106	103	70-121	50.0
Toluene-d8	109	114	81-117	50.0
Bromofluorobenzene	97	90	74-121	50.0

U: Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

QUALITY CONTROL

SAMPLE NUMBER

AB-1-1

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**

Source: Campbells Soup

Analysis: **VOLATILE EPA 8240**

Matrix: (soil/water) SOIL Lab Sample I.D.: 19963-001

Preparation Batch: VS1019-2 **Instrument Batch:** V1019-2B

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

COMPOUND	SPIKE ADDED (µg/kg)	SAMPLE CONC. (µg/kg)	MS CONC. (µg/kg)	% REC #	QC LIMITS % REC.
1,1-Dichloroethene	50.0	0.0	51.2	102	59-172
Trichloroethene	50.0	0.0	52.3	105	62-137
Benzene	50.0	0.0	57.4	115	66-142
Toluene	50.0	0.0	58.9	118	59-139
Chlorobenzene	50.0	0.0	55.8	112	60-133

COMPOUND	SPIKE ADDED (µg/kg)	MSD CONC. (µg/kg)	MSD % REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	47.0	94	8	22	59-172
Trichloroethene	50.0	49.1	98	7	24	62-137
Benzene	50.0	51.1	102	12	21	66-142
Toluene	50.0	54.3	109	8	21	59-139
Chlorobenzene	50.0	47.7	95	16	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

ENVIRONMENTAL CHEMICAL CORPORATION

QUALITY CONTROL

SAMPLE NUMBER

N/A

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**

Source: Campbells Soup

Location: N/A

Analysis: **VOLATILE EPA 8240**

Matrix: (soil/water) Soil — Lab Sample I.D.: 19963-LCSS

Preparation Batch: VS1019-2 — **Instrument Batch:** V1019-2B

LABORATORY CONTROL SAMPLE

COMPOUND		TRUE VALUE (µg/kg)	FOUND (µg/kg)	% REC #	QC LIMITS % REC.
1,1-Dichloroethene		50.0	49.2	98	59-172
Trichloroethene		50.0	55.3	111	62-137
Benzene		50.0	54.5	109	66-142
Toluene		50.0	59.9	120	59-139
Chlorobenzene		50.0	57.4	115	60-133

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-1-1

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-001
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/17/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1	108-95-2	Phenol	122	U	
2	111-44-4	bis(2-Chloroethyl)Ether	159	U	
3.	95-57-8	2-Chlorophenol	73.6	U	
4.	541-73-1	1,3-Dichlorobenzene	98.0	U	
5	106-46-7	1,4-Dichlorobenzene	107	U	
6	100-51-6	Benzyl Alcohol	205	U	
7.	95-50-1	1,2-Dichlorobenzene	111	U	
8	95-48-7	2-Methylphenol	213	U	
9	108-60-1	bis(2-chloroisopropyl)ether	189	U	
10.	106-44-5	4-Methylphenol	212	U	
11.	621-64-7	N-Nitroso-Di-n-propylamine	192	U	
12	67-72-1	Hexachloroethane	88.4	U	
13	98-95-3	Nitrobenzene	126	U	
14.	78-59-1	Isophorone	161	U	
15.	88-75-5	2-Nitrophenol	139	U	
16	105-67-9	2,4-Dimethylphenol	71.6	U	
17	111-91-1	bis(2-Chloroethoxy)methane	138	U	
18.	120-83-2	2,4-Dichlorophenol	94.5	U	
19	120-82-1	1,2,4-Trichlorobenzene	138	U	
20	91-20-3	Naphthalene	108	U	
21.	106-47-8	4-Chloroaniline	173	U	
22.	87-68-3	Hexachlorobutadiene	129	U	
23	59-50-7	4-Chloro-3-methylphenol	183	U	
24	91-57-6	2-Methylnaphthalene	154	U	
25.	77-47-4	Hexachlorocyclopentadiene	127	U	
26.	88-06-2	2,4,6-Trichlorophenol	91.8	U	
27	95-95-4	2,4,5-Trichlorophenol	95.0	U	
28	91-58-7	2-Chloronaphthalene	105	U	
29.	88-74-4	2-Nitroaniline	243	U	
30	131-11-3	Dimethylphthalate	126	U	
31	208-96-8	Acenaphthylene	108	U	
32.	606-20-2	2,6-Dinitrotoluene	96.9	U	
33.	99-09-2	3-Nitroaniline	368	U	
34	83-32-9	Acenaphthene	58.0	U	
35	51-28-5	2,4-Dinitrophenol	263	U	
36.	100-02-7	4-Nitrophenol	240	U	
37.	132-64-9	Dibenzofuran	131	U	
38	121-14-2	2,4-Dinitrotoluene	98.8	U	
39	84-66-2	Diethylphthalate	132	U	
40.	7005-72-3	4-Chlorophenyl-phenylether	134	U	
41.	86-73-7	Fluorene	89.5	U	
42	100-01-6	4-Nitroaniline	405	U	
43	534-52-1	4,6-Dinitro-2-methylphenol	102	U	
44.	86-30-6	N-Nitrosodiphenylamine (1)	75.8	U	
45.	101-55-3	4-Bromophenyl-phenylether	62.1	U	
46	118-74-1	Hexachlorobenzene	133	U	

(1) - Cannot be separated from Diphenylamine

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-1-1

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: **SEMIVOLATILE EPA 8270**

Matrix:(soil/water)	SOIL	Lab Sample I.D.:	19963-001
Sample Weight:	10.0 g	Date Sampled:	10/11/94
Extract Volume:	1.0 mL	Date Received:	10/13/94
Injection Volume:	1 µL	Date Extracted:	10/14/94
		Date Analyzed:	10/17/94
Percent Solid:	100 %	**Preparation Batch:**	BNAS1014A
Dilution Factor:	1	**Instrument Batch:**	B1017-2
Lab Notebook No:	416, Pg. 99		

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
47.	87-86-5	Pentachlorophenol	429	U	
48.	85-01-8	Phenanthrene	68.2	U	
49.	120-12-7	Anthracene	88.3	U	
50.	86-74-8	Carbazole	89.1	U	
51.	84-74-2	Di-n-butylphthalate	149	U	
52.	206-44-0	Fluoranthene	94.2	U	
53.	129-00-0	Pyrene	201	U	
54.	85-68-7	Butylbenzylphthalate	147	U	
55.	91-94-1	3,3'-Dichlorobenzidine	552	U	
56.	56-55-3	Benzo(a)anthracene	122	U	
57.	218-01-9	Chrysene	134	U	
58.	117-81-7	bis(2-Ethylhexyl)phthalate	306	U	
59.	117-84-0	Di-n-octylphthalate	204	U	
60.	205-99-2	Benzo(b)fluoranthene	403	U	
61.	207-08-9	Benzo(k)fluoranthene	506	U	
62.	50-32-8	Benzo(a)pyrene	426	U	
63.	193-39-5	Indeno(1,2,3-c,d)pyrene	466	U	
64.	53-70-3	Dibenzo(a,h)anthracene	417	U	
65.	191-24-2	Benzo(g,h,i)perylene	463	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
66.	2-Fluorophenol	96	25-121	20000
67.	Phenol-d5	90	24-113	20000
68.	Nitrobenzene-d5	59	23-120	10000
69.	2-Fluorobiphenyl	81	30-115	10000
70.	Terphenyl-d14	91	18-137	10000
71.	2,4,6-Tribromophenol	74	19-122	20000

U. Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-1-2

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-002
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/17/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	108-95-2	Phenol	122	U	
2.	111-44-4	bis(2-Chloroethyl)Ether	159	U	
3.	95-57-8	2-Chlorophenol	73.6	U	
4.	541-73-1	1,3-Dichlorobenzene	98.0	U	
5.	106-46-7	1,4-Dichlorobenzene	107	U	
6.	100-51-6	Benzyl Alcohol	205	U	
7.	95-50-1	1,2-Dichlorobenzene	111	U	
8.	95-48-7	2-Methylphenol	213	U	
9.	108-60-1	bis(2-chloroisopropyl)ether	189	U	
10.	106-44-5	4-Methylphenol	212	U	
11.	621-64-7	N-Nitroso-Di-n-propylamine	192	U	
12.	67-72-1	Hexachloroethane	88.4	U	
13.	98-95-3	Nitrobenzene	126	U	
14.	78-59-1	Isophorone	161	U	
15.	88-75-5	2-Nitrophenol	139	U	
16.	105-67-9	2,4-Dimethylphenol	71.6	U	
17.	111-91-1	bis(2-Chloroethoxy)methane	138	U	
18.	120-83-2	2,4-Dichlorophenol	94.5	U	
19.	120-82-1	1,2,4-Trichlorobenzene	138	U	
20.	91-20-3	Naphthalene	108	U	
21.	106-47-8	4-Chloroaniline	173	U	
22.	87-68-3	Hexachlorobutadiene	129	U	
23.	59-50-7	4-Chloro-3-methylphenol	183	U	
24.	91-57-6	2-Methylnaphthalene	154	U	
25.	77-47-4	Hexachlorocyclopentadiene	127	U	
26.	88-06-2	2,4,6-Trichlorophenol	91.8	U	
27.	95-95-4	2,4,5-Trichlorophenol	95.0	U	
28.	91-58-7	2-Chloronaphthalene	105	U	
29.	88-74-4	2-Nitroaniline	243	U	
30.	131-11-3	Dimethylphthalate	126	U	
31.	208-96-8	Acenaphthylene	108	U	
32.	606-20-2	2,6-Dinitrotoluene	96.9	U	
33.	99-09-2	3-Nitroaniline	368	U	
34.	83-32-9	Acenaphthene	58.0	U	
35.	51-28-5	2,4-Dinitrophenol	263	U	
36.	100-02-7	4-Nitrophenol	240	U	
37.	132-64-9	Dibenzofuran	131	U	
38.	121-14-2	2,4-Dinitrotoluene	98.8	U	
39.	84-66-2	Diethylphthalate	132	U	
40.	7005-72-3	4-Chlorophenyl-phenylether	134	U	
41.	86-73-7	Fluorene	89.5	U	
42.	100-01-6	4-Nitroaniline	405	U	
43.	534-52-1	4,6-Dinitro-2-methylphenol	102	U	
44.	86-30-6	N-Nitrosodiphenylamine (1)	75.8	U	
45.	101-55-3	4-Bromophenyl-phenylether	62.1	U	
46.	118-74-1	Hexachlorobenzene	133	U	

(1) - Cannot be separated from Diphenylamine

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-1-2

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water): SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-002
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/17/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
47.	87-86-5	Pentachlorophenol	429	U	
48.	85-01-8	Phenanthrene	68.2	U	
49.	120-12-7	Anthracene	88.3	U	
50.	86-74-8	Carbazole	89.1	U	
51.	84-74-2	Di-n-butylphthalate	149	U	
52.	206-44-0	Fluoranthene	94.2	U	
53.	129-00-0	Pyrene	201	U	
54.	85-68-7	Butylbenzylphthalate	147	U	
55.	91-94-1	3,3'-Dichlorobenzidine	552	U	
56.	56-55-3	Benzo(a)anthracene	122	U	
57.	218-01-9	Chrysene	134	U	
58.	117-81-7	bis(2-Ethylhexyl)phthalate	306	U	
59.	117-84-0	Di-n-octylphthalate	204	U	
60.	205-99-2	Benzo(b)fluoranthene	403	U	
61.	207-08-9	Benzo(k)fluoranthene	506	U	
62.	50-32-8	Benzo(a)pyrene	426	U	
63.	193-39-5	Indeno(1,2,3-c,d)pyrene	466	U	
64.	53-70-3	Dibenzo(a,h)anthracene	417	U	
65.	191-24-2	Benzo(g,h,i)perylene	463	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
66.	2-Fluorophenol	96	25-121	20000
67.	Phenol-d5	87	24-113	20000
68.	Nitrobenzene-d5	59	23-120	10000
69.	2-Fluorobiphenyl	79	30-115	10000
70.	Terphenyl-d14	81	18-137	10000
71.	2,4,6-Tribromophenol	71	19-122	20000

U. Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-2-1

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-003
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/17/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	108-95-2	Phenol	122	U	
2.	111-44-4	bis(2-Chloroethyl)Ether	159	U	
3.	95-57-8	2-Chlorophenol	73.6	U	
4.	541-73-1	1,3-Dichlorobenzene	98.0	U	
5.	106-46-7	1,4-Dichlorobenzene	107	U	
6.	100-51-6	Benzyl Alcohol	205	U	
7.	95-50-1	1,2-Dichlorobenzene	111	U	
8.	95-48-7	2-Methylphenol	213	U	
9.	108-60-1	bis(2-chloroisopropyl)ether	189	U	
10.	106-44-5	4-Methylphenol	212	U	
11.	621-64-7	N-Nitroso-Di-n-propylamine	192	U	
12.	67-72-1	Hexachloroethane	88.4	U	
13.	98-95-3	Nitrobenzene	126	U	
14.	78-59-1	Isophorone	161	U	
15.	88-75-5	2-Nitrophenol	139	U	
16.	105-67-9	2,4-Dimethylphenol	71.6	U	
17.	111-91-1	bis(2-Chloroethoxy)methane	138	U	
18.	120-83-2	2,4-Dichlorophenol	94.5	U	
19.	120-82-1	1,2,4-Trichlorobenzene	138	U	
20.	91-20-3	Naphthalene	108	U	
21.	106-47-8	4-Chloroaniline	173	U	
22.	87-68-3	Hexachlorobutadiene	129	U	
23.	59-50-7	4-Chloro-3-methylphenol	183	U	
24.	91-57-6	2-Methylnaphthalene	154	U	
25.	77-47-4	Hexachlorocyclopentadiene	127	U	
26.	88-06-2	2,4,6-Trichlorophenol	91.8	U	
27.	95-95-4	2,4,5-Trichlorophenol	95.0	U	
28.	91-58-7	2-Chloronaphthalene	105	U	
29.	88-74-4	2-Nitroaniline	243	U	
30.	131-11-3	Dimethylphthalate	126	U	
31.	208-96-8	Acenaphthylene	108	U	
32.	606-20-2	2,6-Dinitrotoluene	96.9	U	
33.	99-09-2	3-Nitroaniline	368	U	
34.	83-32-9	Acenaphthene	58.0	U	
35.	51-28-5	2,4-Dinitrophenol	263	U	
36.	100-02-7	4-Nitrophenol	240	U	
37.	132-64-9	Dibenzofuran	131	U	
38.	121-14-2	2,4-Dinitrotoluene	98.8	U	
39.	84-66-2	Diethylphthalate	132	U	
40.	7005-72-3	4-Chlorophenyl-phenylether	134	U	
41.	86-73-7	Fluorene	89.5	U	
42.	100-01-6	4-Nitroaniline	405	U	
43.	534-52-1	4,6-Dinitro-2-methylphenol	102	U	
44.	86-30-6	N-Nitrosodiphenylamine (1)	75.8	U	
45.	101-55-3	4-Bromophenyl-phenylether	62.1	U	
46.	118-74-1	Hexachlorobenzene	133	U	

(1) - Cannot be separated from Diphenylamine

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-2-1

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water): SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-003
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/17/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
47.	87-86-5	Pentachlorophenol	429	U	
48.	85-01-8	Phenanthrene	68.2	U	
49.	120-12-7	Anthracene	88.3	U	
50.	86-74-8	Carbazole	89.1	U	
51.	84-74-2	Di-n-butylphthalate	149	U	
52.	206-44-0	Fluoranthene	94.2	U	
53.	129-00-0	Pyrene	201	U	
54.	85-68-7	Butylbenzylphthalate	147	U	
55.	91-94-1	3,3'-Dichlorobenzidine	552	U	
56.	56-55-3	Benzo(a)anthracene	122	U	
57.	218-01-9	Chrysene	134	U	
58.	117-81-7	bis(2-Ethylhexyl)phthalate	306	U	
59.	117-84-0	Di-n-octylphthalate	204	U	
60.	205-99-2	Benzo(b)fluoranthene	403	U	
61.	207-08-9	Benzo(k)fluoranthene	506	U	
62.	50-32-8	Benzo(a)pyrene	426	U	
63.	193-39-5	Indeno(1,2,3-c,d)pyrene	466	U	
64.	53-70-3	Dibenzo(a,h)anthracene	417	U	
65.	191-24-2	Benzo(g,h,i)perylene	463	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
66.	2-Fluorophenol	92	25-121	20000
67.	Phenol-d5	88	24-113	20000
68.	Nitrobenzene-d5	52	23-120	10000
69.	2-Fluorobiphenyl	72	30-115	10000
70.	Terphenyl-d14	89	18-137	10000
71.	2,4,6-Tribromophenol	69	19-122	20000

U. Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-2-2

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-004
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	108-95-2	Phenol	122	U	
2.	111-44-4	bis(2-Chloroethyl)Ether	159	U	
3.	95-57-8	2-Chlorophenol	73.6	U	
4.	541-73-1	1,3-Dichlorobenzene	98.0	U	
5.	106-46-7	1,4-Dichlorobenzene	107	U	
6.	100-51-6	Benzyl Alcohol	205	U	
7.	95-50-1	1,2-Dichlorobenzene	111	U	
8.	95-48-7	2-Methylphenol	213	U	
9.	108-60-1	bis(2-chloroisopropyl)ether	189	U	
10.	106-44-5	4-Methylphenol	212	U	
11.	621-64-7	N-Nitroso-Di-n-propylamine	192	U	
12.	67-72-1	Hexachloroethane	88.4	U	
13.	98-95-3	Nitrobenzene	126	U	
14.	78-59-1	Isophorone	161	U	
15.	88-75-5	2-Nitrophenol	139	U	
16.	105-67-9	2,4-Dimethylphenol	71.6	U	
17.	111-91-1	bis(2-Chloroethoxy)methane	138	U	
18.	120-83-2	2,4-Dichlorophenol	94.5	U	
19.	120-82-1	1,2,4-Trichlorobenzene	138	U	
20.	91-20-3	Naphthalene	108	U	
21.	106-47-8	4-Chloroaniline	173	U	
22.	87-68-3	Hexachlorobutadiene	129	U	
23.	59-50-7	4-Chloro-3-methylphenol	183	U	
24.	91-57-6	2-Methylnaphthalene	154	U	
25.	77-47-4	Hexachlorocyclopentadiene	127	U	
26.	88-06-2	2,4,6-Trichlorophenol	91.8	U	
27.	95-95-4	2,4,5-Trichlorophenol	95.0	U	
28.	91-58-7	2-Chloronaphthalene	105	U	
29.	88-74-4	2-Nitroaniline	243	U	
30.	131-11-3	Dimethylphthalate	126	U	
31.	208-96-8	Acenaphthylene	108	U	
32.	606-20-2	2,6-Dinitrotoluene	96.9	U	
33.	99-09-2	3-Nitroaniline	368	U	
34.	83-32-9	Acenaphthene	58.0	U	
35.	51-28-5	2,4-Dinitrophenol	263	U	
36.	100-02-7	4-Nitrophenol	240	U	
37.	132-64-9	Dibenzofuran	131	U	
38.	121-14-2	2,4-Dinitrotoluene	98.8	U	
39.	84-66-2	Diethylphthalate	132	U	
40.	7005-72-3	4-Chlorophenyl-phenylether	134	U	
41.	86-73-7	Fluorene	89.5	U	
42.	100-01-6	4-Nitroaniline	405	U	
43.	534-52-1	4,6-Dinitro-2-methylphenol	102	U	
44.	86-30-6	N-Nitrosodiphenylamine (1)	75.8	U	
45.	101-55-3	4-Bromophenyl-phenylether	62.1	U	
46.	118-74-1	Hexachlorobenzene	133	U	

(1) - Cannot be separated from Diphenylamine

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-2-2

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water): SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-004
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/17/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
47.	87-86-5	Pentachlorophenol	429	U	
8.	85-01-8	Phenanthrene	68.2	U	
9.	120-12-7	Anthracene	88.3	U	
50.	86-74-8	Carbazole	89.1	U	
51.	84-74-2	Di-n-butylphthalate	149	U	
2.	206-44-0	Fluoranthene	94.2	U	
53.	129-00-0	Pyrene	201	U	
54.	85-68-7	Butylbenzylphthalate	147	U	
5.	91-94-1	3,3'-Dichlorobenzidine	552	U	
6.	56-55-3	Benzo(a)anthracene	122	U	
57.	218-01-9	Chrysene	134	U	
58.	117-81-7	bis(2-Ethylhexyl)phthalate	306	U	
9.	117-84-0	Di-n-octylphthalate	204	U	
0.	205-99-2	Benzo(b)fluoranthene	403	U	
61.	207-08-9	Benzo(k)fluoranthene	506	U	
62.	50-32-8	Benzo(a)pyrene	426	U	
3.	193-39-5	Indeno(1,2,3-c,d)pyrene	466	U	
64.	53-70-3	Dibenzo(a,h)anthracene	417	U	
65.	191-24-2	Benzo(g,h,i)perylene	463	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
5.	2-Fluorophenol	102	25-121	20000
67.	Phenol-d5	93	24-113	20000
68.	Nitrobenzene-d5	63	23-120	10000
9.	2-Fluorobiphenyl	85	30-115	10000
70.	Terphenyl-d14	89	18-137	10000
71.	2,4,6-Tribromophenol	77	19-122	20000

J: elow Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-3-1

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-005
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	108-95-2	Phenol	122	U	
2.	111-44-4	bis(2-Chloroethyl)Ether	159	U	
3.	95-57-8	2-Chlorophenol	73.6	U	
4.	541-73-1	1,3-Dichlorobenzene	98.0	U	
5.	106-46-7	1,4-Dichlorobenzene	107	U	
6.	100-51-6	Benzyl Alcohol	205	U	
7.	95-50-1	1,2-Dichlorobenzene	111	U	
8.	95-48-7	2-Methylphenol	213	U	
9.	108-60-1	bis(2-chloroisopropyl)ether	189	U	
10.	106-44-5	4-Methylphenol	212	U	
11.	621-64-7	N-Nitroso-Di-n-propylamine	192	U	
12.	67-72-1	Hexachloroethane	88.4	U	
13.	98-95-3	Nitrobenzene	126	U	
14.	78-59-1	Isophorone	161	U	
15.	88-75-5	2-Nitrophenol	139	U	
16.	105-67-9	2,4-Dimethylphenol	71.6	U	
17.	111-91-1	bis(2-Chloroethoxy)methane	138	U	
18.	120-83-2	2,4-Dichlorophenol	94.5	U	
19.	120-82-1	1,2,4-Trichlorobenzene	138	U	
20.	91-20-3	Naphthalene	108	U	
21.	106-47-8	4-Chloroaniline	173	U	
22.	87-68-3	Hexachlorobutadiene	129	U	
23.	59-50-7	4-Chloro-3-methylphenol	183	U	
24.	91-57-6	2-Methylnaphthalene	154	U	
25.	77-47-4	Hexachlorocyclopentadiene	127	U	
26.	88-06-2	2,4,6-Trichlorophenol	91.8	U	
27.	95-95-4	2,4,5-Trichlorophenol	95.0	U	
28.	91-58-7	2-Chloronaphthalene	105	U	
29.	88-74-4	2-Nitroaniline	243	U	
30.	131-11-3	Dimethylphthalate	126	U	
31.	208-96-8	Acenaphthylene	108	U	
32.	606-20-2	2,6-Dinitrotoluene	96.9	U	
33.	99-09-2	3-Nitroaniline	368	U	
34.	83-32-9	Acenaphthene	58.0	U	
35.	51-28-5	2,4-Dinitrophenol	263	U	
36.	100-02-7	4-Nitrophenol	240	U	
37.	132-64-9	Dibenzofuran	131	U	
38.	121-14-2	2,4-Dinitrotoluene	98.8	U	
39.	84-66-2	Diethylphthalate	132	U	
40.	7005-72-3	4-Chlorophenyl-phenylether	134	U	
41.	86-73-7	Fluorene	89.5	U	
42.	100-01-6	4-Nitroaniline	405	U	
43.	534-52-1	4,6-Dinitro-2-methylphenol	102	U	
44.	86-30-6	N-Nitrosodiphenylamine (1)	75.8	U	
45.	101-55-3	4-Bromophenyl-phenylether	62.1	U	
46.	118-74-1	Hexachlorobenzene	133	U	

(1) - Cannot be separated from Diphenylamine

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-3-1

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water): SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-005
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
47.	87-86-5	Pentachlorophenol	429	U	
48.	85-01-8	Phenanthrene	68.2	U	
49.	120-12-7	Anthracene	88.3	U	
50.	86-74-8	Carbazole	89.1	U	
51.	84-74-2	Di-n-butylphthalate	149	U	
52.	206-44-0	Fluoranthene	94.2	U	
53.	129-00-0	Pyrene	201	U	
54.	85-68-7	Butylbenzylphthalate	147	U	
55.	91-94-1	3,3'-Dichlorobenzidine	552	U	
56.	56-55-3	Benzo(a)anthracene	122	U	
57.	218-01-9	Chrysene	134	U	
58.	117-81-7	bis(2-Ethylhexyl)phthalate	306	U	
59.	117-84-0	Di-n-octylphthalate	204	U	
60.	205-99-2	Benzo(b)fluoranthene	403	U	
61.	207-08-9	Benzo(k)fluoranthene	506	U	
62.	50-32-8	Benzo(a)pyrene	426	U	
63.	193-39-5	Indeno(1,2,3-c,d)pyrene	466	U	
64.	53-70-3	Dibenzo(a,h)anthracene	417	U	
65.	191-24-2	Benzo(g,h,i)perylene	463	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
66.	2-Fluorophenol	114	25-121	20000
67.	Phenol-d5	103	24-113	20000
68.	Nitrobenzene-d5	66	23-120	10000
69.	2-Fluorobiphenyl	89	30-115	10000
70.	Terphenyl-d14	92	18-137	10000
71.	2,4,6-Tribromophenol	83	19-122	20000

U Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-3-2

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-006
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	108-95-2	Phenol	122	U	
2.	111-44-4	bis(2-Chloroethyl)Ether	159	U	
3.	95-57-8	2-Chlorophenol	73.6	U	
4.	541-73-1	1,3-Dichlorobenzene	98.0	U	
5.	106-46-7	1,4-Dichlorobenzene	107	U	
6.	100-51-6	Benzyl Alcohol	205	U	
7.	95-50-1	1,2-Dichlorobenzene	111	U	
8.	95-48-7	2-Methylphenol	213	U	
9.	108-60-1	bis(2-chloroisopropyl)ether	189	U	
10.	106-44-5	4-Methylphenol	212	U	
11.	621-64-7	N-Nitroso-Di-n-propylamine	192	U	
12.	67-72-1	Hexachloroethane	88.4	U	
13.	98-95-3	Nitrobenzene	126	U	
14.	78-59-1	Isophorone	161	U	
15.	88-75-5	2-Nitrophenol	139	U	
16.	105-67-9	2,4-Dimethylphenol	71.6	U	
17.	111-91-1	bis(2-Chloroethoxy)methane	138	U	
18.	120-83-2	2,4-Dichlorophenol	94.5	U	
19.	120-82-1	1,2,4-Trichlorobenzene	138	U	
20.	91-20-3	Naphthalene	108	U	
21.	106-47-8	4-Chloroaniline	173	U	
22.	87-68-3	Hexachlorobutadiene	129	U	
23.	59-50-7	4-Chloro-3-methylphenol	183	U	
24.	91-57-6	2-Methylnaphthalene	154	U	
25.	77-47-4	Hexachlorocyclopentadiene	127	U	
26.	88-06-2	2,4,6-Trichlorophenol	91.8	U	
27.	95-95-4	2,4,5-Trichlorophenol	95.0	U	
28.	91-58-7	2-Chloronaphthalene	105	U	
29.	88-74-4	2-Nitroaniline	243	U	
30.	131-11-3	Dimethylphthalate	126	U	
31.	208-96-8	Acenaphthylene	108	U	
32.	606-20-2	2,6-Dinitrotoluene	96.9	U	
33.	99-09-2	3-Nitroaniline	368	U	
34.	83-32-9	Acenaphthene	58.0	U	
35.	51-28-5	2,4-Dinitrophenol	263	U	
36.	100-02-7	4-Nitrophenol	240	U	
37.	132-64-9	Dibenzofuran	131	U	
38.	121-14-2	2,4-Dinitrotoluene	98.8	U	
39.	84-66-2	Diethylphthalate	132	U	
40.	7005-72-3	4-Chlorophenyl-phenylether	134	U	
41.	86-73-7	Fluorene	89.5	U	
42.	100-01-6	4-Nitroaniline	405	U	
43.	534-52-1	4,6-Dinitro-2-methylphenol	102	U	
44.	86-30-6	N-Nitrosodiphenylamine (1)	75.8	U	
45.	101-55-3	4-Bromophenyl-phenylether	62.1	U	
46.	118-74-1	Hexachlorobenzene	133	U	

(1) - Cannot be separated from Diphenylamine

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-3-2

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water): SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-006
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
47.	87-86-5	Pentachlorophenol	429	U	
48.	85-01-8	Phenanthrene	68.2	U	
49.	120-12-7	Anthracene	88.3	U	
50.	86-74-8	Carbazole	89.1	U	
51.	84-74-2	Di-n-butylphthalate	149	U	
52.	206-44-0	Fluoranthene	94.2	U	
53.	129-00-0	Pyrene	201	U	
54.	85-68-7	Butylbenzylphthalate	147	U	
55.	91-94-1	3,3'-Dichlorobenzidine	552	U	
56.	56-55-3	Benzo(a)anthracene	122	U	
57.	218-01-9	Chrysene	134	U	
58.	117-81-7	bis(2-Ethylhexyl)phthalate	306	U	
59.	117-84-0	Di-n-octylphthalate	204	U	
60.	205-99-2	Benzo(b)fluoranthene	403	U	
61.	207-08-9	Benzo(k)fluoranthene	506	U	
62.	50-32-8	Benzo(a)pyrene	426	U	
63.	193-39-5	Indeno(1,2,3-c,d)pyrene	466	U	
64.	53-70-3	Dibenzo(a,h)anthracene	417	U	
65.	191-24-2	Benzo(g,h,i)perylene	463	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
66.	2-Fluorophenol	94	25-121	20000
67.	Phenol-d5	82	24-113	20000
68.	Nitrobenzene-d5	54	23-120	10000
69.	2-Fluorobiphenyl	70	30-115	10000
70.	Terphenyl-d14	76	18-137	10000
71.	2,4,6-Tribromophenol	64	19-122	20000

U. Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-4-1

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: **SEMIVOLATILE EPA 8270**

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 100

Lab Sample I.D.: 19963-007
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1018-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	108-95-2	Phenol	122	U	
2.	111-44-4	bis(2-Chloroethyl)Ether	159	U	
3.	95-57-8	2-Chlorophenol	73.6	U	
4.	541-73-1	1,3-Dichlorobenzene	98.0	U	
5.	106-46-7	1,4-Dichlorobenzene	107	U	
6.	100-51-6	Benzyl Alcohol	205	U	
7.	95-50-1	1,2-Dichlorobenzene	111	U	
8.	95-48-7	2-Methylphenol	213	U	
9.	108-60-1	bis(2-chloroisopropyl)ether	189	U	
10.	106-44-5	4-Methylphenol	212	U	
11.	621-64-7	N-Nitroso-Di-n-propylamine	192	U	
12.	67-72-1	Hexachloroethane	88.4	U	
13.	98-95-3	Nitrobenzene	126	U	
14.	78-59-1	Isophorone	161	U	
15.	88-75-5	2-Nitrophenol	139	U	
16.	105-67-9	2,4-Dimethylphenol	71.6	U	
17.	111-91-1	bis(2-Chloroethoxy)methane	138	U	
18.	120-83-2	2,4-Dichlorophenol	94.5	U	
19.	120-82-1	1,2,4-Trichlorobenzene	138	U	
20.	91-20-3	Naphthalene	108	U	
21.	106-47-8	4-Chloroaniline	173	U	
22.	87-68-3	Hexachlorobutadiene	129	U	
23.	59-50-7	4-Chloro-3-methylphenol	183	U	
24.	91-57-6	2-Methylnaphthalene	154	U	
25.	77-47-4	Hexachlorocyclopentadiene	127	U	
26.	88-06-2	2,4,6-Trichlorophenol	91.8	U	
27.	95-95-4	2,4,5-Trichlorophenol	95.0	U	
28.	91-58-7	2-Chloronaphthalene	105	U	
29.	88-74-4	2-Nitroaniline	243	U	
30.	131-11-3	Dimethylphthalate	126	U	
31.	208-96-8	Acenaphthylene	108	U	
32.	606-20-2	2,6-Dinitrotoluene	96.9	U	
33.	99-09-2	3-Nitroaniline	368	U	
34.	83-32-9	Acenaphthene	58.0	U	
35.	51-28-5	2,4-Dinitrophenol	263	U	
36.	100-02-7	4-Nitrophenol	240	U	
37.	132-64-9	Dibenzofuran	131	U	
38.	121-14-2	2,4-Dinitrotoluene	98.8	U	
39.	84-66-2	Diethylphthalate	132	U	
40.	7005-72-3	4-Chlorophenyl-phenylether	134	U	
41.	86-73-7	Fluorene	89.5	U	
42.	100-01-6	4-Nitroaniline	405	U	
43.	534-52-1	4,6-Dinitro-2-methylphenol	102	U	
44.	86-30-6	N-Nitrosodiphenylamine (1)	75.8	U	
45.	101-55-3	4-Bromophenyl-phenylether	62.1	U	
46.	118-74-1	Hexachlorobenzene	133	U	

(1) - Cannot be separated from Diphenylamine

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-4-1

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: **SEMIVOLATILE EPA 8270**

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 100

Lab Sample I.D.: 19963-007
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1018-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
47.	87-86-5	Pentachlorophenol	429	U	
48.	85-01-8	Phenanthrene	68.2	U	
49.	120-12-7	Anthracene	88.3	U	
50.	86-74-8	Carbazole	89.1	U	
51.	84-74-2	Di-n-butylphthalate	149	U	
52.	206-44-0	Fluoranthene	94.2	U	
53.	129-00-0	Pyrene	201	U	
54.	85-68-7	Butylbenzylphthalate	147	U	
55.	91-94-1	3,3'-Dichlorobenzidine	552	U	
56.	56-55-3	Benzo(a)anthracene	122	U	
57.	218-01-9	Chrysene	134	U	
58.	117-81-7	bis(2-Ethylhexyl)phthalate	306	U	
59.	117-84-0	Di-n-octylphthalate	204	U	
60.	205-99-2	Benzo(b)fluoranthene	403	U	
61.	207-08-9	Benzo(k)fluoranthene	506	U	
62.	50-32-8	Benzo(a)pyrene	426	U	
63.	193-39-5	Indeno(1,2,3-c,d)pyrene	466	U	
64.	53-70-3	Dibenzo(a,h)anthracene	417	U	
65.	191-24-2	Benzo(g,h,i)perylene	463	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
66.	2-Fluorophenol	81	25-121	20000
67.	Phenol-d5	89	24-113	20000
68.	Nitrobenzene-d5	52	23-120	10000
69.	2-Fluorobiphenyl	59	30-115	10000
70.	Terphenyl-d14	80	18-137	10000
71.	2,4,6-Tribromophenol	69	19-122	20000

U. Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-4-2

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 100

Lab Sample I.D.: 19963-008
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1018-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	108-95-2	Phenol	122	U	
2.	111-44-4	bis(2-Chloroethyl)Ether	159	U	
3.	95-57-8	2-Chlorophenol	73.6	U	
4.	541-73-1	1,3-Dichlorobenzene	98.0	U	
5.	106-46-7	1,4-Dichlorobenzene	107	U	
6.	100-51-6	Benzyl Alcohol	205	U	
7.	95-50-1	1,2-Dichlorobenzene	111	U	
8.	95-48-7	2-Methylphenol	213	U	
9.	108-60-1	bis(2-chloroisopropyl)ether	189	U	
10.	106-44-5	4-Methylphenol	212	U	
11.	621-64-7	N-Nitroso-Di-n-propylamine	192	U	
12.	67-72-1	Hexachloroethane	88.4	U	
13.	98-95-3	Nitrobenzene	126	U	
14.	78-59-1	Isophorone	161	U	
15.	88-75-5	2-Nitrophenol	139	U	
16.	105-67-9	2,4-Dimethylphenol	71.6	U	
17.	111-91-1	bis(2-Chloroethoxy)methane	138	U	
18.	120-83-2	2,4-Dichlorophenol	94.5	U	
19.	120-82-1	1,2,4-Trichlorobenzene	138	U	
20.	91-20-3	Naphthalene	108	U	
21.	106-47-8	4-Chloroaniline	173	U	
22.	87-68-3	Hexachlorobutadiene	129	U	
23.	59-50-7	4-Chloro-3-methylphenol	183	U	
24.	91-57-6	2-Methylnaphthalene	154	U	
25.	77-47-4	Hexachlorocyclopentadiene	127	U	
26.	88-06-2	2,4,6-Trichlorophenol	91.8	U	
27.	95-95-4	2,4,5-Trichlorophenol	95.0	U	
28.	91-58-7	2-Chloronaphthalene	105	U	
29.	88-74-4	2-Nitroaniline	243	U	
30.	131-11-3	Dimethylphthalate	126	U	
31.	208-96-8	Acenaphthylene	108	U	
32.	606-20-2	2,6-Dinitrotoluene	96.9	U	
33.	99-09-2	3-Nitroaniline	368	U	
34.	83-32-9	Acenaphthene	58.0	U	
35.	51-28-5	2,4-Dinitrophenol	263	U	
36.	100-02-7	4-Nitrophenol	240	U	
37.	132-64-9	Dibenzofuran	131	U	
38.	121-14-2	2,4-Dinitrotoluene	98.8	U	
39.	84-66-2	Diethylphthalate	132	U	
40.	7005-72-3	4-Chlorophenyl-phenylether	134	U	
41.	86-73-7	Fluorene	89.5	U	
42.	100-01-6	4-Nitroaniline	405	U	
43.	534-52-1	4,6-Dinitro-2-methylphenol	102	U	
44.	86-30-6	N-Nitrosodiphenylamine (1)	75.8	U	
45.	101-55-3	4-Bromophenyl-phenylether	62.1	U	
46.	118-74-1	Hexachlorobenzene	133	U	

(1) - Cannot be separated from Diphenylamine

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-4-2

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 100

Lab Sample I.D.: 19963-008
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1018-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
47.	87-86-5	Pentachlorophenol	429	U	
48.	85-01-8	Phenanthrene	68.2	U	
49.	120-12-7	Anthracene	88.3	U	
50.	86-74-8	Carbazole	89.1	U	
51.	84-74-2	Di-n-butylphthalate	149	U	
52.	206-44-0	Fluoranthene	94.2	U	
53.	129-00-0	Pyrene	201	U	
54.	85-68-7	Butylbenzylphthalate	147	U	
55.	91-94-1	3,3'-Dichlorobenzidine	552	U	
56.	56-55-3	Benzo(a)anthracene	122	U	
57.	218-01-9	Chrysene	134	U	
58.	117-81-7	bis(2-Ethylhexyl)phthalate	306	U	
59.	117-84-0	Di-n-octylphthalate	204	U	
60.	205-99-2	Benzo(b)fluoranthene	403	U	
61.	207-08-9	Benzo(k)fluoranthene	506	U	
62.	50-32-8	Benzo(a)pyrene	426	U	
63.	193-39-5	Indeno(1,2,3-c,d)pyrene	466	U	
64.	53-70-3	Dibenzo(a,h)anthracene	417	U	
65.	191-24-2	Benzo(g,h,i)perylene	463	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
66.	2-Fluorophenol	84	25-121	20000
67.	Phenol-d5	88	24-113	20000
68.	Nitrobenzene-d5	69	23-120	10000
69.	2-Fluorobiphenyl	69	30-115	10000
70.	Terphenyl-d14	80	18-137	10000
71.	2,4,6-Tribromophenol	70	19-122	20000

U: Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-5-1

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 100

Lab Sample I.D.: 19963-009
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1018-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	108-95-2	Phenol	122	U	
2.	111-44-4	bis(2-Chloroethyl)Ether	159	U	
3.	95-57-8	2-Chlorophenol	73.6	U	
4.	541-73-1	1,3-Dichlorobenzene	98.0	U	
5.	106-46-7	1,4-Dichlorobenzene	107	U	
6.	100-51-6	Benzyl Alcohol	205	U	
7.	95-50-1	1,2-Dichlorobenzene	111	U	
8.	95-48-7	2-Methylphenol	213	U	
9.	108-60-1	bis(2-chloroisopropyl)ether	189	U	
10.	106-44-5	4-Methylphenol	212	U	
11.	621-64-7	N-Nitroso-Di-n-propylamine	192	U	
12.	67-72-1	Hexachloroethane	88.4	U	
13.	98-95-3	Nitrobenzene	126	U	
14.	78-59-1	Isophorone	161	U	
15.	88-75-5	2-Nitrophenol	139	U	
16.	105-67-9	2,4-Dimethylphenol	71.6	U	
17.	111-91-1	bis(2-Chloroethoxy)methane	138	U	
18.	120-83-2	2,4-Dichlorophenol	94.5	U	
19.	120-82-1	1,2,4-Trichlorobenzene	138	U	
20.	91-20-3	Naphthalene	108	U	
21.	106-47-8	4-Chloroaniline	173	U	
22.	87-68-3	Hexachlorobutadiene	129	U	
23.	59-50-7	4-Chloro-3-methylphenol	183	U	
24.	91-57-6	2-Methylnaphthalene	154	U	
25.	77-47-4	Hexachlorocyclopentadiene	127	U	
26.	88-06-2	2,4,6-Trichlorophenol	91.8	U	
27.	95-95-4	2,4,5-Trichlorophenol	95.0	U	
28.	91-58-7	2-Chloronaphthalene	105	U	
29.	88-74-4	2-Nitroaniline	243	U	
30.	131-11-3	Dimethylphthalate	126	U	
31.	208-96-8	Acenaphthylene	108	U	
32.	606-20-2	2,6-Dinitrotoluene	96.9	U	
33.	99-09-2	3-Nitroaniline	368	U	
34.	83-32-9	Acenaphthene	58.0	U	
35.	51-28-5	2,4-Dinitrophenol	263	U	
36.	100-02-7	4-Nitrophenol	240	U	
37.	132-64-9	Dibenzofuran	131	U	
38.	121-14-2	2,4-Dinitrotoluene	98.8	U	
39.	84-66-2	Diethylphthalate	132	U	
40.	7005-72-3	4-Chlorophenyl-phenylether	134	U	
41.	86-73-7	Fluorene	89.5	U	
42.	100-01-6	4-Nitroaniline	405	U	
43.	534-52-1	4,6-Dinitro-2-methylphenol	102	U	
44.	86-30-6	N-Nitrosodiphenylamine (1)	75.8	U	
45.	101-55-3	4-Bromophenyl-phenylether	62.1	U	
46.	118-74-1	Hexachlorobenzene	133	U	

(1) - Cannot be separated from Diphenylamine

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-5-1

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water)	SOIL	Lab Sample I.D.:	19963-009
Sample Weight:	10.0 g	Date Sampled:	10/11/94
Extract Volume:	1.0 mL	Date Received:	10/13/94
Injection Volume:	1 µL	Date Extracted:	10/14/94
		Date Analyzed:	10/18/94
Percent Solid:	100 %	**Preparation Batch:**	BNAS1014A
Dilution Factor:	1	**Instrument Batch:**	B1018-2
Lab Notebook No:	416, Pg. 100		

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
47.	87-86-5	Pentachlorophenol	429	U	
48.	85-01-8	Phenanthrene	68.2	U	
49.	120-12-7	Anthracene	88.3	U	
50.	86-74-8	Carbazole	89.1	U	
51.	84-74-2	Di-n-butylphthalate	149	U	
52.	206-44-0	Fluoranthene	94.2	U	
53.	129-00-0	Pyrene	201	U	
54.	85-68-7	Butylbenzylphthalate	147	U	
55.	91-94-1	3,3'-Dichlorobenzidine	552	U	
56.	56-55-3	Benzo(a)anthracene	122	U	
57.	218-01-9	Chrysene	134	U	
58.	117-81-7	bis(2-Ethylhexyl)phthalate	306	U	
59.	117-84-0	Di-n-octylphthalate	204	U	
60.	205-99-2	Benzo(b)fluoranthene	403	U	
61.	207-08-9	Benzo(k)fluoranthene	506	U	
62.	50-32-8	Benzo(a)pyrene	426	U	
63.	193-39-5	Indeno(1,2,3-c,d)pyrene	466	U	
64.	53-70-3	Dibenzo(a,h)anthracene	417	U	
65.	191-24-2	Benzo(g,h,i)perylene	463	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
66.	2-Fluorophenol	85	25-121	20000
67.	Phenol-d5	92	24-113	20000
68.	Nitrobenzene-d5	60	23-120	10000
69.	2-Fluorobiphenyl	58	30-115	10000
70.	Terphenyl-d14	73	18-137	10000
71.	2,4,6-Tribromophenol	58	19-122	20000

U. Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-5-2

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-010
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
1.	108-95-2	Phenol	122	U	
2.	111-44-4	bis(2-Chloroethyl)Ether	159	U	
3.	95-57-8	2-Chlorophenol	73.6	U	
4.	541-73-1	1,3-Dichlorobenzene	98.0	U	
5.	106-46-7	1,4-Dichlorobenzene	107	U	
6.	100-51-6	Benzyl Alcohol	205	U	
7.	95-50-1	1,2-Dichlorobenzene	111	U	
8.	95-48-7	2-Methylphenol	213	U	
9.	108-60-1	bis(2-chloroisopropyl)ether	189	U	
10.	106-44-5	4-Methylphenol	212	U	
11.	621-64-7	N-Nitroso-Di-n-propylamine	192	U	
12.	67-72-1	Hexachloroethane	88.4	U	
13.	98-95-3	Nitrobenzene	126	U	
14.	78-59-1	Isophorone	161	U	
15.	88-75-5	2-Nitrophenol	139	U	
16.	105-67-9	2,4-Dimethylphenol	71.6	U	
17.	111-91-1	bis(2-Chloroethoxy)methane	138	U	
18.	120-83-2	2,4-Dichlorophenol	94.5	U	
19.	120-82-1	1,2,4-Trichlorobenzene	138	U	
20.	91-20-3	Naphthalene	108	U	
21.	106-47-8	4-Chloroaniline	173	U	
22.	87-68-3	Hexachlorobutadiene	129	U	
23.	59-50-7	4-Chloro-3-methylphenol	183	U	
24.	91-57-6	2-Methylnaphthalene	154	U	
25.	77-47-4	Hexachlorocyclopentadiene	127	U	
26.	88-06-2	2,4,6-Trichlorophenol	91.8	U	
27.	95-95-4	2,4,5-Trichlorophenol	95.0	U	
28.	91-58-7	2-Chloronaphthalene	105	U	
29.	88-74-4	2-Nitroaniline	243	U	
30.	131-11-3	Dimethylphthalate	126	U	
31.	208-96-8	Acenaphthylene	108	U	
32.	606-20-2	2,6-Dinitrotoluene	96.9	U	
33.	99-09-2	3-Nitroaniline	368	U	
34.	83-32-9	Acenaphthene	58.0	U	
35.	51-28-5	2,4-Dinitrophenol	263	U	
36.	100-02-7	4-Nitrophenol	240	U	
37.	132-64-9	Dibenzofuran	131	U	
38.	121-14-2	2,4-Dinitrotoluene	98.8	U	
39.	84-66-2	Diethylphthalate	132	U	
40.	7005-72-3	4-Chlorophenyl-phenylether	134	U	
41.	86-73-7	Fluorene	89.5	U	
42.	100-01-6	4-Nitroaniline	405	U	
43.	534-52-1	4,6-Dinitro-2-methylphenol	102	U	
44.	86-30-6	N-Nitrosodiphenylamine (1)	75.8	U	
45.	101-55-3	4-Bromophenyl-phenylether	62.1	U	
46.	118-74-1	Hexachlorobenzene	133	U	

(1) - Cannot be separated from Diphenylamine

ENVIRONMENTAL CHEMICAL CORPORATION

SAMPLE NUMBER

AB-5-2

Customer: **LAW ENGINEERING AND ENVIR. SERVICES**
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) SOIL
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: 19963-010
Date Sampled: 10/11/94
Date Received: 10/13/94
Date Extracted: 10/14/94
Date Analyzed: 10/18/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

SAMPLE RESULTS

	CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG
47.	87-86-5	Pentachlorophenol	429	U	
48.	85-01-8	Phenanthrene	68.2	U	
49.	120-12-7	Anthracene	88.3	U	
50.	86-74-8	Carbazole	89.1	U	
51.	84-74-2	Di-n-butylphthalate	149	U	
52.	206-44-0	Fluoranthene	94.2	U	
53.	129-00-0	Pyrene	201	U	
54.	85-68-7	Butylbenzylphthalate	147	U	
55.	91-94-1	3,3'-Dichlorobenzidine	552	U	
56.	56-55-3	Benzo(a)anthracene	122	U	
57.	218-01-9	Chrysene	134	U	
58.	117-81-7	bis(2-Ethylhexyl)phthalate	306	U	
59.	117-84-0	Di-n-octylphthalate	204	U	
60.	205-99-2	Benzo(b)fluoranthene	403	U	
61.	207-08-9	Benzo(k)fluoranthene	506	U	
62.	50-32-8	Benzo(a)pyrene	426	U	
63.	193-39-5	Indeno(1,2,3-c,d)pyrene	466	U	
64.	53-70-3	Dibenzo(a,h)anthracene	417	U	
65.	191-24-2	Benzo(g,h,i)perylene	463	U	

	SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
66.	2-Fluorophenol	86	25-121	20000
67.	Phenol-d5	79	24-113	20000
68.	Nitrobenzene-d5	44	23-120	10000
69.	2-Fluorobiphenyl	59	30-115	10000
70.	Terphenyl-d14	76	18-137	10000
71.	2,4,6-Tribromophenol	63	19-122	20000

U: Below Detection Limit

ENVIRONMENTAL CHEMICAL CORPORATION

QUALITY CONTROL

SAMPLE NUMBER

N/A

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270

Matrix:(soil/water) Soil
Sample Weight: 10.0 g
Extract Volume: 1.0 mL
Injection Volume: 1 µL

Percent Solid: 100 %
Dilution Factor: 1
Lab Notebook No: 416, Pg. 99

Lab Sample I.D.: BLANK
Date Sampled: N/A
Date Received: N/A
Date Extracted: 10/14/94
Date Analyzed: 10/17/94
Preparation Batch: BNAS1014A
Instrument Batch: B1017-2

BLANK

CAS NO.	COMPOUND	DETECTION LIMITS (µg/kg)	RESULTS	FLAG

ALL COMPOUNDS ARE BELOW DETECTION LIMIT.

SURROGATE STANDARD	RECOVERY (%)	ACCEPTABLE	SPIKE (µg/kg)
2-Fluorophenol	83	25-121	20000
Phenol-d5	88	24-113	20000
Nitrobenzene-d5	59	23-120	10000
2-Fluorobiphenyl	69	30-115	10000
Terphenyl-d14	79	18-137	10000
2,4,6-Tribromophenol	67	19-122	20000

ENVIRONMENTAL CHEMICAL CORPORATION

QUALITY CONTROL

SAMPLE NUMBER: N/A

Customer: LAW ENGINEERING AND ENVIR. SERVICES
Source: Campbells Soup
Location: N/A
Analysis: SEMIVOLATILE EPA 8270
Matrix: (soil/water) Soil — Lab Sample I.D.: 19963-LCSS
Preparation Batch: BNAS1014A — **Instrument Batch:** B1017-2

LABORATORY CONTROL SAMPLE

COMPOUND		TRUE VALUE (µg/kg)	FOUND (µg/kg)	% REC #	QC LIMITS % REC.
Phenol		20000	15600	78	26-90
2-Chlorophenol		20000	14000	70	25-102
1,4-Dichlorobenzene		10000	6230	62	28-104
N-Nitroso-Di-n-propylamine		10000	8910	89	41-126
1,2,4-Trichlorobenzene		10000	5950	60	38-107
4-Chloro-3-methylphenol		20000	14300	71	26-103
Acenaphthene		10000	9080	91	31-137
4-Nitrophenol		20000	3600	18	11-114
2,4-Dinitrotoluene		10000	7480	75	28-89
Pentachlorophenol		20000	5370	27	17-109
Pyrene		10000	9550	95	35-142

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

Environmental Chemical

STAR ANALYTICAL
CHAIN-OF-CUSTODY FORM

14000 Trinity Boulevard, Suite 119
Fort Worth, Texas 76155
(817) 571-6800 • FAX (817) 354-9499

Company Name: Law Engineering	Project Name: Campbells Soup
Address: 7609.94.12 7300 Turfway Rd #250	Billing Address (if different):
City: Florence State: KY Zip Code: 41042	
Telephone: 606 371-2960 FAX #: 371-2721	P.O. #: 724-94-138.
Report To: J. DeLano Sampler: J. DeLano	

Turnaround Time: 7- ☒ 10 Working Days ☐ 2 Working Days ☐ 7 Working Days ☐ 24 Hours ☐ 4 Working Days ☐ 2 - 8 Hours

Analyses Requested: EPA 8240, EPA 8270

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Star's Sample #	Comments
1. AB-1-1	10/11/94 : 9:00	Soil	1	Brass		
2. AB-1-2	10/11/94 : 9:45					
3. AB-2-1	10:25					
4. AB-2-2	11:15					
5. AB-3-1	11:42					
6. AB-3-2	12:15					
7. AB-4-1	13:37					
8. AB-4-2	14:21					
9. AB-5-1	14:45					
10. AB-5-2	15:20					

Relinquished By: James DeLano	Date: 10/13/94	Time: 9:10	Received By: Denise DeTellem	Date: 10-13-94	Time: 9:10
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By: Denise DeTellem	Date: 10-13-94	Time: 9:20

Were Samples Received in Good Condition? ☒ Yes ☐ No Samples on Ice? ☒ Yes ☐ No Method of Shipment Lab Pick-up Page 1 of 1

Pink - Client
Yellow - Star
White - Star

APPENDIX C
DRILLING PROCEDURES

SOIL SAMPLING

Soil Boring Construction

A total of five soil borings were advanced using a hand auger at the subject site as shown in Figure 2. The borings will be located as follows:

Four 5-foot deep hand auger borings were located beneath the area where spent solvents were poured on the coal pile.

One hand auger boring were advanced to a depth of 5-feet near the east side of the coal storage and mixing area. This sample will be obtained from an area beneath the coal pile where no solvents were poured. This sample will be used as the comparison sample for the samples obtained from areas beneath the coal pile where solvents were poured.

On completion, the borings were backfilled with sand.

Soil

Undisturbed soil samples were taken at depths of one feet and five feet below the ground surface. The soil samples obtained at a depth of one foot were used to assess the impact of the pouring of spent solvents on the coal pile. The soil samples obtained from a depth of five feet were used to assess the potential migration of contaminants, if any. The soil samples obtained from beneath the coal pile where spent solvents were poured will be compared to the areas where solvents were not poured on the coal pile. The samples were acquired with a hand sampler driven ahead of the hand auger. The samples were retained in clean brass sleeves that will be capped with Teflon-lined plastic caps, labeled, and placed into a chilled ice chest. Duplicate soil samples will be screened for the presence of volatile organic vapors using a flame ionozation detector (FID)

The samples were collected and logged by one of our field engineer/scientists. The samples were be stored in an insulated ice chest until transportation to a state-certified laboratory for analysis. The appropriate Chain-of-Custody documentation accompanied the samples at all times.

Decontamination Procedures

The sampling equipment and brass sleeves were be washed prior to use using the standard EPA three bucket wash/rinse.

LABORATORY ANALYSIS

Ten soil samples were selected based on field observations and PID readings were chemically analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8240 and for semi-volatile organic compounds by EPA Method 8270.

APPENDIX D
HEALTH AND SAFETY PLAN

HEALTH AND SAFETY PLAN
FOR
PHASE II ENVIRONMENTAL SITE ASSESSMENT
AT
CAMPBELL SOUP COMPANY/
NAPOLEON PLANT
NAPOLEON, OHIO

Prepared for:

Campbell Soup Company

Napoleon, Ohio

Prepared by:

Law Engineering, Inc.

Cincinnati, Ohio

August 31, 1994

Law Engineering Project No. 724.94.138

PROJECT PRINCIPAL	Daniel T. Elliott	8/31/94 Date
PROJECT MANAGER/ SITE HEALTH & SAFETY COORDINATOR	James M. DeLano	8/31/94 Date

1.0 INTRODUCTION

The Health and Safety Plan provides site-specific health and safety controls to be followed during the site assessment field activities to be performed at the Campbell Soup Company/Napoleon Plant. The elements of this plan include procedures for personnel protection, personnel and equipment safety, medical surveillance, air quality monitoring, and general work practices for Law Engineering, Inc. and our subcontractors. This plan also details the proper emergency procedures including emergency response and first-aid capabilities. Compliance with this Health and Safety Plan is required of workers and third parties who enter the field operation areas during the field activities.

The purpose of this Health and Safety Plan is to describe the anticipated physical and health hazards, controls, and procedures needed to minimize the accident and injury risks associated with field work conducted during the field activities at the subject facility.

The provisions specified here are intended to conform to applicable State environmental and occupational health and safety regulations. These control measures will apply to field personnel who participate in the field work. Field personnel will continuously monitor the site conditions to ensure that the field work does not endanger surrounding on-site and off-site personnel.

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2.0 ASSIGNMENT OF RESPONSIBILITIES

2.1 INTRODUCTION

The following sections briefly describe the health and safety personnel responsibilities which will be employed during the site assessment activities at the site.

2.2 SITE HEALTH AND SAFETY COORDINATOR

The Site Health and Safety Coordinator (SHSC) is responsible for the development of the site plan. These areas of responsibility include hazard assessment, medical requirements, training requirements, air monitoring, personal protective equipment, site control, decontamination protocol, emergency actions and record keeping.

2.3 FIELD SUPERVISOR/SITE SAFETY OFFICER

The field supervisor is responsible for field implementation of the plan and is the Site Safety Officer (SSO). This includes communicating specific requirements to site personnel and consulting with the health and safety coordinator on safety and health requirements. The field supervisor, in conjunction with the Site Health and Safety Coordinator will implement emergency actions, as necessary. The field supervisor has final authority at the site.

2.4 SITE PERSONNEL

Site personnel are responsible for understanding and complying with site safety and health requirements. Safety Meeting Documentation forms (Figure 2-A) will be used to document that site personnel have been apprised of site safety and health requirements.

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3.0 GENERAL HEALTH AND SAFETY REQUIREMENTS

3.1 TRAINING

Health and Safety training is required for personnel assigned to work on the site or who may be expected to perform potentially hazardous activities.

Consistent with the Federal OSHA 29 CFR 1910.120 regulations covering Hazardous Waste Operations and Emergency Response, site personnel are required to be trained in accordance with the standard. At a minimum, personnel are required to be trained to recognize the hazards on site, the provisions of this HSP and the responsible personnel.

3.1.1 Preassignment Training

Prior to arrival on site, each employer shall be responsible for certifying that field personnel meet the requirements of preassignment training. Consistent with Federal OSHA 29 CFR 1910.120 each employer shall be able to provide a document certifying dates of 40 hours of training. An employer may also grandfather experienced personnel. Personnel must receive 8 hours of annual refresher training.

3.1.2 Site-Specific Training

Site personnel will complete site-specific training that will address potential hazards anticipated to be at the site and control measures to be implemented. This training will include the following:

- Health and Safety Plan - Site personnel will be instructed verbally on the contents of the plan.

- Hazard Awareness - Employees will be made aware of the chemicals used or suspected to have been used on site. Information will include potential routes of exposure, acute and/or chronic effects, protective clothing to be worn, precautionary measures to be taken, and specific task assignments.

- Safety meeting information will be recorded on Safety Meeting Documentation forms (Plate 2-A), which will be retained in project files.

3.1.3 First Aid and CPR Training

It is required that a selected number of field personnel including the SHSC shall have First-Aid and CPR training. These courses shall be consistent with the requirements of the American Red Cross Association. Only employees current in first-aid/CPR training are to render assistance to an injured employee.

3.2 MEDICAL PROGRAM

Medical monitoring programs are designed to track the physical condition of employees on a regular basis as well as to establish preemployment or baseline conditions prior to potential exposures. The medical surveillance program is part of each employer's Health and Safety Program.

3.2.1 Baseline or Preassignment and Periodic Monitoring

Prior to being assigned to a hazardous or potentially hazardous activity involving exposure to toxic materials, each site employee must have received a preassignment or baseline physical or an update physical within the last 12 months that complies with the Federal OSHA 29 CFR 1910.120 requirements. The specific contents of the physical is to be determined by the employer's medical consultant.

No additional testing for site specific contaminant health effects is required for this site.

3.2.2 Exposure/Injury/Medical Support

As a follow-up to an injury or possible exposure above established exposure limits, all employees are entitled to and encouraged to seek medical attention and physical testing. Depending upon the type of exposure, it is critical to perform follow-up testing within 24-48 hours. In the event of an injury, site personnel are to administer first-aid, as appropriate, transport the victim to the closest emergency care facility as identified on

Plate 1-A, or call 911 for assistance.

3.3 SITE SAFETY MEETINGS

Site Safety meetings will be conducted by the SSO before field personnel begin work, when there are modifications to the Health and Safety Plan, and when additional personnel begin field work. Meetings shall be attended by all field personnel involved in field activities.

The meeting topics shall include the following:

- Description of the assigned tasks and their potential hazards;
- Coordination of site activities;
- Physical and health hazards;
- Identification of methods and precautions to prevent injuries;
- Emergency planning;
- Modification to Health and Safety Plan;
- Input from field personnel on health and safety issues pertaining to site activities; and
- Collection of the attendees' signatures, acknowledging receipt and understanding of the Health and Safety Plan and their agreement to comply.

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4.0 PHYSICAL AND CHEMICAL HAZARDS

The following section details the potential safety and hazards which may be encountered during the drilling project.

4.1 PHYSICAL HAZARDS

Anticipated physical hazards include exposure to noise from site equipment, heavy equipment and traffic hazards, vehicle use, heat stress from the use of personal protective equipment, and other hazards associated with any outdoor labors such as slips, trips, falls, splashes, spills, and material-handling (back) injuries. Caution will be exercised to avoid such hazards.

4.1.1 Heat Stress

The ambient air temperature is expected to be above 70°F; therefore, heat stress monitoring will be required.

Heat Stress Illnesses

- Heat stroke is a life threatening situation in which the victim's temperature control system, which produces sweating to cool body, stops working. Body temperature can rise quickly to levels that can cause brain damage and death. Immediate action is required.

- Heat exhaustion is less dangerous and results from loss of body fluids. This fluid loss causes blood flow to decrease in vital organs, resulting in a form of shock. In addition, sweat does not evaporate properly due to high humidity or layers of clothing, resulting in inadequate cooling of the body.

- Heat cramps are muscular spasms due to heavy exertion. These cramps usually involve the abdomen and legs and are caused by the loss of water and salt via heavy sweating.

- Heat rash is a skin rash that occurs from excessive moisture and chaffing clothes. Commonly referred to as "prickly rash".

Preventing heat stress is particularly important because once someone suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat injuries. The signs/symptoms and first-aid for heat related illnesses are summarized in Table 1.

Method of Controlling Heat Stress

Adequate shade in which employees can rest and drinking water (or electrolyte solution to prevent dehydration) must be available at the site. Employees are encouraged to drink plenty of fluids.

The following initial work schedule will be implemented:

Heat Stress Monitoring:

- Count the heart rate by the radial pulse for 1 minute for all personnel at the beginning of the day prior to start of activities.
- Work for 1 to 1½ hours.
- Break for 15 minutes.
- Count the radial pulse for all personnel for 30 seconds (and multiply by 2) at the beginning of the break period.
- If the heart rate exceeds 110 beats per minute (BPM), shorten the next work cycle by ⅓ and keep the rest periods at 15 minutes.
- If the heart rate exceeds 110 BPM at the next rest period, shorten the next work cycle by ⅓ again, keeping the 15 minute breaks.

- If the heart rate ever exceeds 120 BPM, the employee will be required to rest for 30 to 45 minutes to allow the heart rate to decrease to at least 90 BPM.

Forms of Heat Stress	Signs/Symptoms	First Aid
Heat Stroke	Hot, red skin Constricted (small) pupils High body temperature Unusually dry skin	Call EMS (911), care for shock. Immerse in cool water or wrap in wet towels. Give NOTHING by mouth.
Heat Exhaustion	Cool, pale, moist skin Heavy sweating Normal body temperature Dilated (large) pupils Headache, nausea, dizziness, vomiting	Move to cool area. Have victim lie down, elevating feet by 1 to 1½ feet. Loosen clothing. Apply wet towels, give glass of water every 15 minutes.
Heat Cramps	Muscular pain, aches that typically occur several hours after cessation of work/heat exposure	If cramps occur on-site move to cool place. Give glass of water every 15 minutes. Replace lost fluids/electrolytes as necessary if cramps occur off the site.

4.2 CHEMICAL HAZARDS

The principal hazard to site investigation personnel at the Campbell Soup Company/Napoleon Plant facility is potential exposure to petroleum naptha, cyclohexcanol, and isobutyl and amino alcohol. Potential hazards include toxicity due to inhalation and dermal contact of the various compounds present.

Chemical hazard information is summarized on the table presented on the following page.

CHEMICAL HEALTH HAZARD INFORMATION

Chemical / Compound	ACGIH TLVs		NIOSH	Routes of Entry	Target Organs	Acute Exposure Symptoms
	TWA	STEL	IDLH			
Mineral Spirits 135/ Petroleum Naptha	100 ppm	200 ppm	10,000 ppm	Inhalation, Ingestion, skin contact, skin absorbtion	CNS, eyes, skin, respiratory system	Diziness, drownsiness, nausea; irratation of eyes, nose, throat
2 – Butoxy Ethanol	25 ppm	NA	700 ppm	Inhalation, ingestion, skin contact, skin contact, skin absorption	Eyes, skin respiratory stem	Eye, nose, skin, hemolysis
Cyclohexanol	50 ppm	50 ppm	3500 ppm	Inhalation, ingestion, skin contact, skin absorption	Eyes, skin, respiratory system	Irritated eyes, nose, skin; skin narcosis
Isobutyl Alcohol	50 ppm	50 ppm	8000 ppm	Inhalation, ingestion	Eyes, skin; respiratory system	Irritates eyes, skin; drowsiness stupor, dermatitis

4.2.1 Hazard Evaluation

Route of Exposure

Chemical contaminants may be a health hazard to site personnel via ingestion, skin absorption, or inhalation. Accidental ingestion of contaminants may occur as a result of dust or soil on the hands and hand to mouth contact or inhalation. Inhalation of vapor may occur during soil disruption activities, sample collection, and sample preparation. Skin absorption is possible if skin directly contacts site contaminants, contaminated soil or water.

4.3 LEVEL OF PROTECTION

For the described activities, personnel working at the site will initially be required to wear Level D protection. This protection will include the following:

- Coveralls
- Steel-toed boots
- Hard hat
- Disposable gloves during sample handling operations
- Eye protection, as necessary
- Ear protection, as necessary

Higher or lower levels of protective equipment may be required depending on hazard assessments and air monitoring readings during field work. The upgrade or downgrade of protective equipment will be recorded on the Field Activity Daily Log form.

If the PID steady state meter reading in the worker's breathing zone is 20 ppm or more, for one minute, then the SSO will authorize Level C protection.

Level C includes:

- Full face respirator NIOSH approved with organic vapor cartridges

- Tyvek suits (if splash hazard is possible, a polyethylene coated suit must be worn)
- Nitrile, butyl rubber, or neoprene gloves
- Steel toe/shank chemically resistant rubber or neoprene work boot, or steel toe/shank work boot with chemically resistant outer boots
- Inner disposable gloves (two pairs recommended)
- Hard hat
- Hearing protection (as appropriate)

If the PID steady state meter reading is over 250 ppm for one minute, then work will stop until Level B protection can be used.

Level B includes:

- Air supplied respirator
- Coated Tyvek suit, such as Saranex
- Nitrile, butyl rubber, or neoprene gloves
- Inner latex or vinyl gloves
- Steel toe and shank boots
- Outer boots - chemically resistant, rubber or neoprene
- Hard hat
- Hearing protection (as appropriate)

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5.0 SITE SAFETY WORK PLAN

5.1 SITE ENTRY PROCEDURES

It will be necessary for the field team to control access to the work area. The SSO will mark a restricted area, using traffic delineators (cones) and highly visible tape. Only persons who meet the safety training and medical monitoring requirements and who are in possession of the required personal protective equipment will be allowed in the restricted area. Prior to the start of field work activities, the SSO will perform the following steps as necessary:

- Sign in with facility representative and inform him of each day's planned activities.
- Locate the nearest telephone and post the emergency telephone numbers.
- Identify the locations of the fire extinguisher, emergency eye wash, first aid kit, restrooms, and rest areas.
- Flagging and barricades will be placed to prohibit entry of all unauthorized personnel to the work area/Exclusion Zone.
- Setup support zone, decontamination zone, and the up-site access point.
- Evaluate site conditions.

5.2 AIR MONITORING REQUIREMENTS

Monitoring for volatile organic compounds (VOCs) will be conducted using an photoionization detector (PID) which will be calibrated prior to use in accordance to the manufacturer's instructions. Calibration shall be recorded in the calibration log. Monitoring for combustible atmospheres will be conducted during drilling activities using either a combustible gas indicator (CGI) or the PID. VOCs will be monitored in the breathing zone of the workers. Combustible atmospheres will be monitored in low lying areas, excavations, sumps or pits, near the boring locations, and in other areas as dictated by site conditions.

- The buddy system will be used at all times.
- Work will be done during the daylight hours only.
- Site activities will not be conducted during lightning storms.

5.4 DECONTAMINATION PROCEDURES

The site safety coordinator is responsible for ensuring that all pieces of equipment are properly decontaminated according to the procedures outlined above. Decontamination must be documented in the Field Daily Activity Logs.

5.4.1 Decontamination Area

Set decontamination area upwind and upgradient of the work area, as necessary. The decontamination area must be established at a sufficient distance from the drilling locations to preclude contamination by splashing water or flying dirt.

5.4.2 Personnel

Wash outer gloves and boots with soap and water. Remove and dispose of Tyvek suit or cotton coveralls, as applicable. Remove boots and then outer gloves. Remove respirator and finally remove inner gloves. Wash hands and face with soap and water, and dispose of Tyvek in drums. Containerize rinsate on-site for proper disposal. Take a shower and wash hair as soon as possible after leaving the site.

5.4.3 Equipment Decontamination

Drilling rig, drilling and sampling tools and air monitoring instruments will be cleaned before transport to the non-contaminated work area. The equipment decontamination procedures are described in the work plan.

5.4.4 Disposal of Materials Used On Site

Solid and liquid wastes generated during decontamination procedures and disposable personal protective equipment will be packed in 55-gallon reconditioned drums, and shall be contained in a secure area and will be inventoried and labeled. After analytical results determine whether soil or water is contaminated, the drums will be disposed of in an appropriate manner.

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Responsible Personnel:

Team Members	Responsibility	Phone No.
James DeLano	Field Supervisor/Site Safety Officer	(606) 371-2960
Dan Elliott	Project Manager/ Site Health & Safety Coordinator	(213) 889-5300
Nancy Newlander	Health and Safety Consultant	(213) 889-5300

6.2 PERSONNEL INJURY

The following steps will be taken if an injury occurs:

- Prevent further injury and notify the SSO.
- Initiate first aid and provide immediate medical attention for the injured person.
- Depending on the type and severity of the injury, call 911 or transport victim to nearest emergency medical facility.
- Notify the injured person's supervisor or personnel office.
- Prepare an injury incident report. The Project Manager is responsible for preparing and submitting the incident report to the Health and Safety Officer, the Manager, and the Corporate Personnel Office within 48 hours.

6.2.1 Small Fire/Explosion

In the event of a small, controlled, explosion or fire, the field supervisor will determine if fire suppression can be achieved by site personnel. Only trained, qualified personnel will be used. Appropriate actions include:

- Notify site personnel to leave work zone.
- Use of heavy equipment to smother flames with clean site soil or clean fill, if readily available.

- Use of fire extinguishers.
- Use of clean decontamination water.
- Evacuate work zone or fire area, call facility emergency number, as required.
- Evacuate work zone or fire area, call 911.
- Stay at the site while waiting for Fire Department as long as it is safe to do so.
- Notify Project Manager, Health and Safety Officer, or Department Manager.
- Determine with appropriate facility, Fire Department personnel ability to continue work.
- Notify site personnel of decision to continue work or to stop work.

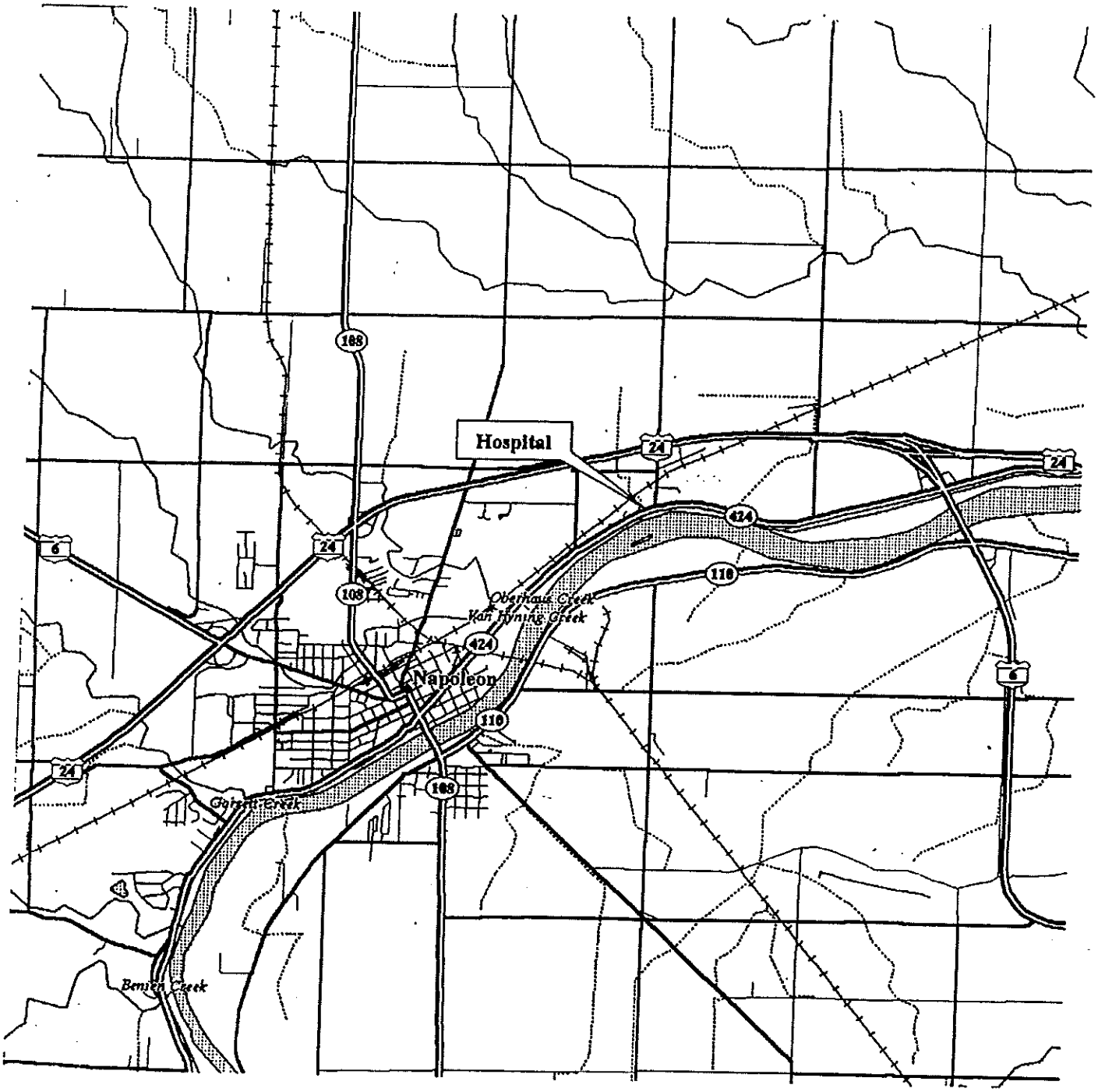
6.2.2 Large Fire/Explosion

In the event of an uncontrolled or large fire or explosion, the field supervisor will:

- Immediately sound evacuation alarm.
- Call 911, or facility emergency number.
- Take head count.
- Move personnel off site to wait for Fire Department.
- Notify Project Manager, Branch Manager, or Health and Safety Officer.
- Determine, in conjunction with facility personnel and Project Manager, whether to send home site personnel.
- Remain at location, if necessary for fire department or facility investigation.

6.3 EMERGENCY SIGNALS

EQUIPMENT	SIGNAL	REQUIRED ACTION
Air Horn	1 long blast 10 seconds apart	Stop work, turn off equipment, leave work zone, use modified decon procedures, assemble in support zone
Air Horn	3 short successive blasts 10 seconds between each set	Immediately stop work, turn off equipment and evacuate site; assemble in alternate area as indicated in tailgate meetings



HOSPITAL LOCATION MAP
(NOT TO SCALE)
SOURCE: MAPEXPERT 2.0

NORTH

CAMPBELL SOUP
E. Maumee Ave
Napoleon, Ohio

LAW
Engineering and Environmental Services

PLATE 1A
724.94.138
August 31, 1994

LAW/CRANDALL, INC.

SAFETY MEETING DOCUMENTATION

DATE OF MEETING: _____ TIME OF MEETING: _____

COMPANY: _____ BRANCH: _____ DIVISION: _____

CLIENT: _____ PROJECT NO.: _____

SITE LOCATION: _____

ADDRESS: _____

ACTIVITIES: _____

MEETING TOPICS:

1) PHYSICAL HAZARDS: _____

2) CHEMICAL HAZARDS: _____

3) BIOLOGICAL HAZARDS: _____

4) PROTECTIVE CLOTHING/EQUIPMENT: _____

5) EMERGENCY SITUATION: _____

6) NEAREST HOSPITAL/CLINIC: _____

PHONE: _____ ADDRESS: _____

7) EQUIPMENT: _____

8) OTHER: _____

(SIGNATURES ON BACK)

APPENDIX B

MATERIAL SAFETY DATA SHEETS

CLEMENT "COVERALL" COMPANY

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP. 6-21-91

Section I

MANUFACTURER'S NAME: Clement "Coverall" Company

STREET ADDRESS: 623 Van Hook Street, Camden, NJ 08104

MAILING ADDRESS: P.O. Box 557, Camden, NJ 08101

TELEPHONE NUMBERS:

EMERGENCY: 800-424-9300 CHEMTREC

EMERGENCY: 609-429-0723 CLEMENT

INFORMATION: 609-964-9042 BUSINESS HOURS

HMIS RATINGS (NPCA)	
HEALTH 2	REACTIVITY 0
FLAMMABILITY 2	PERS. PROTEC. EQUIP.

PRODUCT CLASS

EPOXY ESTER WATER WASH CONCENTRATE

MANUFACTURER'S CODE

P-1130-W-5

Section II—HAZARDOUS INGREDIENTS

INGREDIENTS	C.A.S. NUMBER	WT. PERCENT	EXPOSURE LIMITS-THA TLV	PEL	VAPOR PRESSURE
2-BUTOXY ETHANOL	111-76-2	24	25PPM SKIN	25PPM	0.6
CLOHEXANOL	108-93-0	10	50PPM	50PPM	1.0
1_OBUTYL ALCOHOL	78-83-1	<5	50PPM	100PPM	9.6
AMINO ALCOHOL	108-01-0	<5	NOT ESTABLISHED		5.0

I IS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES WHICH ARE DEFINED AS TOXIC UNDER SECTION 313 OF SARA TITLE III and 40 CFR 372: GLYCOL ETHER (2-BUTOXY ETHANOL).

No F-020
F-021
F-022
F-023
F-026
F-027

Section III—PHYSICAL DATA

BOILING RANGE (°F): 320-340 VAPOR DENSITY: [vv] HEAVIER [ ] LIGHTER THAN AIR

EVAPORATION RATE: [ ] FASTER [vv] SLOWER THAN ETHER PERCENT VOLATILE BY VOLUME: 44 WEIGHT PER GALLON: 8.25

Section IV—FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: COMBUSTIBLE OSHA Class II FLASH POINT (SETAFLASH): 122 °F LEL 1.1

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Avoid sources of ignition. Ground all transfer equipment. Closed containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES: Water spray (fog nozzles) may be used for cooling closed containers. Full protective equipment should be used by firefighters to protect them from hazardous decomposition products listed in Section VI.

MSDS - 3

Section V—HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF OVEREXPOSURE: ACUTE

EYES - Can cause severe irritation, tearing, blurred vision.

SKIN - Prolonged or repeated contact can cause moderate irritation, drying, defatting, dermatitis. Toxic if absorbed through the skin.

INHALATION - Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and asphyxiation.

INGESTION - Can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

EFFECTS OF OVEREXPOSURE: CHRONIC

Prolonged and repeated overexposure may cause anemia, liver abnormalities, kidney damage, lung damage, blood abnormalities.

AGGRAVATED MEDICAL CONDITIONS:

Pre-existing skin, eye, lung, kidney, blood and liver disorders may be aggravated by exposure.

PRIMARY ROUTES OF ENTRY:

Inhalation, skin contact and absorption.

EMERGENCY AND FIRST AID PROCEDURES: In case of skin contact, wash thoroughly with soap and water: for eyes, flush immediately with plenty of water for 15 minutes and call a physician. Remove and wash contaminated clothing before reuse. If exposed to high concentration of vapor remove patient to fresh air. If swallowed, CALL A PHYSICIAN IMMEDIATELY. DO NOT INDUCE VOMITING.

Section VI—REACTIVITY DATA

STABILITY: [ ] UNSTABLE [X] STABLE

INCOMPATIBILITY (Materials to avoid): Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: As with any organic chemical, thermal decomposition will yield carbon dioxide and probably carbon monoxide.

HAZARDOUS POLYMERIZATION [ ] MAY OCCUR [X] WILL NOT OCCUR

CONDITIONS TO AVOID: Sources of ignition, high temperatures.

Section VII—SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove sources of ignition, ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD: Incinerate in approved facility in accordance with local, state and federal regulations. Do not incinerate closed container.

Section VIII—SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NOISH approved respiratory device when airborne exposure limits are exceeded. Provide ventilation to control exposure levels below airborne exposure limits.

VENTILATION: All application areas should be ventilated in accordance with OSHA regulations.

PROTECTIVE GLOVES: Recommended.

EYE PROTECTION: Use approved safety eyewear with splash guards.

OTHER PROTECTIVE EQUIPMENT: Safety shower and eye bath.

Section IX—SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep away from heat, sparks and open flame Use only with adequate ventilation. Since emptied containers retain product residue (vapor or liquid), all labeled hazard precautions must be observed.

OTHER PRECAUTIONS: Avoid prolonged or repeated breathing of vapor or spray mist. Avoid contact with eyes and skin. Do not take internally.

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.

Shell

MATERIAL SAFETY DATA SHEET

97387 (4-85) MSDS NUMBER ▶ 7.550-7 PAGE 1

24 HOUR EMERGENCY ASSISTANCE	GENERAL MSDS ASSISTANCE
SHELL: 713-473-9461 CHEMTREC: 800-424-9300	SHELL: 713-241-4819

ACUTE HEALTH *	FIRE	REACTIVITY	HAZARD RATING ▶
2	2	0	LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4

*For acute and chronic health effects refer to the discussion in Section III

BE SAFE
READ OUR PRODUCT SAFETY INFORMATION ... AND PASS IT ON
PRODUCT LIABILITY LAW REQUIRES IT!

SECTION I

PRODUCT ▶ MINERAL SPIRITS 135 "D" THINNER

CHEMICAL NAME ▶ NOT APPLICABLE

CHEMICAL FAMILY ▶ HYDROCARBON SOLVENT

SHELL CODE ▶ 83048

No F020 F021 F022 F023 F024 F027

SECTION II-A

NO.	PRODUCT/INGREDIENT COMPOSITION	CAS NUMBER	PERCENT
1	MINERAL SPIRITS 135	MIXTURE*	100
2	SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC	64742-88-7	>85
	SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	<15
	----------TYPICAL DISTRIBUTION----------	----------	----------
	PARAFFINS	NOT APPL.	45.9
	NAPHTHENES	NOT APPL.	40.3
	TOTAL AROMATICS	NOT APPL.	13.8
	(TRIMETHYLBENZENE ..... 5-7%)	25551-13-7	--
	(ETHYLTOLUENE ..... 0.6-0.9)	25550-14-6	--
	OLEFINS	NOT APPL.	<0.1

A COMPLEX COMBINATION OF PREDOMINATELY C8-C12 HYDROCARBONS; EXACT COMPOSITION WILL VARY.

SECTION II-B

ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
	NOT AVAILABLE		
1*	>25 ML/KG (RAT)	>4 ML/KG (RABBIT)	>700 PPM/4H (RAT)
2*	4.7 G/KG (RAT)	>4 ML/KG (RAT)	>3670 PPM/8H (RAT)

*BASED UPON TESTING OF EITHER PRODUCT OR ESSENTIALLY SIMILAR PRODUCTS.

SECTION III

HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT
LIQUID IS MINIMALLY IRRITATING TO THE EYES. HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION.

SKIN CONTACT
LIQUID IS SLIGHTLY IRRITATING TO THE SKIN. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

PRODUCT NAME; MINERAL SPIRITS 135

ALATION
PORS MAY BE IRRITATING TO NOSE, THROAT AND RESPIRATORY TRACT. HIGH VAPOR CONCENTRATIONS MAY
AUSE CNS DEPRESSION.

ESTION
STION OF PRODUCT MAY RESULT IN VOMITING; ASPIRATION (BREATHING) OF VOMITUS INTO THE LUNGS MUST
AVOIDED AS EVEN SMALL QUANTITIES MAY RESULT IN ASPIRATION PNEUMONITIS.

IS AND SYMPTOMS
TATION AS NOTED ABOVE. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM) DEPRESSION MAY BE
IDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONCIOUSNESS AND DEATH
AY OCCUR. ASPIRATION PNEUMONITIS MAY BE EVIDENCED BY COUGHING, LABORED BREATHING AND CYANOSIS
BLUISH SKIN); IN SEVERE CASES DEATH MAY OCCUR.

AVATED MEDICAL CONDITIONS
EXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

ECTION VI FOR SUPPLEMENTAL INFORMATION.

ON IV OCCUPATIONAL EXPOSURE LIMITS

OSHA. PEL/TWA	PEL/CEILING	ACGIH TLV/TWA	TLV/STEL	OTHER
500 PPM		100 PPM	200 PPM	

COMMEND THAT LIMITS FOR STODDARD SOLVENT BE USED AS A GUIDE.

ON V EMERGENCY AND FIRST AID PROCEDURES

E NTACT
S EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

N CONTACT
NOVE CONTAMINATED CLOTHING/SHOES. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER.
RRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED.

ALATION
OVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL
PIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

ES ON
NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT
IRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION.*

1 PHYSICIAN
MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE
UCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH
LOS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A
ED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

IO VI SUPPLEMENTAL HEALTH INFORMATION

RATS EXPOSED FOR 90 DAYS BY INHALATION TO VAPORS OF SOLVENTS SIMILAR TO COMPONENT 1 SHOWED
EN OF KIDNEY DAMAGE. THE RELEVANCE OF THIS EFFECT TO MAN IS UNKNOWN. IN ONE OF THE STUDIES
ADE ANEMIA WAS ALSO OBSERVED.

EXPOSED FOR 4 MONTHS TO 1700 PPM OF A SOLVENT SIMILAR TO COMPONENT 2 SHOWED EVIDENCE OF MILD
SE TO THE LIVER, LUNGS AND KIDNEYS. THESE EFFECTS WERE NOT SEEN IN RATS EXPOSED FOR ONE YEAR
O PM OF ANOTHER SIMILAR SOLVENT. RATS EXPOSED TO VAPORS OF A SIMILAR SOLVENT DURING
AN SHOWED EMBRYO/FETOTOXICITY AT CONCENTRATIONS PRODUCING MATERNAL TOXICITY.

TAG CHEMICALS INC.

95%

PRODUCT NAME: MINERAL SPIRITS 135

SECTION VII PHYSICAL DATA

BOILING POINT: 330-390 (DEG F)

SPECIFIC GRAVITY: 0.78 (H2O=1)

VAPOR PRESSURE: 16*@100 DEG (MM HG)

MELTING POINT: NOT AVAILABLE (DEG F)

SOLUBILITY: (IN WATER) NEGLIGIBLE

VAPOR DENSITY: 4.8* (AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): <0.1*

*ESTIMATED

APPEARANCE AND ODOR:
LIGHT COLORED LIQUID. HYDROCARBON ODOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:
114 DEG. F (TCC)

FLAMMABLE LIMITS /% VOLUME IN AIR
LOWER: 1 UPPER: 6

EXTINGUISHING MEDIA
USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SUFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS
CAUTION. COMBUSTIBLE. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS). INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS
CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

SECTION IX REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING
AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING MINIMIZE CONTACT

RODUCT NAME: MINERAL SPIRITS 135

DITIONAL PROTECTIVE MEASURES
USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA, THEN LAUNDER BEFORE REUSING.

SECTION XI ENVIRONMENTAL PROTECTION

LL OR LEAK PROCEDURES
CAUTION. COMBUSTIBLE. *** LARGE SPILLS *** ELIMINATE POTENTIAL SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATOR AND OTHER PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP IDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING NTAINERS AND SEAL TIGHTLY FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTION AS ABOVE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND PL CE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.

SECTION XII SPECIAL PRECAUTIONS

EP LIQUID AND VAPOR AWAY—FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AN TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY MULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.

CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, D, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS.

A IC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT.

SECTION XIII TRANSPORTATION REQUIREMENTS

PARTMENT OF TRANSPORTATION CLASSIFICATION:
OMBUSTIBLE LIQUID

O . PROPER SHIPPING NAME:
TI LEUM NAPHTHA

HE REQUIREMENTS:
55. GUIDE SHEET 27.

CT ON XIV OTHER REGULATORY CONTROLS

MPONENT #2 IS THE SUBJECT OF A TSCA SECTION 4 TEST RULE. EXPORT OF THIS PRODUCT IS THEREFORE OH ITED WITHOUT NOTIFICATION TO EPA. THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA VE ORY OF CHEMICAL SUBSTANCES.

CTION XV SPECIAL NOTES

TION XI - ENVIRONMENTAL PROTECTION HAS BEEN REVISED. THE INFORMATION IN THE "WASTE DISPOSAL" "ENVIRONMENT PROTECTION" HAS BEEN REMOVED AND INCLUDED IN THE ATTACHED ENVIRONMENTAL DATA ET IN ACCORDANCE WITH SARA TITLE III, SECTION 313. THE EDS SHOULD ALWAYS BE COPIED AND SENT H IE MSDS.

42271 (RUN 07/18/91)

SAFETY-KLEEN CORP.
PREQUALIFICATION EVALUATION
MATERIAL ANALYSIS

FLUID RECOVERY
CAMPBELL SOUP CO

COMPLETE: 07/18/91
CONTROL#: 0102253-9
SAMPLE# : 127172

ACCEPT
NO ATTACHMENT

** FLUID RECOVERY **

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	DARK BROWN
WATER CONTENT	:	9.4 WT%
NON-VOLATILE RESIDUE	:	8.2 WT% DESCRIPTION: OIL
FLAMMABILITY	:	FLASHED AT 100 F BY SETAFLASH
FLAMMABILITY	:	FLASHED AT 140 F BY SETAFLASH
PH SCREEN:		
PH		7.0
RADIOACTIVITY	:	EXTRACT BY METER 6.4
COMMENTS: SMALL AMOUNT OF LIGHT BROWN SOLIDS ON BOTTOM	:	NONE DETECTED

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT:		[redacted]
TOTAL FLUORINE	F : <	0.1 WT%
TOTAL BROMINE	BR: <	0.1 WT%

ASH UPON COMBUSTION:	<	0.1 WT%
TOTAL CHLORINE CL:	<	0.1 WT%
TOTAL SULFUR S :	<	0.1 WT%

"O" Thinner

BTU/Lb

PRODUCT NAME: MINERAL SPIRITS 135

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

DATE PREPARED: JANUARY 26, 1988

BE SAFE

READ OUR PRODUCT
SAFETY INFORMATION ...AND PASS IT ON
(PRODUCT LIABILITY LAW
REQUIRES IT)

J. C. HILLETT

SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P. O. BOX 4320
HOUSTON, TX 77210

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

DHWM Storage
Box No. 91

DMWM - HW

LIMITED SUBSURFACE SOIL INVESTIGATION
FORMER HOLDING PIT AREA

February 16, 2000

Prepared For:

Campbell Soup Company
Napoleon Facility
East Maumee Drive
Napoleon, Ohio 43545

HSI GEOTRANS
A TETRA TECH COMPANY
3131 South State Street
Ann Arbor, Michigan 48108

LIMITED SUBSURFACE SOIL INVESTIGATION
FORMER HOLDING PIT AREA

February 16, 2000

Prepared For:

Campbell Soup Company
Napoleon Facility
East Maumee Drive
Napoleon, Ohio 43545

Prepared By:

HSI GeoTrans
3131 South State Street
Ann Arbor, Michigan 48108

Project No. P269

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FIGURES

Figure 1 Site Location

Figure 2 Location of Former Holding Pit

Figure 3 Soil Sample Locations

Figure 4 Approximate Extent of VOCs

TABLES

Table 1 PID Readings

Table 2 Soil Analytical Results

APPENDICES

Appendix A Soil Boring Logs

Appendix B Laboratory Reports

2.0 SITE DESCRIPTION

The Campbell Soup Company Napoleon facility is located on the south side of East Maumee Avenue, Napoleon, Henry County, Ohio. The facility is located at the southeast edge of Napoleon, on the south side of the Maumee River (Figure 1). The former sludge-holding pit, located in the area identified in Figure 2, was the subject of this investigation.

Sludge materials from container manufacturing processes were transported to an on-site holding area (former holding pit) and mixed with sand prior to transport to an off-site disposal facility. The holding pit was 20-feet wide by 30-feet long by 2.5-feet deep, and was excavated in an area consisting of sand and clay fill. The holding pit reportedly was lined with natural clay obtained on-site. This clay liner was compacted prior to introducing any sludge materials.

The holding pit was first put to use in 1981. It was removed from service in 1983 by excavating and disposing of the liner clay, then covering the excavated area with an additional 4- to 5-feet of new fill material. The solids and sludge materials temporarily placed in the holding pit were potentially exposed to volatile organic compounds (VOCs). Campbell Soup Company sought to determine whether VOCs were introduced to the soil beneath the former holding pit.

3.0 METHODS AND SAMPLE COLLECTION

HSG and Campbell Soup Company representatives identified the approximate location of the former holding pit. A 20-foot by 30-foot sampling grid with 10-foot grid intervals was marked over the site. The grid dimensions were based on the estimated size of the former holding pit. Twelve soil sample boring locations were staked and labeled - one at each of the grid nodes. Four additional soil sample boring locations were marked beyond the suspected edges of the grid to account for any inaccuracy in grid placement.

A Geoprobe $_{TM}$ soil-boring rig was used to collect continuous soil samples at each sample node location. Soil samples were retrieved from each boring in four-foot intervals. Soil lithology was characterized and recorded on a boring log (Appendix A) by an HSG field geologist. A photoionization detector (PID) was used to screen soil samples at one-foot intervals at each boring. PID results are indicated in Table 1, and in the soil boring logs.

Select soil samples were collected for laboratory analysis of volatile organic compounds (VOCs). Samples were placed in laboratory supplied containers, chilled with ice, and transported to the laboratory in accordance with standard laboratory protocol. All samples were submitted to Biological & Environmental Control Labs, Inc. (BEC), in Toledo, Ohio for analysis. BEC is an Ohio certified laboratory under the Voluntary Action Program. VOC analyses were conducted using standard method SW846 8260B.

Soil samples were collected from the 9.5- to 10-foot depth interval at each probe boring to determine whether VOCs have leached below the original holding pit bottom. During the investigation, PID readings indicated organic vapors near the northern and eastern portion of the grid. To determine the horizontal and vertical extent of soil contamination, six additional soil borings were advanced. Additional soil samples from various depths were submitted to the laboratory to determine what actual VOC concentrations in the affected soil. Soil sample locations are identified in Figures 2 and 3.

4.0 FINDINGS

4.1 General Observations

The former holding pit area is currently vacant and partially grass-covered. Several trees are located near the margins of the fill area surrounding the former holding pit. The fill area is elevated above the surrounding ground surface by approximately 10- to 15-feet and generally consists of fill from previous construction projects and other site activities.

Generally, the lithology under the former holding pit consists of clay till, silt and some sand. Some of the sand identified between 4- and 6-feet was yellow-brown, coarse grained and well sorted. This sand may represent residual drying sand used as mixing material in the former holding pit. Lithologic logs for each Geoprobe $_{TM}$ soil boring are included as Appendix A.

Local shallow soil contains a preponderance of clay. Previous soil borings advanced by Campbell Soup Company reportedly identified stiff clay at 4 feet below grade – and at least 10 feet thick - near the Boiler House (approximately 300 feet northeast of the holding pit). The high clay content of the local sediments is consistent with the former flood plain environments characterizing this area.

The depth to groundwater under the site was not determined. However, publications available through the Ohio State University Extension program indicate that groundwater in Henry County is obtained primarily from a carbonate aquifer located beneath 40 to 85 feet of glacial drift. The City of Napoleon uses surface water as its public water supply source.

4.2 PID Readings

PID readings indicated that organic vapors were present in soil samples collected in the north and northeastern portion of the original grid pattern (PB-3, PB-4, PB-5, PB-9, PB-14, and PB-15), extending away from the grid in the north (PB-18 and PB-21) and northwest (PB-1 and PB-19)

directions. In general the highest PID readings were recorded for samples obtained at depth intervals between 4- and 7-feet below ground surface. The maximum observed PID reading was 2,000 parts per million (ppm) recorded at the 6- to 7-foot depth interval in PB-15. PID readings dropped significantly at deeper depth intervals in each boring. The maximum bottom sample PID reading was observed in PB-18 at the 11- to 12-foot depth interval (64 ppm).

Soil samples from PB-8, PB-17, PB-20, and PB-21 contained organic vapors, but at relatively low concentrations. Samples collected from borings PB-2, PB-6, PB-7, PB-10, PB-11, PB-12, PB-13, and PB-16, did not yield detectable concentrations of organic vapors. Figure 4 presents the approximate horizontal extent of organic vapors in soil as determined by field PID readings. See Table 1 and Appendix A for field PID results.

4.3 Laboratory Results

Samples were collected from 9.5- to 10-foot depth intervals in each soil boring to verify VOC concentrations at depth. Additional soil samples were collected from shallower depths to better characterize the VOC distribution in affected soil. All samples were analyzed at the BEC laboratory in Toledo, Ohio.

4.3.1 Shallow Sample Results

Soil samples were collected from shallower depth intervals at PB-15, PB-20, PB-21, and PB-22. No VOCs were detected in the 7- to 8-foot depth interval from PB-22. Ethylbenzene was the only compound detected in PB-20 at 6 µg/kg.

The samples from PB-15 (6- to 7-foot interval) and PB-21 (8- to 9-foot interval) were collected from areas with high PID readings to determine the specific VOC compounds present in the soil, and their concentrations. Ethylbenzene, naphthalene, and xylenes were identified. The concentrations of

these compounds reported above the method detection limits in the shallower samples collected from PB-15 and PB-21 are summarized below:

Ethylbenzene	13,700 µg/kg at PB-15
	8,980 µg/kg at PB-21
Naphthalene	10,400 µg/kg at PB-15
	11,290 µg/kg at PB-21
Total xylenes	75,980 µg/kg at PB-15
	2570 µg/kg at PB-21

At both of these soil borings locations, VOC values decreased significantly in the samples collected from the deeper 9.5- to 10-foot depth interval.

4.3.2 Deep Sample Results

Laboratory results indicate that VOCs were below detection limits, or at relatively low concentrations at this depth horizon. However, VOCs were detected in the 9.5 to 10-foot soil samples obtained from borings along the northern and eastern edges of the sampling grid. A summary of all analytical results is presented in Table 2, and a copy of the laboratory report is provided in Appendix B.

VOCs were detected in soil samples obtained from the 9.5- to 10-foot depth horizon in borings PB-11, PB-12, PB-18, PB-19, PB-20 and PB-21. 2-Butanone (MEK), acetone, ethylbenzene, 4-methyl-2-pentenone (MIBK), naphthalene, and xylenes were identified. The concentrations of these compounds reported above the method detection limits at the 9.5- to 10-foot depth interval are summarized below:

MEK	62.6 µg/kg at PB-11

Acetone	63.5 µg/kg at PB-11
	70.6 µg/kg at PB-17
	70.3 µg/kg at PB-19
	54.4 µg/kg at PB-21
Ethybenzene	9.1 µg/kg at PB-15
	6.0 µg/kg at PB-20
MIBK	83.2 µg/kg at PB-19
Naphthalene	45.9 µg/kg at PB-19
Total Xylenes	38.4 µg/kg at PB-15
	25.1 µg/kg at PB-18
	8.2 µg/kg at PB-19

The Ohio EPA has not finalized a list of default cleanup or target levels applicable to industrial sites containing VOCs. Ohio action/cleanup levels are calculated using the ASTM Tier II Risk Based Corrective Action (RBCA) process with site-specific parameters. The scope of work completed for this investigation was limited, and was not intended to determine the site-specific parameters needed to calculate RBCA action/cleanup levels.

The Ohio EPA has published draft guidelines describing "single chemical cleanup numbers" for RCRA closures to generic residential standards. Action/cleanup levels for non-generic settings must be determine using the RBCA process and parameter-specific and site-specific information.

1.0 INTRODUCTION

This report presents the results and findings of an environmental investigation performed by HSI GeoTrans, Inc. (HSG), at the Campbell Soup Napoleon Facility. The investigation was conducted on December 2 and 3, 1999, in general accordance with HSG's letter proposal, dated November 5, 1999. The intent of the environmental investigation was to determine whether temporary on-site storage and handling of sludge from container manufacturing processes resulted in environmental impacts on soil and/or groundwater. Following is a project summary and descriptions of the field activities, methods, results, findings and recommendations.

Preliminary comparison of detected concentrations of VOCs with the generic residential cleanup numbers for RCRA closures suggest that soil concentrations of ethylbenzene, naphthalene, and xylenes in the shallow soil samples may exceed the generic values protective of groundwater.

5.0 CONCLUSIONS

HSI GeoTrans conducted a limited subsurface investigation at the Campbell Soup Company Napoleon facility. Based on our field observations and laboratory analysis, we conclude the following:

- The vertical and horizontal extent of VOCs in soil is limited and well defined. Approximately 300 to 700 cubic yards of soil are impacted. Therefore, excavation is an economically viable option. The disposal of soil off-site offers the benefit of immediate removal with no long term monitoring effort. However, off-site disposal carries the risk of future liability and simply transports the potential problem to another location.

- The maximum soil concentrations of ethylbenzene, naphthalene and xylenes were identified at 6 to 7 and 8 to 9 foot depths.

- MEK, acetone, ethylbenzene, MIBK, naphthalene, and xylenes were identified at 9.5 to 10 foot depths.

- The VOCs detected in the soil samples are amenable to bioremediation.

6.0 RECOMMENDATIONS

Based on our findings, HSI GeoTrans recommends the following:

- Calculate action/cleanup levels using the RBCA process with site specific parameters.

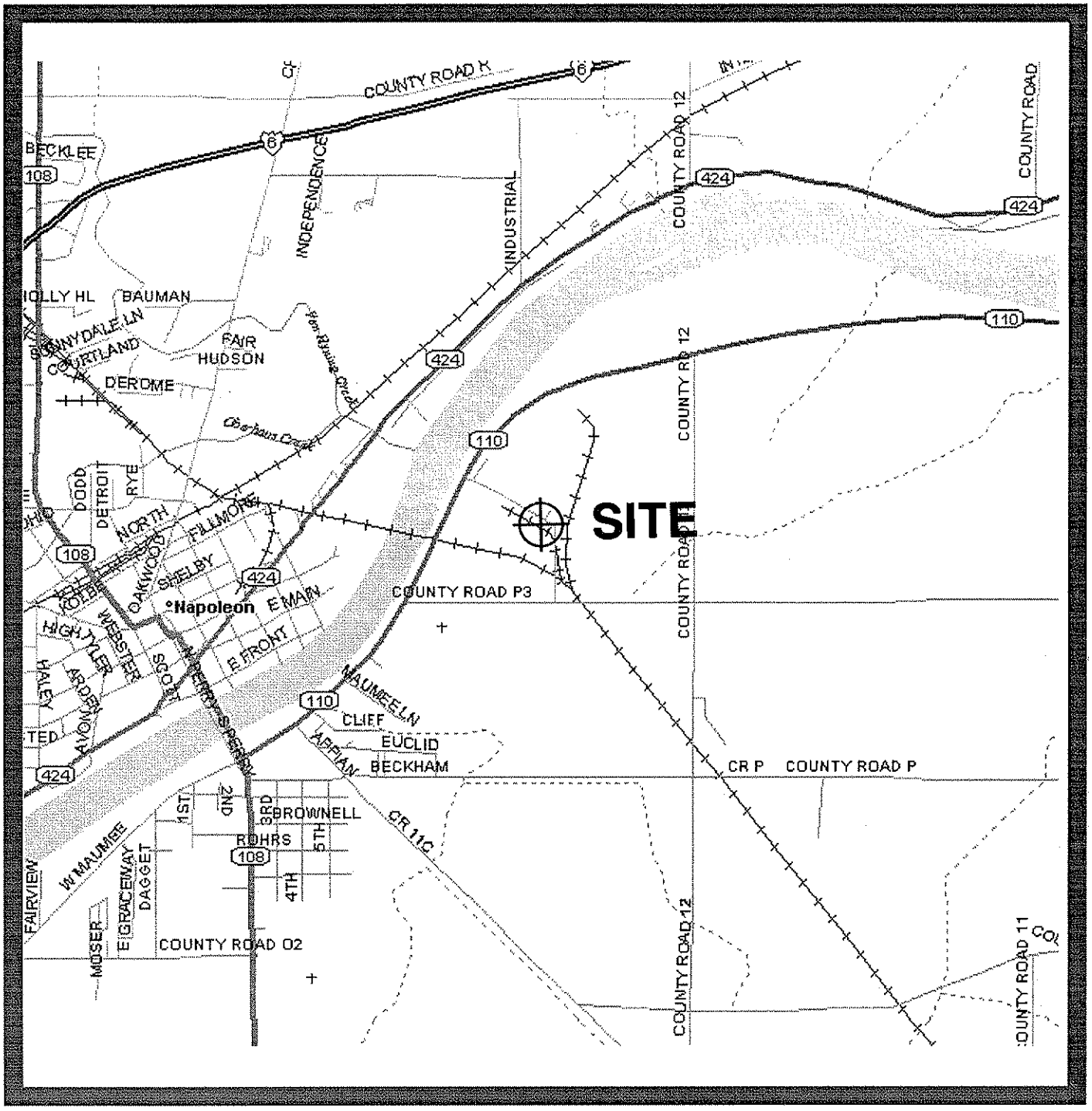
- Remediate soil beneath the former holding pit. Due to variable soil characteristics, excavate the soil for off-site disposal or ex-situ treatment.

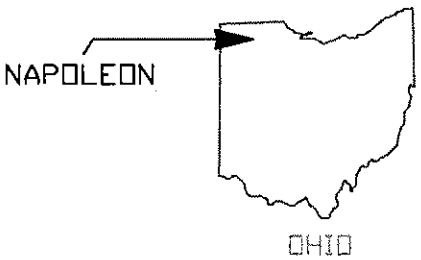
- To minimize future liability, implement land treatment or biopiles on-site to remediate the soil.

- Following excavation, collect sidewall and floor soil samples for laboratory analysis and comparison to site-specific action/cleanup levels.

- Monitor bioremediation of the excavated soil to verify VOC remediation.

FIGURES







660 0 1320'

SCALE: 1"=1320'

HSI GEOTRANS
A TETRA TECH COMPANY

CHECKED: AMM

DATE: 1/17/99

ENVIRONMENTAL INVESTIGATION
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

SITE LOCATION MAP

FIGURE 1

MACH5:P:PROJECTS/P269/CADD/FIG1.DWG 01/17/99 AMM 1



AERIAL PHOTOGRAPHY SOURCE: OHIO DEPARTMENT OF NATURAL RESOURCES GEOLOGICAL SURVEY DIVISION 4/06/98

HSI GEOTRANS
A TETRA TECH COMPANY

CHECKED: CAS | DATE:

400 200 0 400 800

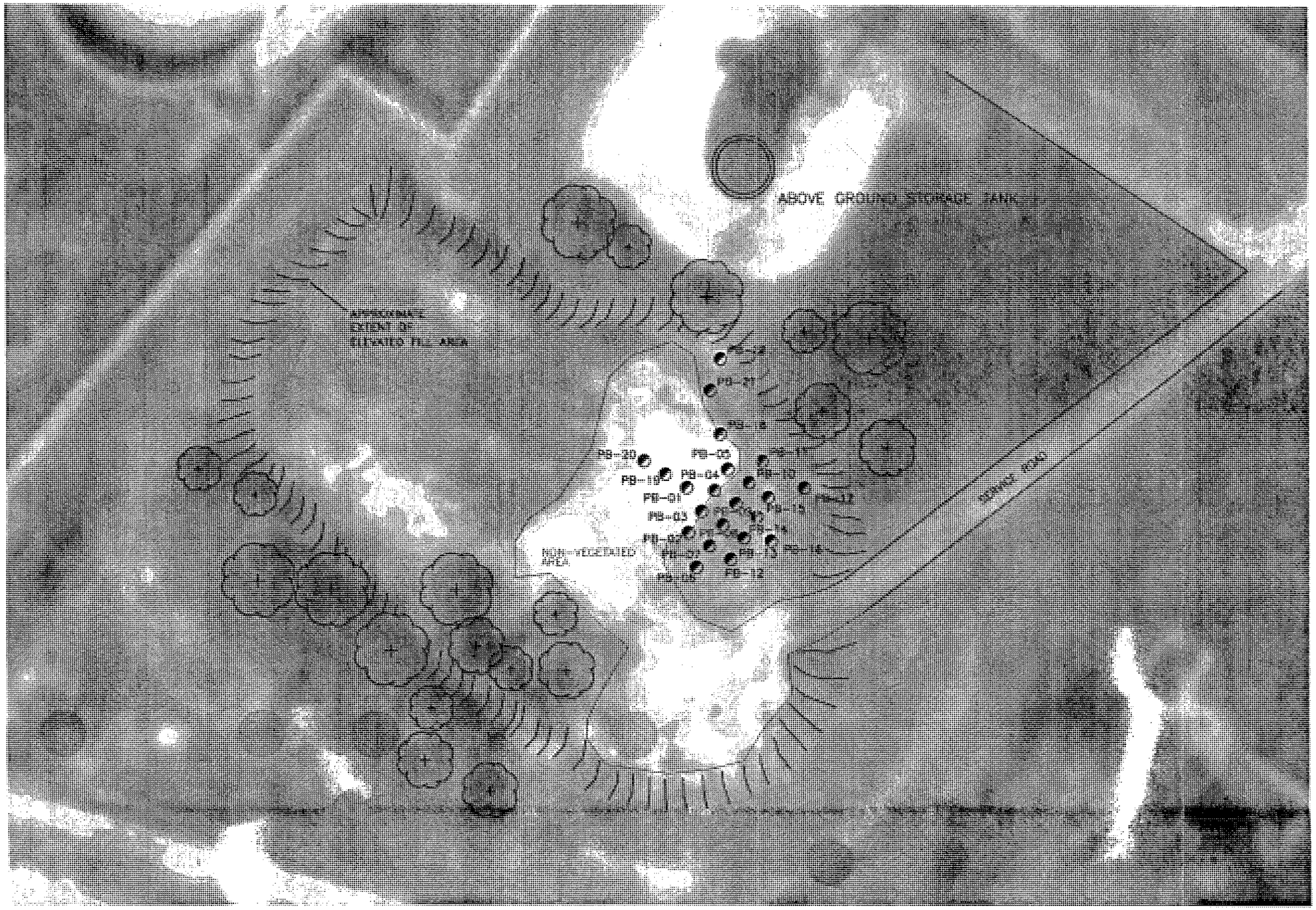
SCALE: 1"=400'

ENVIRONMENTAL INVESTIGATION
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

LOCATION OF FORMER HOLDING PIT

FIGURE 2

MACH5:P:/PROJECTS/P269/CADD/FIG2.DWG 02/16/00 MSK 2


ABOVE GROUND STORAGE TANK
APPROXIMATE EXTENT OF SURFACE FILL AREA
NON-VEGETATED AREA
PB-20
PB-19
PB-01
PB-03
PB-04
PB-05
PB-10
PB-11
PB-12
PB-13
PB-14
PB-15
PB-16
PB-17
PB-18
PB-21
PB-22
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PB-57
PB-58
PB-59
PB-60

N

PB-21	DEPTH: 8-9' BSG
PARAMETER	CONC. µg/kg
ETHYLBENZENE	8,980
NAPHTHALENE	11,290
TOTAL XYLENES	2,570

PB-21	DEPTH: 9.5-10' BSG
PARAMETER	CONC. µg/kg
ACETONE	54.4

PB-19	DEPTH: 9.5-10' BSG
PARAMETER	CONC. µg/kg
4-METHYL-2-PENTANONE	83.2
NAPHTHALENE	45.9
TOTAL XYLENES	8.2
ACETONE	70.3

PB-15	DEPTH: 6-7' BSG
PARAMETER	CONC. µg/kg
ETHYLBENZENE	13,700
NAPHTHALENE	10,400
TOTAL XYLENES	75,980

PB-22 38

PB-21 1377

PB-18 590

MEK 62.6

PB-11 0

PB-20 82

PB-05 986

PB-19 1080

Xylenes 11.4

PB-04 1068

PB-01 1298

PB-10 0

Acetone 70.6

PB-17 46

2000 PB-15

PB-09 1507

PB-03 737

951 PB-14

PB-08 8

PB-02 0

PB-13 0

PB-16 0

PB-07 0

Acetone PB-12 63.5

0

PB-06 0

9.1

38.4 >at 10'

LEGEND

PB-RC PROBE BORING SAMPLE LOCATION

1507 HIGHEST VOC READING FROM FIELD PID SCREENING

NOTE:
PID READINGS ARE REPORTED AS THE MAXIMUM AND ARE FROM VARIABLE DEPTHS.

PID READING REPORTED AT PB-19 IS FROM 4-5' BSG.

HSI GEOTRANS
A TETRA TECH COMPANY

CHECKED: CAS

DATE:

15 7.5 0 15 30

SCALE: 1"=15'

ENVIRONMENTAL INVESTIGATION
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

FORMER HOLDING PIT AND APPROXIMATE EXTENT OF VOCs

FIGURE 4

MACH5:P:/PROJECTS/P269/CADD/FIG2.DWG 02/16/00 MSK 2

TABLES

Table 1
Campbell Soup Company
PID Readings
Former Holding Pit

	PID Readings																				
LOCATION:	PB-1	PB-2	PB-3	PB-4	PB-5	PB-6	PB-7	PB-8	PB-9	PB-10	PB-11	PB-12	PB-13	PB-14	PB-15	PB-16	PB-17	PB-18	PB-19	PB-20	PB-21	PB-22
Depth (ft.)																						
0-1	0	0	0	5.3	0.8	0	0	0	0	0	0	0	0	0	0	0	1.1	2.6	4	0	0	0
1-2	0	0	5.4	7.3	1.3	0	0	0	0	0	0	0	0	0	0	0	1	5.5	5.2	0	0	0
2-3	157	0	2	55	295	0	0	0	0	0	0	0	0	55.8	0	0	1.2	13	7.7	0	13.3	0
3-4	100	0	662	1068	30.5	0	0	4.5	958	0	0	0	0	13.5	0	0	0.6	431	804	0	52	0
4-5	1298	0	737	284	986	0	0	7.6	340	0	0	0	0	951	0.5	0	0.7	590	1080	24	110	36
5-6	200	0	11	0	58.4	0	0	0	1507	0	0	0	0	61	174	0	3	520	100	37	90	6.1
6-7	0	0	5	1.1	33.2	0	0	0	18.2	0	0	0	0	6.7	2000	0	5.3	136	NA	82	156	6.4
7-8	0	0	0	0	14.5	0	0	0	NA	0	0	0	0	5.1	44	0	5	101	NA	22	569	37.8
8-9	0	0	NA	NA	11.3	0	0	0	0	0	0	NA	0	0	0	0	36	301	802	26	1377	NA
9-10	NA	NA	NA	11	3.5	NA	NA	NA	NA	0	NA	NA	0	0	NA	0	3.8	48	73	NA	177	8
10-11	0	0	NA	NA	3.5	0	0	0	0	NA	0	NA	NA	NA	0	NA	46	23	13	NA	NA	3.6
11-12	NA	NA	NA	NA	2.5	NA	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	64	NA	NA	NA	NA

Notes:

1. NA indicates that this interval was not sampled

Table 2
Campbell Soup Company
Former Holding Pit
Soil Analytical Results

Analytical Parameter	Analytical Method	LOCATION: MDL	Units	PB-1 9.5-10 ft.	PB-2 9.5-10 ft.	PB-3 9.5-10 ft.	PB-4 9.5-10 ft.	PB-5 9.5-10 ft.	PB-6 9.5-10 ft.	PB-7 9.5-10 ft.	PB-8 9.5-10 ft.	PB-9 9.5-10 ft.	PB-10 9.5-10 ft.	PB-11 9.5-10 ft.	PB-12 9.5-10 ft.	PB-13 9.5-10 ft.	PB-14 9.5-10 ft.	PB-15 6-7 ft.	PB-15 9.5-10 ft.	PB-16 9.5-10 ft.	PB-17 9.5-10 ft.	PB-18 9.5-10 ft.	PB-19 9.5-10 ft.	PB-20 6-7 ft.	PB-20 9.5-10 ft.	PB-21 8-9 ft.	PB-21 9.5-10 ft.	PB-22 7-8 ft.	DW (MI) Criteria
VOLATILE ANALYSIS																													
Acrolein	SW846 8260B	50	µg/Kg	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<5000	<50	<50	<50	<50	<50	<50	<50	<5000	<50	<50	2400
Acetone	SW846 8260B	50	µg/Kg	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	63.5	<50	<50	<5000	<50	<50	70.6	<50	70.3	<50	<50	<5000	54.4	<50	15,000
Acrylonitrile	SW846 8260B	50	µg/Kg	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<5000	<50	<50	<50	<50	<50	<50	<50	<5000	<50	<50	32
Benzene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	100
Bromodichloromethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	2,000 {W}
Bromoform	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	2,000 {W}
Bromomethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	200
2-Butanone (MEK)	SW846 8260B	50	µg/Kg	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	62.6	<50	<50	<50	<5000	<50	<50	<50	<50	<50	<50	<50	<5000	<50	<50	260,000
Carbon disulfide	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	16,000
Carbon tetrachloride	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	100
Chlorobenzene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	2000
Chlorodibromomethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	NA
Chloroethane	SW846 8260B	10	µg/Kg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	4,400
2-Chloroethyl Vinyl Ether	SW846 8260B	10	µg/Kg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	ID
Chloroform	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	2,000 {W}
Chloromethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	1,300
1,2-Dibromoethane (EDB)	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	2,000 {W}
Dibromoethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	NA
1,2-Dichlorobenzene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<25*	<5	<500	<5	<5	13,000
1,3-Dichlorobenzene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<25*	<5	<500	<5	<5	17,000
1,4-Dichlorobenzene	SW846 8260B	5	µg/Kg	<5 (4.4)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<25*	<5	<500	<5	<5	1,600
1,4-Dichloro-2-butene	SW846 8260B	10	µg/Kg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	<10	<10	<10	<50*	<10	<1000	<10	<10	NA
Dichlorodiflouromethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	93,000
1,1-Dichloroethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	18,000
1,2-Dichloroethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	100
1,1-Dichloroethene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	140
cis-1,2-Dichloroethene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	1,400
trans-1,2-Dichloroethene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	2,000
1,2-Dichloropropane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	100
cis-1,3-Dichloropropene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	NA
trans-1,3-Dichloropropene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	NA

Table 2
Campbell Soup Company
Former Holding Pit
Soil Analytical Results

Analytical Parameter	Analytical Method	LOCATION: MDL	Units	PB-1 9.5-10 ft.	PB-2 9.5-10 ft.	PB-3 9.5-10 ft.	PB-4 9.5-10 ft.	PB-5 9.5-10 ft.	PB-6 9.5-10 ft.	PB-7 9.5-10 ft.	PB-8 9.5-10 ft.	PB-9 9.5-10 ft.	PB-10 9.5-10 ft.	PB-11 9.5-10 ft.	PB-12 9.5-10 ft.	PB-13 9.5-10 ft.	PB-14 9.5-10 ft.	PB-15 6-7 ft.	PB-15 9.5-10 ft.	PB-16 9.5-10 ft.	PB-17 9.5-10 ft.	PB-18 9.5-10 ft.	PB-19 9.5-10 ft.	PB-20 6-7 ft.	PB-20 9.5-10 ft.	PB-21 8-9 ft.	PB-21 9.5-10 ft.	PB-22 7-8 ft.	DW (MI) Criteria
Ethyl Acetate	SW846 8260B	10	µg/Kg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	130000
Ethyl Benzene	SW846 8260B	5	µg/Kg	<5 (2.4)	<5	<5	<5	<5 (2.0)	<5	<5	<5	<5	<5	<5	<5	<5	<5	13700	9.1	<5	<5	<5 (4.3)	<5	6	<5	8980	<5	<5	1500
Ethyl Ether	SW846 8260B	10	µg/Kg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	NA
Ethyl Methacrylate	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	NA
2-Haxanone	SW846 8260B	10	µg/Kg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	20,000
Methylene chloride	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	100
Methyl iodide	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	NA
4-Methyl-2-pentanone (MIBK)	SW846 8260B	50	µg/Kg	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<5000	<50	<50	<50	<50	83.2	<50	<50	<5000	<50	<50	36,000
Naphthalene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	10400	<5	<5	<5	<5	45.9	<25*	<5	11290	<5	<5	17,000
Styrene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	2,700
1,1,1,2-Tetrachloroethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	660
1,1,2,2-Tetrachloroethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	86
Tetrachloroethene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	100
Tetrahydrofuran	SW846 8260B	10	µg/Kg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	4800
Toluene	SW846 8260B	5	µg/Kg	<5 (2.2)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	16,000
1,1,1-Trichloroethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	4,000
1,1,2-Trichloroethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	100
Trichloroethene	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	100
Trichloroflouromethane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	52,000
1,1,2-Trichloro-1,2,2-Triflouroethane (Freon 113)	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	560000
1,2,3-Trichloropropane	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<25*	<5	<500	<5	<5	840
Vinyl acetate	SW846 8260B	10	µg/Kg	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	<10	<10	<10	<10	<10	<1000	<10	<10	13000
Vinyl chloride	SW846 8260B	5	µg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	<5	<5	<5	<5	<5	<500	<5	<5	40
m&p-Xylenes	SW846 8260B	5	µg/Kg	8.3	<5	<5 (2.8)	<5	<5	<5	<5	<5	<5 (4.8)	<5	<5	<5	<5	<5	75400	32.3	<5	<5 (2.1)	18.1	8.2	<5 (2.8)	<5	2570	<5	<5	
o Xylenes	SW846 8260B	5	µg/Kg	<5 (3.1)	<5	<5	<5	<5 (2.2)	<5	<5	<5	<5	<5	<5	<5	<5	<5	580	6.1	<5	<5	7	<5 (3.2)	<5	<5	<500 (200)	<5	<5	5600
PID Field Measurement	microtip	0	ppm	0	0	na	11	3.5	0	0	0	0	0	0	0	0	0	2000	0	0	3.8	48	73	82	26	1377	0	0	NA

Notes:

1. Generic Residential cleanup criteria as listed in MDEQ Part 201Operational Memorandum #18, May 28,1999.
2. "ND" denotes not detected at or above the target method detection level ("TMDL")
3. "NA" = No criteria exists for this parameter
4. M = Calculated criterion is below the analytical Target Detection Limit (TDL)
5. W = Concentrations of Trihalomethanes in groundwater must be added together to determine compliance with State of Michigan Drinking Water Standard of 100 ug/L

APPENDICES

Appendix A

Soil Boring Logs

HSI GEOTRANS A TETRA TECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL # :	PB-1
DRILLING CO: Alliance Drilling		LOCATION: 10 ft. north of grid		CLIENT/SITE NAME:	Campbell's Soup
DRILLER: Jim Kralick				HSIG JOB#:	P269.101
DRILL RIG: Geoprobe		DATE:	12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV: Photovac 2020 10.6		LOGGED BY:	AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION): Not encountered		WEATHER:	40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL: N/A		SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION): N/A		HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.): N/A				HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): Groundwater not encountered					

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		—	100%	0	Brown, damp, firm, friable CLAY with Silt, trace gravel.
		2 —	15:40	0	-becomes dry, crumbier, increased Silt.
		—		157	
		4 —		100	Olive gray, damp, firm CLAY with Silt, little Gravel.
		—	100%	1298	Black, dry, loose f-m SAND. Possibly cynder. Strong solvent odor.
		6 —	16:00	200	Olive gray, damp, very firm CLAY with Silt.
		—		0	-becomes loose, with crushed dolomite.
		8 —		0	-becomes brown in color
Sample for VOC evaluation 16:00		—	100%		
		10 —	16:00	0	S.A.A
		—			
		12 —		0	S.A.A
		—			End of boring @ 12 ft.
		14 —			
		—			
		16 —			
		—			
		18 —			
		—			
		20 —			

NOTES: Bentonite chips

HSI GEOTRANS A TETRA TECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL #: PB-2

DRILLING CO:	Alliance Drilling	LOCATION:	NW corner of grid	CLIENT/SITE NAME:	Campbell's Soup
DRILLER:	Jim Kralick			HSIG JOB#:	P269.101
DRILL RIG:	Geoprobe	DATE:	12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV:	Photovac 2020 10.6	LOGGED BY:	AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION):	Not encountered	WEATHER:	40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL:	N/A	SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION):	N/A	HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.):	N/A			HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):	Groundwater not encountered				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	100% 15:25	0	Brown, damp, firm, friable CLAY with Silt, trace Gravel.
				0	Brown with black areas, damp, firm, crumbly CLAY with Silt, trace Gravel.
		4		0	-less silt, more clay.
				0	Darker brown, firm CLAY with Silt.
		6	100% 15:30	0	Orange, damp, loose, f-m SAND with Silt.
				0	-less silt, more sand.
		8		0	Brown, damp, very firm CLAY with Silt.
				0	-turns olive gray in color
Sample for VOC evaluation 15:35		10	100% 15:35	0	Orange brown, loose, damp f-m Sand, trace silt.
					Olive gray, damp,firm CLAY with Silt.
		12		0	-becomes orange in color
					Olive gray, firm, crumbly CLAY with Silt.
		14			End of boring @ 12 ft.
		16			
		18			
		20			

NOTES: Bentonite chips

HSI GEOTRANS A TETRA TECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL #: **PB-3**

DRILLING CO:	Alliance Drilling	LOCATION:	2nd point, top row of grid	CLIENT/SITE NAME:	Campbell's Soup
DRILLER:	Jim Kralick			HSIG JOB#:	P269.101
DRILL RIG:	Geoprobe	DATE:	12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV:	Photovac 2020 10.6	LOGGED BY:	AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION):	Not encountered	WEATHER:	40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL:	N/A	SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION):	N/A	HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.):	N/A			HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):	Groundwater not encountered				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	100% 16:20	0 5.4 2	Brown, damp, firm, friable CLAY with Silt, trace Gravel. -dryer, less sand and more silt
		4		662	Olive gray with black areas, moist, softer CLAY with Silt. Solvent odor.
		6	100% 16:20	737 11	No black, CLAY with Sand.
		8		5 0	Olive gray, damp, firm CLAY with Silt. -increased sand
Sample for VOC evaluation 16:30		10	100% 16:30	NA	-becomes orange incolor
		12		NA	-becomes olive gray -orange in color again, with increased sand
		14			End of boring @ 12 ft.
		16			
		18			
		20			

NOTES: Bentonite chips

HSI GEOTRANS (A TETRA TECH COMPANY)	3131 South State Street, Ann Arbor, MI 48108	Fax: (734) 213-5008, Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL #: **PB-8**

DRILLING CO:	Alliance Drilling	LOCATION:	2nd point in middle row.	CLIENT/SITE NAME:	Campbell's Soup
DRILLER:	Jim Kralick			HSIG JOB#:	P269.101
DRILL RIG:	Geoprobe	DATE:	12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV:	Photovac 2020 10.6	LOGGED BY:	MSK	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION):	Not encountered	WEATHER:	40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL:	N/A	SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION):	N/A	HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.):	N/A			HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):	Groundwater not encountered				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		—	100%	0	Brown, damp, firm, friable CLAY with Silt, trace Gravel.
		—			Orange brown CLAY till. One limestone cobble.
		2 —	13:45	0	
		—		0	
		4 —		4.5	Olive gray, damp, firm CLAY with Silt, little Gravel.
		—	100%	7.6	
		—		0	Orange brown, SAND with Silt. Increased clay with depth.
		6 —	13:50		Olive gray, damp, very firm CLAY with Silt.
		—		0	
		8 —		0	-becomes pink in color, increased clay
		—	100%		
		—		0	
Sample for VOC evaluation 13:55		10 —	13:52		
		—		0	-becomes very hard, light gray mottles.
		12 —			
		—			End of boring @ 12 ft.
		14 —			
		—			
		16 —			
		—			
		18 —			
		—			
		20 —			

NOTES: Bentonite chips

HSI GEOTRANS A TETRA TECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL # : **PB-9**

DRILLING CO:	Alliance Drilling	LOCATION:	3rd point in middle row	CLIENT/SITE NAME:	Campbell's Soup
DRILLER:	Jim Kralick			HSIG JOB#:	P269.101
DRILL RIG:	Geoprobe	DATE:	12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV:	Photovac 2020 10.6	LOGGED BY:	MSK	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION):	Not encountered	WEATHER:	40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL:	N/A	SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION):	N/A	HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.):	N/A			HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): Groundwater not encountered

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	100% 14:00	0 0 0	Brown, damp, firm, friable CLAY with Silt, trace Gravel.
		4		958	Olive gray, CLAY with Silt and Sand. Strong solvent odor.
		6	100% 14:05	340 1507 18.2	Crushed rock -increased Clay with depth
		8			Olive gray-black, CLAY with tin from battery.
Sample for VOC evaluation 14:15		10	100% 14:15	0	Pink, damp, soft, CLAY, trace gray mottles. Trace Sand and little Silt.
		12		0	Olive gray till.
		14			End of boring @ 12 ft.
		16			
		18			
		20			

NOTES: Bentonite chips

HSI GEOTRANS A TETRA TECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL # : **PB-10**

DRILLING CO:	Alliance Drilling	LOCATION:	4th point in middle row	CLIENT/SITE NAME:	Campbell's Soup
DRILLER:	Jim Kralick			HSIG JOB#:	P269.101
DRILL RIG:	Geoprobe	DATE:	12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV:	Photovac 2020 10.6	LOGGED BY:	MSK	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION):	Not encountered	WEATHER:	40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL:	N/A	SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION):	N/A	HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.):	N/A			HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):	Groundwater not encountered				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	100% 14:30	0 0	Brown, damp, firm, friable CLAY with Silt, trace Gravel.
		4		0 0	Beige, dry, fine SAND, trace Clay. Slight burnt odor.
		6	100% 14:35	0 0 0	Olive gray, damp, friable, CLAY with Silt. Trace of f-c Sand. -increased clay and moisture
		8		0	
Sample for VOC evaluation 14:50		10	100% 14:40	0 0	Pink, damp, soft, CLAY, trace gray mottles. Trace Sand and little Silt. -trace of Sand
		12			
		14			End of boring @ 12 ft.
		16			
		18			
		20			

NOTES: Bentonite chips

HSI GEOTRANS A TETRA TECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL #: **PB-11**

DRILLING CO:	Alliance Drilling	LOCATION:	Far east point, 10' outside of grid	CLIENT/SITE NAME:	Campbell's Soup
DRILLER:	Jim Kralick			HSIG JOB#:	P269.101
DRILL RIG:	Geoprobe	DATE:	12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV:	Photovac 2020 10.6	LOGGED BY:	AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION):	Not encountered	WEATHER:	40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL:	N/A	SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION):	N/A	HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.):	N/A			HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):	Groundwater not encountered				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	100% 15:00	0 0	Brown, moist, friable, CLAY with Silt, little Sand and Gravel. -becomes dryer
		4		0 0	Brown, damp, loose f-m SAND with Gravel. Brown, firm, damp CLAY with Silt.
		6	100% 15:05	0 0 0 0	-thin 1" cinder seam Olive gray, damp, firm CLAY with Silt.
Sample for VOC evaluation 15:10		10	100% 15:10	0 0	Orange brown, damp, firm CLAY with Silt. -becomes olive gray
		12			End of boring @ 12 ft.
		14			
		16			
		18			
		20			

NOTES: Bentonite chips

HSI GEOTRANS A YETRA TECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL # : **PB-12**

DRILLING CO:	Alliance Drilling	LOCATION:	Southwest corner of grid	CLIENT/SITE NAME:	Campbell's Soup
DRILLER:	Jim Kralick			HSIG JOB#:	P269.101
DRILL RIG:	Geoprobe	DATE:	12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV:	Photovac 2020 10.6	LOGGED BY:	MSK	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION):	Not encountered	WEATHER:	Windy 35°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL:	N/A	SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION):	N/A	HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.):	N/A			HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): Groundwater not encountered

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		—	100%	0	Brown, damp, firm, friable CLAY with Silt, trace Gravel.
		2 —	10:40	0	Orange brown, damp, firm, CLAY with Silt. Little Gravel and trace Silt.
		—		0	
		4 —		0	-dark gray to black Cinder fill seam
		—	100%	0	Orange brown, damp, f-m SAND, with Silt and trace Clay.
		6 —	10:45	0	Brown gray, damp, firm CLAY with Silt and Gravel, trace Sand.
		—		0	Olive gray, black, CLAY with Silt, little Gravel, trace Sand.
		8 —		0	
		—	100%		Pink, damp, soft, CLAY, trace gray mottles. Trace Sand and little Silt.
Sample for VOC evaluation 11:03		10 —	10:48	0	Dark olive gray, firm, damp CLAY with little Silt.
		—			
		12 —			
		—			End of boring @ 12 ft.
		14 —			
		—			
		16 —			
		—			
		18 —			
		—			
		20 —			

NOTES: Bentonite chips

HSI GEOTRANS A TETRA TECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL #: **PB-13**

DRILLING CO:	Alliance Drilling	LOCATION:	2nd point bottom row of grid	CLIENT/SITE NAME:	Campbell's Soup
DRILLER:	Jim Kralick			HSIG JOB#:	P269.101
DRILL RIG:	Geoprobe	DATE:	12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV:	Photovac 2020 10.6	LOGGED BY:	MSK	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION):	Not encountered	WEATHER:	Windy 35°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL:	N/A	SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION):	N/A	HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.):	N/A			HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):	Groundwater not encountered				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	95% 11:05	0 0 0 0	Brown, moist, friable, CLAY with Silt, little Sand and Gravel.
		4		0	Little black cinder seam, < 1mm.
		6	100% 11:10	0 0 0 0	Orange brown, moist, loose, very fine SAND with Silt. Gray, brown dry-damp, firm CLAY with Silt.
Sample for VOC evaluation 11:25		8		0	
		10	100% 11:25	0 0	Pink, damp, soft, CLAY, trace gray mottles. Trace Sand and little Silt. Dark gray CLAY, slight reducing odor.
		12			End of boring @ 10 ft.
		14			
		16			
		18			
		20			

NOTES: Bentonite chips

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Ann Arbor, MI 48108 Phone: (734) 665-6000

BORING # / WELL # : **PB-14**

DRILLING CO: Alliance Drilling	LOCATION: 3rd point of bottom row of grid		CLIENT/SITE NAME: Campbell's Soup
DRILLER: Jim Kralick			HSIG JOB#: P269.101
DRILL RIG: Geoprobe	DATE: 12/2/99		SURFACE ELEVATION: Not Surveyed
PID MODEL & LAMP eV: Photovac 2020 10.6	LOGGED BY: MSK		CASING ELEVATION: Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION): Not encountered	WEATHER: Windy 35°		NORTHING / EASTING: Not Surveyed
SAND PACK INTERVAL: N/A	SEAL INTERVAL: N/A		SAMPLING METHOD: 2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION): N/A	HOLE ABANDONMENT: Bentonite Chips		GROUT INTERVAL: N/A
CASING (INTERVAL, TYPE, DIA.): N/A			HOLE DIA: 2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): Groundwater not encountered

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	100% 11:40	0 0 55.8	Brown, moist, friable, CLAY with Silt, little Sand and Gravel.
		4		13.5	Beige, dry, fine SAND, trace Clay.
		6	100% 11:50	951 61 6.7	Olive gray, black mottles, damp, firm CLAY, with Silt and little Sand. -solvent odor Olive gray, moist, loose SAND with Silt.
		8		5.1	Orange brown, CLAY with Silt, trace sand. -plywood pieces
Sample for VOC evaluation 12:00		10	100% 12:00	0 0	Pink, damp, soft, CLAY, trace gray mottles. Trace Sand and little Silt. -becomes brown
		12			End of boring @ 10 ft.
		14			
		16			
		18			
		20			

NOTES: Bentonite chips

HSI GEOTRANS A TETRATECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL #: **PB-15**

DRILLING CO:	Alliance Drilling	LOCATION:	Southeast corner of grid	CLIENT/SITE NAME:	Campbell's Soup
DRILLER:	Jim Kralick			HSIG JOB#:	P269.101
DRILL RIG:	Geoprobe	DATE:	12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV:	Photovac 2020 10.6	LOGGED BY:	MSK	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION):	Not encountered	WEATHER:	Windy 35°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL:	N/A	SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION):	N/A	HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.):	N/A			HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):	Groundwater not encountered				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	100% 12:15	0 0	Brown, moist, friable, CLAY with Silt, little Sand and Gravel.
		4		0	3" loose SAND layer with Silt.
		6	100% 12:20	0.5 174	Orange brown, hard CLAY with Silt, little Gravel, trace fine-med Sand. Olive gray, loose, damp, fine SAND with Silt, trace clay. Strong solvent odor.
		8		2,000 44	Olive gray, damp CLAY with Silt, trace Sand. Strong odor.
Sample for VOC evaluation 12:45		10	100% 12:25	0	Olive gray, damp, firm CLAY with Silt, trace Sand. Light gray and yellow brown mottles.
		12		0	-increased pink color -gray mottles
		14			End of boring @ 12 ft.
		16			
		18			
		20			

NOTES: Bentonite chips

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BORING # / WELL #: **PB-16**

DRILLING CO: Alliance Drilling	LOCATION: South side of grid	CLIENT/SITE NAME:	Campbell's Soup
DRILLER: Jim Kralick		HSIG JOB#:	P269.101
DRILL RIG: Geoprobe	DATE: 12/2/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV: Photovac 2020 10.6	LOGGED BY: AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION): Not encountered	WEATHER: Windy 35°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL: N/A	SEAL INTERVAL: N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION): N/A	HOLE ABANDONMENT: Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.): N/A		HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): Groundwater not encountered

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		—	100%	0	Brown, moist, friable, CLAY with Silt, little Sand and Gravel.
		2 —	10:10	0	
		—		0	Brown, damp, loose f-m SAND with Gravel.
		4 —		0	Brown, loose SILT with Gravel.
		—	100%	0	
		6 —	10:20	0	Orange brown, dry, loose, SAND with fine Gravel, trace Silt.
		—		0	Olive gray, damp, very firm CLAY with Gravel.
		8 —		0	-becomes brown in color
Sample for VOC evaluation 10:35		—	100%	0	Brown, damp, firm CLAY with Gravel.
		10 —	10:30	0	-increased moisture
		—			
		12 —			
		—			
		14 —			
		—			
		16 —			
		—			
		18 —			
		—			
		20 —			

NOTES: Bentonite chips

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DRILLING CO: Alliance Drilling		LOCATION: 10 ft. east of SE corner of grid		CLIENT/SITE NAME:	Campbell's Soup
DRILLER: Jim Kralick				HSIG JOB#:	P269.101
DRILL RIG: Geoprobe		DATE:	12/3/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV: Photovac 2020 10.6		LOGGED BY:	AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION): Not encountered		WEATHER:	Windy 40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL: N/A		SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION): N/A		HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.): N/A				HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): Groundwater not encountered					

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		—	100%	1.1	Brown, moist, friable, CLAY with Silt, little Sand and Gravel.
		2 —	9:45	1	
		—		1.2	
		4 —		0.6	Orange, dry, loose SAND, trace clay with silt.
		—	100%	0.7	-color turns brown
		6 —	9:50	3	
		—		5.3	-increased gravel and crushed rock
		8 —		5	Brown, dry, loose, fine SAND, trace Clay and Silt.
Sample for VOC evaluation 9:55		—	100%	36	
		10 —	9:55	3.8	Firm and damp, CLAY with Silt.
		—		46	
		12 —		NA	-becomes very firm, mottled
		—			End of boring @ 12 ft.
		14 —			
		—			
		16 —			
		—			
		18 —			
		—			
		20 —			

NOTES: Bentonite chips
Had PID problems, needed to re-calibrate.

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BORING # / WELL #: **PB-18**

DRILLING CO: Alliance Drilling	LOCATION: 10 ft. east of NE corner of grid	CLIENT/SITE NAME:	Campbell's Soup
DRILLER: Jim Kralick		HSIG JOB#:	P269.101
DRILL RIG: Geoprobe	DATE: 12/3/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV: Photovac 2020 10.6	LOGGED BY: AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION): Not encountered	WEATHER: Windy 40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL: N/A	SEAL INTERVAL: N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION): N/A	HOLE ABANDONMENT: Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.): N/A		HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): Groundwater not encountered

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		—	100%	2.6	Brown, damp, friable, CLAY with Silt, little Sand and Gravel.
		2 —	10:20	5.5	
		—		13	-becomes olive gray
		4 —		431	
		—	100%	590	Dark gray to black, damp, loose, CLAY with Silt. Strong solvent odor.
		6 —	10:25	520	
		—		136	Olive gray, damp, very firm CLAY with Silt. Some black spots.
		8 —		101	
Sample for VOC evaluation 10:35		—	100%	301	
		10 —	10:35	48	Orange brown, firm CLAY with Silt.
		—		23	-becomes softer and moist
		12 —		64	
		—			End of boring @ 12 ft.
		14 —			
		—			
		16 —			
		—			
		18 —			
		—			
		20 —			

NOTES: Bentonite chips

HSI GEOTRANS A TETRATECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL # :	**PB-19**
DRILLING CO: Alliance Drilling		LOCATION: 20 ft. north of grid (2nd N point)		CLIENT/SITE NAME:	Campbell's Soup
DRILLER: Jim Kralick				HSIG JOB#:	P269.101
DRILL RIG: Geoprobe		DATE:	12/3/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV: Photovac 2020 10.6		LOGGED BY:	AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION): Not encountered		WEATHER:	40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL: N/A		SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION): N/A		HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.): N/A				HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): Groundwater not encountered					

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	95% 10:45	4 5.2	Brown, damp, firm, friable CLAY with Silt, trace Gravel.
		4		7.7 804	-increased sand, becomes loose -strong solvent odor
		6	100% 11:00	1080 100	Black, loose, damp CLAY with Sand. Very strong odor. -becomes brown
		8	0%		No Sample
Sample for VOC evaluation 11:05		10	100% 11:10	802 73	Gray, dry, loose CLAY with Sand. Olive gray, damp, firm CLAY with Silt.
		12		13	-becomes orange
		14			End of boring @ 12 ft.
		16			
		18			
		20			

NOTES: Bentonite chips

HSI GEOTRANS A TETRA TECH COMPANY	3131 South State Street Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 665-6000	Page 1 of 1	BORING # / WELL #: **PB-21**

DRILLING CO:	Alliance Drilling	LOCATION:	NE of PB-18	CLIENT/SITE NAME:	Campbell's Soup
DRILLER:	Jim Kralick			HSIG JOB#:	P269.101
DRILL RIG:	Geoprobe	DATE:	12/3/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV:	Photovac 2020 10.6	LOGGED BY:	AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION):	Not encountered	WEATHER:	Windy 40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL:	N/A	SEAL INTERVAL:	N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION):	N/A	HOLE ABANDONMENT:	Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.):	N/A			HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):	Groundwater not encountered				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	100% 12:15	0 0	Brown, damp, firm, friable CLAY with Silt, trace Gravel.
		4		13.3 52	-increased sand
		6	100% 12:15	110 90	S.A.A
		8		156 569	Olive gray color, slight odor.
Sample for VOC evaluation 12:30		10	100% 12:30	1377 177	Black, damp, loose CLAY with Sand. Olive gray, moist, firm CLAY with Silt.
		12			End of boring @ 10 ft.
		14			
		16			
		18			
		20			

NOTES: Bentonite chips

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BORING # / WELL #: **PB-20**

DRILLING CO: Alliance Drilling	LOCATION: 15 ft. north of PB-19. 3rd N point	CLIENT/SITE NAME:	Campbell's Soup
DRILLER: Jim Kralick		HSIG JOB#:	P269.101
DRILL RIG: Geoprobe	DATE: 12/3/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV: Photovac 2020 10.6	LOGGED BY: AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION): Not encountered	WEATHER: Windy, starting to rain 35°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL: N/A	SEAL INTERVAL: N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION): N/A	HOLE ABANDONMENT: Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.): N/A		HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): Groundwater not encountered

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	100% 11:25	0	Brown, damp, firm, friable CLAY with Silt, trace Gravel.
		4		0	-red orange, crushed brick
		6	80% 11:30	0	Brown, damp, loose, CLAY with Silt and Gravel.
		8		24	S.A.A
				37	
				82	
Sample for VOC evaluation 11:30			100% 11:30	22	Black, damp, firm, CLAY with Silt. Cinder fill, with metal fragments. -increased Sand
		10		26	Cinder fill
		12			No recovery, suspected concrete or rock.
		14			
		16			
		18			
		20			

NOTES: Bentonite chips

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BORING # / WELL #: **PB-22**

DRILLING CO: Alliance Drilling	LOCATION: 13 ft. east of PB-21	CLIENT/SITE NAME:	Campbell's Soup
DRILLER: Jim Kralick		HSIG JOB#:	P269.101
DRILL RIG: Geoprobe	DATE: 12/3/99	SURFACE ELEVATION:	Not Surveyed
PID MODEL & LAMP eV: Photovac 2020 10.6	LOGGED BY: AMM	CASING ELEVATION:	Not Surveyed
DEPTH TO WATER (INITAL, COMPLETION): Not encountered	WEATHER: Windy 40°	NORTHING / EASTING:	Not Surveyed
SAND PACK INTERVAL: N/A	SEAL INTERVAL: N/A	SAMPLING METHOD:	2" Dia. Macro Sampler
WELL COVER (TYPE/COMPLETION): N/A	HOLE ABANDONMENT: Bentonite Chips	GROUT INTERVAL:	N/A
CASING (INTERVAL, TYPE, DIA.): N/A		HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): Groundwater not encountered

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	100%	0	Brown, damp loose SAND.
			13:10	0	
				0	Pink orange CLAY till.
		4		0	
			100%	36	-increased Sand
		6	13:10	6.1	
				6.4	CLAY till
		8		37.8	
Sample for VOC evaluation 13:15		10	100% 13:15	8	Olive gray CLAY till.
				3.6	
		12			
		14			End of boring @ 12 ft.
		16			
		18			
		20			

NOTES: Bentonite chips

Appendix B

Laboratory Reports

HSI GeoTrans
3131 S. State Street

Ann Arbor, MI 48108
ATTN: Mike Kovacich

bec laboratories, inc.
705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09288
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-1 - 9.5-10' - Date Sampled: 12/02/99 @ 16:05

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5 (4.4)
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Shirt

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HSI GeoTrans
3131 S. State Street

Ann Arbor, MI 48108
ATTN: Mike Kovacich

bec laboratories, inc.
705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09288
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-1 - 9.5-10' - Date Sampled: 12/02/99 @ 16:05

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5 (2.4)
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5 (2.2)
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Stuart

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lab no. 99T09288
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-1 - 9.5-10' - Date Sampled: 12/02/99 @ 16:05

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	8.3
o-Xylenes	5	< 5 (3.1)

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	94.2	70-121
Toluene-d8	95.2	81-117
4-Bromofluorobenzene	92.6	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

2) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantification. The value is an estimate only.

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p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-2 - 9.5-10' - Date Sampled: 12/02/99 @ 15:35

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

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12/14/99	JM	Edward J. Hurst

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p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-2 - 9.5-10' - Date Sampled: 12/02/99 @ 15:35

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

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p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-2 - 9.5-10' - Date Sampled: 12/02/99 @ 15:35

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	87.7	70-121
Toluene-d8	88.3	81-117
4-Bromofluorobenzene	91.3	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is th quantification limit for the sample.

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rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-3 - 9.5-10' - Date Sampled: 12/02/99 @ 16:30

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-3 - 9.5-10' - Date Sampled: 12/02/99 @ 16:30

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-3 - 9.5-10' - Date Sampled: 12/02/99 @ 16:30

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5 (2.8)
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	94.7	70-121
Toluene-d8	89.2	81-117
4-Bromofluorobenzene	92.7	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

2) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantification. The value is an estimate only.

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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-4 - 9.5-10' - Date Sampled: 12/02/99 @ 16:50

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

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lab no. 99T09291
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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-4 - 9.5-10' - Date Sampled: 12/02/99 @ 16:50

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-4 - 9.5-10' - Date Sampled: 12/02/99 @ 16:50

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	88.1	70-121
Toluene-d8	88.7	81-117
4-Bromofluorobenzene	89.8	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

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p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-5 - 9.5-10' - Date Sampled: 12/03/99 @ 9:00

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

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p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-5 - 9.5-10' - Date Sampled: 12/03/99 @ 9:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5 (2.0)
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-5 - 9.5-10' - Date Sampled: 12/03/99 @ 9:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	7.0
o-Xylenes	5	< 5 (2.2)

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	91.3	70-121
Toluene-d8	85.4	81-117
4-Bromofluorobenzene	94.8	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

2) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantification. The value is an estimate only.

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rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-6 - 9.5-10' - Date Sampled: 12/02/99 @ 13:10

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

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PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09293
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-6 - 9.5-10' - Date Sampled: 12/02/99 @ 13:10

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Kwiat

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HSI GeoTrans
3131 S. State Street

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ATTN: Mike Kovacich

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lab no. 99T09293
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-6 - 9.5-10' - Date Sampled: 12/02/99 @ 13:10

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	87.2	70-121
Toluene-d8	92.0	81-117
4-Bromofluorobenzene	96.4	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/14/99	JM	Edward Kuist

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lab no. 99T09294
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-7 - 9.5-10' - Date Sampled: 12/02/99

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Reid

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lab no. 99T09294
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-7 - 9.5-10' - Date Sampled: 12/02/99

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Kriet

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lab no. 99T09294
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-7 - 9.5-10' - Date Sampled: 12/02/99

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	94.4	70-121
Toluene-d8	89.4	81-117
4-Bromofluorobenzene	95.2	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/14/99	JM	Edward J. Priest

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b.e.c. laboratories

TWINSBURG OHIO | TOLEDO OHIO

☐ **RUSH-ADDITIONAL CHARGE**

RESULTS BY_____
MUST CONFIRM WITH LABORATORY

Analysis Per Quote No. _____

REPORT TO: MIKE KOVACICH	PHONE: (734) 213-5024
COMPANY: HSI GeoTrans	FAX: (734) 213-5008
ADDRESS: 3131 S. State Street, Ann Arbor, MI	STATE / ZIP: 48108
SITE LOCATION: Cambell Soup - Water Treatment	SAMPLER (PRINT):

MATRIX: WATER - W | SOIL - S | SLUDGE - SL | DRUMS - D | OTHER - O

SAMPLE IDENTIFICATION	DATE / TIME	COMPOSITE	GRAB	# CONTAINERS	SHIPPED VIA	MATRIX	CHARACTERISTICS							TOTALS							UST				OTHER		
							TCLP: METALS ☐ VOA ☐ SVOA ☐ PEST/HERB ☐	FLASH POINT: OPEN CUP ☐ CLOSED CUP ☐	PAINT FILTER	pH	CYANIDE: TOTAL ☐ REACTIVE ☐	SULFIDE: TOTAL ☐ REACTIVE ☐	SOLIDS: TOTAL ☐ DISS ☐ SUSP ☐ ASH ☐	METALS: RCRA (8) ☐ MICHIGAN (10) ☐	VOLATILES: 624 ☐ 8240 ☐ 8260B	SEMIVOLATILES: 625 ☐ 8270 ☐	PESTICIDES: 608 ☐ 8080 ☐	PCB'S: 608 ☐ 8080 ☐	HERBICIDES: 8150 ☐	PRIORITY POLLUTANTS: METALS ☐ VOA ☐ SVOA ☐ PEST/PCB ☐	BTEX: 602 ☐ 8020 ☐ PLUS MTBE ☐ PLUS TBA ☐	TPH: GRO ☐ DRO ☐ 418.1 ☐	PAH: 8100 ☐ 8270 ☐	LEAD: TCLP ☐ TOTAL ☐			
PB-1	9.5-10'	12-2-99 16:05		GRAB	1		S								X						99T09288						
PB-2	9.5-10'	12-2-99 15:35			1		S								X						99T09289						
PB-3	9.5-10'	12-2-99 16:50			1		S								X						99T09290						
PB-4	9.5-10'	12-2-99 16:50			1		S								X						99T09291						
PB-5	9.5-10'	12-3-99 9:00			1		S								X						99T09292						
PB-6	9.5-10'	12-2-99 13:10			1		S								X						99T09293						
PB-7	9.5-10'	12-2-99			1		S								X						99T09294						

COMMENTS AND SPECIAL HANDLING INSTRUCTIONS

Cooler temp: 2.5°C

RECEIVED BY LABORATORY: Edward Thirot — DATE: 12-3-99 — TIME: 7:30pm

	DATE	TIME		DATE	TIME
RECEIVED BY SAMPLER:			RECEIVED BY:		
RELINQUISHED BY: Steve Majewski	12-3-99	3:30	RECEIVED BY:		
RELINQUISHED BY:			RECEIVED BY:		

SAMPLE MAY BE RETURNED TO CLIENT AT BEC'S DISCRETION, UNLESS ARRANGEMENTS HAVE BEEN MADE PRIOR TO SAMPLE SUBMISSION.

HSI GeoTrans
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lab no. 99T09295
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-8 - 9.5-10' - Date Sampled: 12/02/99 @ 1:55

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Furst

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lab no. 99T09295
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-8 - 9.5-10' - Date Sampled: 12/02/99 @ 1:55

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	

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HST GeoTrans
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lab no. 99T09295
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-8 - 9.5-10' - Date Sampled: 12/02/99 @ 1:55

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	96.8	70-121
Toluene-d8	87.6	81-117
4-Bromofluorobenzene	92.2	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/14/99	JM	Edward Feigert

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lab no. 99T09296
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-9 - 9.5-10' - Date Sampled: 12/02/99 @ 2:25

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Kreit

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lab no. 99T09296
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-9 - 9.5-10' - Date Sampled: 12/02/99 @ 2:25

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Theriot

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lab no. 99T09296
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-9 - 9.5-10' - Date Sampled: 12/02/99 @ 2:25

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5 (4.8)
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	97.5	70-121
Toluene-d8	88.3	81-117
4-Bromofluorobenzene	93.7	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

2) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantification. The value is an estimate only.

date completed:	tech:	approved by:
12/14/99	JM	Edward Priest

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lab no. 99T09297
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-10 - 9.5-10' - Date Sampled: 12/02/99 @ 14:50

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Shuit

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lab no. 99T09297
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-10 - 9.5-10' - Date Sampled: 12/02/99 @ 14:50

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Theriot

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HST GeoTrans
3131 S. State Street

Ann Arbor, MI 48108
ATTN: Mike Kovacich

bec laboratories, inc.
705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09297
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-10 - 9.5-10' - Date Sampled: 12/02/99 @ 14:50

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	91.8	70-121
Toluene-d8	86.8	81-117
4-Bromofluorobenzene	87.2	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/14/99	JM	

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lab no. 99T09298

p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-11 - 9.5-10' - Date Sampled: 12/02/99 @ 15:10

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	62.6
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Priest

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lab no. 99T09298
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-11 - 9.5-10' - Date Sampled: 12/02/99 @ 15:10

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Shuert

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lab no. 99T09298
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-11 - 9.5-10' - Date Sampled: 12/02/99 @ 15:10

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	97.2	70-121
Toluene-d8	84.7	81-117
4-Bromofluorobenzene	93.5	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/14/99	JM	Edward Foust

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PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09299
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-12 - 9.5-10' - Date Sampled: 12/02/99 @ 11:03

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	63.5
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Kruse

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PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09299
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-12 - 9.5-10' - Date Sampled: 12/02/99 @ 11:03

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Theist

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lab no. 99T09299
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-12 - 9.5-10' - Date Sampled: 12/02/99 @ 11:03

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	96.7	70-121
Toluene-d8	92.7	81-117
4-Bromofluorobenzene	99.4	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/14/99	JM	

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lab no. 99T09300
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-13 - 9.5-10' - Date Sampled: 12/02/99 @ 11:40

ANALYSTS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Shuart

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PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09300
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-13 - 9.5-10' - Date Sampled: 12/02/99 @ 11:40

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	

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lab no. 99T09300
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-13 - 9.5-10' - Date Sampled: 12/02/99 @ 11:40

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	92.8	70-121
Toluene-d8	91.5	81-117
4-Bromofluorobenzene	96.4	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/14/99	JM	Edward Shuert

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lab no. 99T09301
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-14 - 9.5-10' - Date Sampled: 12/02/99 @ 12:00

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Theriot

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lab no. 99T09301
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-14 - 9.5-10' - Date Sampled: 12/02/99 @ 12:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Hunt

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lab no. 99T09301
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-14 - 9.5-10' - Date Sampled: 12/02/99 @ 12:00

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	100	70-121
Toluene-d8	89.9	81-117
4-Bromofluorobenzene	93.6	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/14/99	JM	

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b.e.c. laboratories

TWINSBURG OHIO | TOLEDO OHIO

☐ **RUSH**-ADDITIONAL CHARGE

RESULTS BY _____

MUST CONFIRM WITH LABORATORY

Analysis Per Quote No. _____

REPORT TO: MIKE KOVACICH

PHONE: (734) 213-5024

COMPANY: HSI GeoTrans

FAX: (734) 213-5008

ADDRESS: 3131 S. State Street, Ann Arbor

STATE: MI

ZIP: 48108

SITE LOCATION: Campbell Soup - Water Treatment

SAMPLER (PRINT)

MATRIX: WATER - W, SOIL - S, SLUDGE - SL, DRUMS - D, OTHER - O

CHARACTERISTICS: TCLP: METALS ☐ VOA ☐ SVOA ☐ PEST/HERB ☐; FLASH POINT: OPEN CUP ☐ CLOSED CUP ☐; PAINT FILTER; pH; CYANIDE: TOTAL ☐ REACTIVE ☐; SULFIDE: TOTAL ☐ REACTIVE ☐; SOLIDS: TOTAL ☐ DISS ☐ SUSP ☐ ASH ☐

TOTALS: METALS: RCRA (8) ☐ MICHIGAN (10) ☐; VOLATILES: 624 ☐ 8240 ☐ 8260B; SEMIVOLATILES: 625 ☐ 8270 ☐; PESTICIDES: 608 ☐ 8080 ☐; PCB'S: 608 ☐ 8080 ☐; HERBICIDES: 8150 ☐; PRIORITY POLLUTANTS: METALS ☐ VOA ☐ SVOA ☐ PEST/PCB ☐

UST: BTEX: 602 ☐ 8020 ☐ PLUS MTBE ☐ PLUS TBA ☐; TPH: GRO ☐ DRO ☐ 418.1 ☐; PAH: 8100 ☐ 8270 ☐; LEAD: TCLP ☐ TOTAL ☐

OTHER

SAMPLE IDENTIFICATION	DATE TIME	COMPOSITE	GRAB	# CONTAINERS	SHIPPED VIA	WATER - W	SOIL - S	SLUDGE - SL	DRUMS - D	OTHER - O	TCLP	FLASH POINT	PAINT FILTER	pH	CYANIDE	SULFIDE	SOLIDS	METALS	VOLATILES	SEMIVOLATILES	PESTICIDES	PCB'S	HERBICIDES	PRIORITY POLLUTANTS	BTEX	TPH	PAH	LEAD			
PB-21 9.5-10'	12-3-99 12:50			1															X						99T09309						
PB-20 6-7'	12-3-99 13:35			1															X						99T09310						
PB-21 8-9'	12-3-99 12:45			1															X						99T09311						
PB-21 9.5-10'	12-3-99 12:50			1															X						99T09312						
PB-22 7-8'	12-3-99 13:15			1															X						99T09313						

COMMENTS AND SPECIAL HANDLING INSTRUCTIONS

Cooler temp: 2.5°C

RECEIVED BY LABORATORY: Edward Shirat — DATE: 12-3-99 — TIME: 3:30pm

12-3-99 21

RECEIVED BY SAMPLER:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: [illegible]	12-3-99	3:30pm	RECEIVED BY:		
RELINQUISHED BY:			RECEIVED BY:		

SAMPLE MAY BE RETURNED TO CLIENT AT BEC'S DISCRETION, UNLESS ARRANGEMENTS HAVE BEEN MADE PRIOR TO SAMPLE SUBMISSION.

HSI GeoTrans
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Ann Arbor, MI 48108
ATTN: Mike Kovacich

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PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09307
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-15 - 6'-7' - Date Sampled: 12/03/99 @ 13:20

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 500
1,2,3-Trichloropropane	5	< 500
Vinyl acetate	10	< 1000
Vinyl chloride	5	< 500
m & p-Xylenes	5	75400
o-Xylenes	5	580

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	89.9	70-121
Toluene-d8	96.3	81-117
4-Bromofluorobenzene	95.5	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/15/99	JM	Edward Hurst

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lab no. 99T09302
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-15 - 9.5-10' - Date Sampled: 12/02/99 @ 12:45

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

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rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - ~~PB-15~~ - 6'-7' - Date Sampled: 12/03/99 @ 13:20

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 5000
Acrylonitrile	50	< 5000
Acetone	50	< 5000
Benzene	5	< 500
Bromodichloromethane	5	< 500
Bromoform	5	< 500
Bromomethane	5	< 500
2-Butanone (MEK)	50	< 5000
Carbon disulfide	5	< 500
Carbon tetrachloride	5	< 500
Chlorobenzene	5	< 500
Chlorodibromomethane	5	< 500
Chloroethane	10	< 1000
2-Chloroethyl Vinyl Ether	10	< 1000
Chloroform	5	< 500
Chloromethane	5	< 500
1,2-Dibromoethane (EDB)	5	< 500
Dibromomethane	5	< 500
1,2-Dichlorobenzene	5	< 500
1,3-Dichlorobenzene	5	< 500
1,4-Dichlorobenzene	5	< 500
1,4-Dichloro-2-butene	10	< 1000
Dichlorodifluoromethane	5	< 500
1,1-Dichloroethane	5	< 500
1,2-Dichloroethane	5	< 500

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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-~~15~~ - 6'-7' - Date Sampled: 12/03/99 @ 13:20

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 500
cis-1,2-Dichloroethene	5	< 500
trans-1,2-Dichloroethene	5	< 500
1,2-Dichloropropane	5	< 500
cis-1,3-Dichloropropene	5	< 500
trans-1,3-Dichloropropene	5	< 500
Ethyl Acetate	10	< 1000
Ethyl Benzene	5	13700
Ethyl Ether	10	< 1000
Ethyl methacrylate	5	< 500
2-Hexanone	10	< 1000
Methylene Chloride	5	< 500
Methyl iodide	5	< 500
4-Methyl-2-pentanone (MIBK)	50	< 5000
Naphthalene	5	10400
Styrene	5	< 500
1,1,1,2-Tetrachloroethane	5	< 500
1,1,2,2-Tetrachloroethane	5	< 500
Tetrachloroethene	5	< 500
Tetrahydrofuran	10	< 1000
Toluene	5	< 500
1,1,1-Trichloroethane	5	< 500
1,1,2-Trichloroethane	5	< 500
Trichloroethene	5	< 500
Trichlorofluoromethane	5	< 500

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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-15 - 9.5-10' - Date Sampled: 12/02/99 @ 12:45

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	9.1
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-16 - 9.5-10' - Date Sampled: 12/02/99 @ 10:35

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-16 - 9.5-10' - Date Sampled: 12/02/99 @ 10:35

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	99.2	70-121
Toluene-d8	92.6	81-117
4-Bromofluorobenzene	97.7	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

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p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Cambell Soup - Water Treatment - PB-17 - 9.5-10' - Date Sampled: 12/03/99

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	70.6
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

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rev: 0

SAMPLE
DESCRIPTION: Cambell Soup - Water Treatment - PB-17 - 9.5-10' - Date Sampled: 12/03/99

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

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rev: 0

SAMPLE
DESCRIPTION: Cambell Soup - Water Treatment - PB-17 - 9.5-10' - Date Sampled: 12/03/99

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5 (2.1)
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	103	70-121
Toluene-d8	84.2	81-117
4-Bromofluorobenzene	92.0	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

2) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantification. The value is an estimate only.

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lab no. 99T09305
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-18 - 9.5-10' - Date Sampled: 12/03/99

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

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lab no. 99T09305
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-18 - 9.5-10' - Date Sampled: 12/03/99

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5 (4.3)
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

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rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-18 - 9.5-10' - Date Sampled: 12/03/99

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	18.1
o-Xylenes	5	7.0

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	102	70-121
Toluene-d8	87.0	81-117
4-Bromofluorobenzene	96.1	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

2) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantification. The value is an estimate only.

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lab no. 99T09306
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-19 - 9.5-10' - Date Sampled: 12/03/99 @ 10:50

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	70.3
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

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p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-19 - 9.5-10' - Date Sampled: 12/03/99 @ 10:50

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	83.2
Naphthalene	5	45.9
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/14/99	JM	Edward Kuritz

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lab no. 99T09306
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-19 - 9.5-10' - Date Sampled: 12/03/99 @ 10:50

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	8.2
o-Xylenes	5	< 5 (3.2)

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	96.3	70-121
Toluene-d8	91.6	81-117
4-Bromofluorobenzene	93.6	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

2) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantification. The value is an estimate only.

date completed:	tech:	approved by:
12/14/99	JM	Edward J. Kuist

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lab no. 99T09310
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-20 - 6-7' - Date Sampled: 12/03/99 @ 13:35

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 25 *
1,3-Dichlorobenzene	5	< 25 *
1,4-Dichlorobenzene	5	< 25 *
1,4-Dichloro-2-butene	10	< 50 *
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/16/99	JM	Edward Hurst

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lab no. 99T09310
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-20 - 6-7' - Date Sampled: 12/03/99 @ 13:35

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	6.0
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 25 *
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/16/99	JM	Edward Kuntz

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p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-20 - 6-7' - Date Sampled: 12/03/99 @ 13:35

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 25 *
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5 (2.8)
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	94.9	70-121
Toluene-d8	89.3	81-117
4-Bromofluorobenzene	84.9	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

*2) A value reported as "less than" but at a higher value than the Method PQL has been elevated due to matrix effects.

3) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantification. The value is an estimate only.

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12/16/99	JM	Edward Kurtz

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p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - ~~PB-21~~ PB-20 - 9.5-10' - Date Sampled: 12/03/99 @ 12:50

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/16/99	JM	Edward Theriot

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p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - ~~PB-21~~ PB-20 - 9.5-10' - Date Sampled: 12/03/99 @ 12:50

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/16/99	JM	Edward Hunt

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rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment ~~PB-21~~ PB-20 - 9.5-10' - Date Sampled: 12/03/99 @ 12:50

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	98.3	70-121
Toluene-d8	88.2	81-117
4-Bromofluorobenzene	92.3	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

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lab no. 99T09311
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-21 - 8-9' - Date Sampled: 12/03/99 @ 12:45

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 5000
Acrylonitrile	50	< 5000
Acetone	50	< 5000
Benzene	5	< 500
Bromodichloromethane	5	< 500
Bromoform	5	< 500
Bromomethane	5	< 500
2-Butanone (MEK)	50	< 5000
Carbon disulfide	5	< 500
Carbon tetrachloride	5	< 500
Chlorobenzene	5	< 500
Chlorodibromomethane	5	< 500
Chloroethane	10	< 1000
2-Chloroethyl Vinyl Ether	10	< 1000
Chloroform	5	< 500
Chloromethane	5	< 500
1,2-Dibromoethane (EDB)	5	< 500
Dibromomethane	5	< 500
1,2-Dichlorobenzene	5	< 500
1,3-Dichlorobenzene	5	< 500
1,4-Dichlorobenzene	5	< 500
1,4-Dichloro-2-butene	10	< 1000
Dichlorodifluoromethane	5	< 500
1,1-Dichloroethane	5	< 500
1,2-Dichloroethane	5	< 500

date completed:	tech:	approved by:
12/15/39	JM	Edward Shuit

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lab no. 99T09311
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-21 - 8-9' - Date Sampled: 12/03/99 @ 12:45

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 500
cis-1,2-Dichloroethene	5	< 500
trans-1,2-Dichloroethene	5	< 500
1,2-Dichloropropane	5	< 500
cis-1,3-Dichloropropene	5	< 500
trans-1,3-Dichloropropene	5	< 500
Ethyl Acetate	10	< 1000
Ethyl Benzene	5	8980
Ethyl Ether	10	< 1000
Ethyl methacrylate	5	< 500
2-Hexanone	10	< 1000
Methylene Chloride	5	< 500
Methyl iodide	5	< 500
4-Methyl-2-pentanone (MIBK)	50	< 5000
Naphthalene	5	11290
Styrene	5	< 500
1,1,1,2-Tetrachloroethane	5	< 500
1,1,2,2-Tetrachloroethane	5	< 500
Tetrachloroethene	5	< 500
Tetrahydrofuran	10	< 1000
Toluene	5	< 500
1,1,1-Trichloroethane	5	< 500
1,1,2-Trichloroethane	5	< 500
Trichloroethene	5	< 500
Trichlorofluoromethane	5	< 500

date completed:	tech:	approved by:
12/15/39	JM	Edward Poirier

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p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-21 - 8-9' - Date Sampled: 12/03/99 @ 12:45

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 500
1,2,3-Trichloropropane	5	< 500
Vinyl acetate	10	< 1000
Vinyl chloride	5	< 500
m & p-Xylenes	5	2570
o-Xylenes	5	< 500 (200)

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	78.4	70-121
Toluene-d8	91.0	81-117
4-Bromofluorobenzene	110	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

2) A value in parenthesis following a "less than" value indicates the analyte was detectable but below the limit of quantification. The value is an estimate only.

3) A value reported as "less than" but at a higher value than the Method PQL has been elevated due to dilution of the sample done to prevent overloading of the view spectrometer.

date completed:	tech:	approved by:
12/15/39	JM	Edward Voiret

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rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-21 - 8'-9' - Date Sampled: 12/03/99 @ 12:55

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 5000
Acrylonitrile	50	< 5000
Acetone	50	< 5000
Benzene	5	< 500
Bromodichloromethane	5	< 500
Bromoform	5	< 500
Bromomethane	5	< 500
2-Butanone (MEK)	50	< 5000
Carbon disulfide	5	< 500
Carbon tetrachloride	5	< 500
Chlorobenzene	5	< 500
Chlorodibromomethane	5	< 500
Chloroethane	10	< 1000
2-Chloroethyl Vinyl Ether	10	< 1000
Chloroform	5	< 500
Chloromethane	5	< 500
1,2-Dibromoethane (EDB)	5	< 500
Dibromomethane	5	< 500
1,2-Dichlorobenzene	5	< 500
1,3-Dichlorobenzene	5	< 500
1,4-Dichlorobenzene	5	< 500
1,4-Dichloro-2-butene	10	< 1000
Dichlorodifluoromethane	5	< 500
1,1-Dichloroethane	5	< 500
1,2-Dichloroethane	5	< 500

date completed:	tech:	approved by:
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rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-21 - 8'-9' - Date Sampled: 12/03/99 @ 12:55

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)	
1,1-Dichloroethene	5	< 500	
cis-1,2-Dichloroethene	5	< 500	
trans-1,2-Dichloroethene	5	< 500	
1,2-Dichloropropane	5	< 500	
cis-1,3-Dichloropropene	5	< 500	
trans-1,3-Dichloropropene	5	< 500	
Ethyl Acetate	10	< 1000	
Ethyl Benzene	5	5990	
Ethyl Ether	10	< 1000	
Ethyl methacrylate	5	< 500	
2-Hexanone	10	< 1000	
Methylene Chloride	5	< 500	
Methyl iodide	5	< 500	
4-Methyl-2-pentanone (MIBK)	50	< 5000	
Naphthalene	5	7670	
Styrene	5	< 500	
1,1,1,2-Tetrachloroethane	5	< 500	
1,1,2,2-Tetrachloroethane	5	< 500	
Tetrachloroethene	5	< 500	
Tetrahydrofuran	10	< 1000	
Toluene	5	< 500	
1,1,1-Trichloroethane	5	< 500	
1,1,2-Trichloroethane	5	< 500	
Trichloroethene	5	< 500	
Trichlorofluoromethane	5	< 500	0

date completed:	tech:	approved by:
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lab no. 99T09308
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-21 - 8'-9' - Date Sampled: 12/03/99 @ 12:55

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 500
1,2,3-Trichloropropane	5	< 500
Vinyl acetate	10	< 1000
Vinyl chloride	5	< 500
m & p-Xylenes	5	1300
o-Xylenes	5	< 500

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	80.7	70-121
Toluene-d8	88.8	81-117
4-Bromofluorobenzene	107	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

2) A value reported as "less than" but at a higher value than the Method PQL has been elevated due to dilution of the sample done to prevent overloading of the mass spectrometer.

date completed:	tech:	approved by:
12/15/99	JM	Edward Kinst

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B.E.C. laboratories

TWINSBURG OHIO TOLEDO OHIO

☐ RUSH-ADDITIONAL CHARGE

RESULTS BY _____

MUST CONFIRM WITH LABORATORY

Analysis Per Quote No. _____

REPORT TO: MIKE KOVACICH
PHONE: (734) 213-5024
COMPANY: HSI GeoTrans
FAX: (734) 213-5008
ADDRESS: 3131 S. State St. Ann Arbor
STATE: MI
ZIP: 48108
SITE LOCATION: Combell Sanp-Treatment Plant
SAMPLER (PRINT):

SAMPLE IDENTIFICATION	DATE / TIME	COMPOSITE	GRAB	# CONTAINERS	SHIPPED VIA	MATRIX: WATER-W SOIL-S SLUDGE-SL DRUMS-D OTHER-O	CHARACTERISTICS: TCLP: METALS ☐ VOA ☐ SVOA ☐ PEST/HERB ☐	FLASH POINT: OPEN CUP ☐ CLOSED CUP ☐	PAINT FILTER	pH	CYANIDE: TOTAL ☐ REACTIVE ☐	SULFIDE: TOTAL ☐ REACTIVE ☐	SOLIDS: TOTAL ☐ DISSO SUSP ☐ ASH ☐	TOTALS: METALS: RCRA (8) ☐ MICHIGAN (10) ☐	VOLATILES: 624 ☐ 8240 ☐ 8260B	SEMIVOLATILES: 625 ☐ 8270 ☐	PESTICIDES: 608 ☐ 8080 ☐	PCB'S: 608 ☐ 8080 ☐	HERBICIDES: 8150 ☐	PRIORITY POLLUTANTS: METALS ☐ VOA ☐ SVOA ☐ PEST/PCB ☐	UST: BTEX: 602 ☐ 8020 ☐ PLUS MTBE ☐ PLUS TBA ☐	TPH: GRO ☐ DRO ☐ 418.1 ☐	PAH: 8100 ☐ 8270 ☐	LEAD: TCLP ☐ TOTAL ☐	OTHER
PB-15 9.5-10'	12-2-99 12:45		X	1											X					9912093 02				
PB-16	12-2-99 10:35			1											X					9912093 03				
PB-17	12-3-99			1											X					9912093 04				
PB-18	12-3-99			1											X					9912093 05				
PB-19	12-3-99 10:50			1											X					9912093 06				
PB-15 6-7'	12-3-99 15:20			1											X					9912093 07				
PB-21 8-9'	12-3-99 12:55			1											X					9912093 08				

COMMENTS AND SPECIAL HANDLING INSTRUCTIONS

Cooler temp: 2.5°C

RECEIVED BY SAMPLER:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY:	DATE 3:30 12-3-99	TIME	RECEIVED BY:	DATE	TIME
	DATE	TIME	RECEIVED BY:	DATE	TIME

RECEIVED BY LABORATORY — DATE 12-3-99 — TIME 3:30pm

SAMPLE MAY BE RETURNED TO CLIENT AT BEC'S DISCRETION, UNLESS ARRANGEMENTS HAVE BEEN MADE PRIOR TO SAMPLE SUBMISSION.

HSI GeoTrans
3131 S. State Street

Ann Arbor, MI 48108
ATTN: Mike Kovacich

bec laboratories, inc.
705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09312
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-21 - 9.5-10' - Date Sampled: 12/03/99 @ 12:50

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	54.4
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/16/99	JM	Edward Thierit

All reports are submitted as confidential communications. Authorization for duplication in whole or in part is reserved pending our written approval, as a mutual protection.

HST GeoTrans
3131 S. State Street

Ann Arbor, MI 48108
ATTN: Mike Kovacich

bec laboratories, inc.
705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09312
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-21 - 9.5-10' - Date Sampled: 12/03/99 @ 12:50

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/16/99	JM	Edward Kuriot

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PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09312
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-21 - 9.5-10' - Date Sampled: 12/03/99 @ 12:50

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	94.8	70-121
Toluene-d8	85.3	81-117
4-Bromofluorobenzene	92.4	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/16/99	JM	Edward J. Reid

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HSI GeoTrans
3131 S. State Street

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PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09313
p.o. no.

rev: 0

SAMPLE DESCRIPTION: Campbell Soup - Water Treatment - PB-22 - 7-8' - Date Sampled: 12/03/99 @ 13:15

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
Acrolein	50	< 50
Acrylonitrile	50	< 50
Acetone	50	< 50
Benzene	5	< 5
Bromodichloromethane	5	< 5
Bromoform	5	< 5
Bromomethane	5	< 5
2-Butanone (MEK)	50	< 50
Carbon disulfide	5	< 5
Carbon tetrachloride	5	< 5
Chlorobenzene	5	< 5
Chlorodibromomethane	5	< 5
Chloroethane	10	< 10
2-Chloroethyl Vinyl Ether	10	< 10
Chloroform	5	< 5
Chloromethane	5	< 5
1,2-Dibromoethane (EDB)	5	< 5
Dibromomethane	5	< 5
1,2-Dichlorobenzene	5	< 5
1,3-Dichlorobenzene	5	< 5
1,4-Dichlorobenzene	5	< 5
1,4-Dichloro-2-butene	10	< 10
Dichlorodifluoromethane	5	< 5
1,1-Dichloroethane	5	< 5
1,2-Dichloroethane	5	< 5

date completed:	tech:	approved by:
12/16/99	JM	Edward J. Kuriot

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HSI GeoTrans
3131 S. State Street

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PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09313
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-22 - 7-8' - Date Sampled: 12/03/99 @ 13:15

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1-Dichloroethene	5	< 5
cis-1,2-Dichloroethene	5	< 5
trans-1,2-Dichloroethene	5	< 5
1,2-Dichloropropane	5	< 5
cis-1,3-Dichloropropene	5	< 5
trans-1,3-Dichloropropene	5	< 5
Ethyl Acetate	10	< 10
Ethyl Benzene	5	< 5
Ethyl Ether	10	< 10
Ethyl methacrylate	5	< 5
2-Hexanone	10	< 10
Methylene Chloride	5	< 5
Methyl iodide	5	< 5
4-Methyl-2-pentanone (MIBK)	50	< 50
Naphthalene	5	< 5
Styrene	5	< 5
1,1,1,2-Tetrachloroethane	5	< 5
1,1,2,2-Tetrachloroethane	5	< 5
Tetrachloroethene	5	< 5
Tetrahydrofuran	10	< 10
Toluene	5	< 5
1,1,1-Trichloroethane	5	< 5
1,1,2-Trichloroethane	5	< 5
Trichloroethene	5	< 5
Trichlorofluoromethane	5	< 5

date completed:	tech:	approved by:
12/16/99	JM	Edward Sweet

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HSI GeoTrans
3131 S. State Street

Ann Arbor, MI 48108
ATTN: Mike Kovacich

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705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09313
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Campbell Soup - Water Treatment - PB-22 - 7-8' - Date Sampled: 12/03/99 @ 13:15

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (µg/Kg)	RESULT (µg/Kg)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5	< 5
1,2,3-Trichloropropane	5	< 5
Vinyl acetate	10	< 10
Vinyl chloride	5	< 5
m & p-Xylenes	5	< 5
o-Xylenes	5	< 5

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	95.5	70-121
Toluene-d8	88.1	81-117
4-Bromofluorobenzene	92.2	74-121

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/16/99	JM	Edward Kurtz

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HSI GeoTrans
3131 S. State Street

Ann Arbor, MI 48108
ATTN: Mike Kovacich

bec laboratories, inc.
705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09318
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Cambell Soup - Water Treatment - Trip Blank

ANALYSIS: VOA

PROCEDURE: The sample was analyzed as outlined in US EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, Method 8260B.

RESULTS:

COMPOUND	LOW LEVEL METHOD PQL (ug/L)	RESULT (ug/L)
Acrolein	10	< 10
Acrylonitrile	10	< 10
Acetone	10	< 10
Benzene	1	< 1
Bromodichloromethane	1	< 1
Bromoform	1	< 1
Bromomethane	1	< 1
2-Butanone (MEK)	10	< 10
Carbon disulfide	1	< 1
Carbon tetrachloride	1	< 1
Chlorobenzene	1	< 1
Chlorodibromomethane	1	< 1
Chloroethane	2	< 2
2-Chloroethyl Vinyl Ether	2	< 2
Chloroform	1	< 1
Chloromethane	1	< 1
1,2-Dibromoethane (EDB)	1	< 1
Dibromomethane	1	< 1
1,2-Dichlorobenzene	1	< 1
1,3-Dichlorobenzene	1	< 1
1,4-Dichlorobenzene	1	< 1
1,4-Dichloro-2-butene	2	< 2
Dichlorodifluoromethane	1	< 1
1,1-Dichloroethane	1	< 1
1,2-Dichloroethane	1	< 1

date completed:	tech:	approved by:
12/15/99	JM	Edward J. Furst

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HSI GeoTrans
3131 S. State Street

Ann Arbor, MI 48108
ATTN: Mike Kovacich

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705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09318
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Cambell Soup - Water Treatment - Trip Blank

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (ug/L)	RESULT (ug/L)
1,1-Dichloroethene	1	< 1
cis-1,2-Dichloroethene	1	< 1
trans-1,2-Dichloroethene	1	< 1
1,2-Dichloropropane	1	< 1
cis-1,3-Dichloropropene	1	< 1
trans-1,3-Dichloropropene	1	< 1
Ethyl Acetate	1	< 1
Ethyl Benzene	1	< 1
Ethyl Ether	2	< 2
Ethyl methacrylate	1	< 1
2-Hexanone	2	< 2
Methylene Chloride	1	< 1
Methyl iodide	1	< 1
4-Methyl-2-pentanone (MIBK)	10	< 10
Naphthalene	1	< 1
Styrene	1	< 1
1,1,1,2-Tetrachloroethane	1	< 1
1,1,2,2-Tetrachloroethane	1	< 1
Tetrachloroethene	1	< 1
Tetrahydrofuran	2	< 2
Toluene	1	< 1
1,1,1-Trichloroethane	1	< 1
1,1,2-Trichloroethane	1	< 1
Trichloroethene	1	< 1
Trichlorofluoromethane	1	< 1

date completed:	tech:	approved by:
12/15/99	JM	Edward J. Kiernat

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HSI GeoTrans
3131 S. State Street

Ann Arbor, MI 48108
ATTN: Mike Kovacich

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705 FRONT STREET • TOLEDO, OHIO 43605
PHONE: (419) 693-5307 • FAX: (419) 691-0418

lab no. 99T09318
p.o. no.

rev: 0

SAMPLE
DESCRIPTION: Cambell Soup - Water Treatment - Trip Blank

ANALYSIS: VOA

RESULTS: continued

COMPOUND	LOW LEVEL METHOD PQL (ug/L)	RESULT (ug/L)
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1	< 1
1,2,3-Trichloropropane	1	< 1
Vinyl acetate	2	< 2
Vinyl chloride	1	< 1
m & p-Xylenes	1	< 1
o-Xylenes	1	< 1

SURROGATES:

Compound	% Recovery	Acceptable Range
1,2-Dichloroethane-d4	84.9	76-114
Toluene-d8	92.0	88-110
4-Bromofluorobenzene	91.8	86-115

1) A value reported as "less than" indicates the analyte was not detected. The number is the quantification limit for the sample.

date completed:	tech:	approved by:
12/15/99	JM	

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b.e.c. laboratories

TWINSBURG OHIO TOLEDO OHIO

☐ **RUSH-ADDITIONAL CHARGE**

RESULTS BY_____

MUST CONFIRM WITH LABORATORY

REPORT TO

PHONE

COMPANY

FAX

ADDRESS

STATE ZIP

SITE LOCATION

SAMPLER (PRINT)

Analysis Per Quote No._____

SAMPLE IDENTIFICATION	DATE / TIME	COMPOSITE	GRAB	# CONTAINERS	SHIPPED VIA	MATRIX: WATER - W, SOIL - S, SLUDGE - SL, OTHER - O	CHARACTERISTICS: TCLP: METALS ☐ VOA ☐ SVOA ☐ PEST/HERB ☐; DRUMS - D; FLASH POINT: OPEN CUP ☐ CLOSED CUP ☐; PAINT FILTER; pH; CYANIDE: TOTAL ☐ REACTIVE ☐; SULFIDE: TOTAL ☐ REACTIVE ☐; SOLIDS: TOTAL ☐ DISS ☐ SUSP ☐ ASH ☐	TOTALS: METALS: RCRA (8) ☐ MICHIGAN (10) ☐; VOLATILES: 624 ☐ 8240 ☐ 8260; SEMIVOLATILES: 625 ☐ 8270 ☐; PESTICIDES: 608 ☐ 8080 ☐; PCB'S: 608 ☐ 8080 ☐; HERBICIDES: 8150 ☐; PRIORITY POLLUTANTS: METALS ☐ VOA ☐ SVOA ☐ PEST/PCB ☐	UST: BTEX: 602 ☐ 8020 ☐ PLUS MTBE ☐ PLUS TBA ☐; TPH: GRO ☐ DRO ☐ 418.1 ☐; PAH: 8100 ☐ 8270 ☐; LEAD: TCLP ☐ TOTAL ☐	OTHER
				1		S		X			
				1		S		X			
				1		S		X			
	9.5-10'	12-2-99		1		S		X			
	9.5-10'	1:3 PM		1		S		X			
	9.5-10'	12-2-99 13:10		1		S		X			
	9.5-10'	12-2-99		1		S		X			

COMMENTS AND SPECIAL HANDLING INSTRUCTIONS

Cooler Temp: 2.5°C

RECEIVED BY LABORATORY DATE 12-3-99 TIME 7:30pm

RECEIVED BY SAMPLER:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY:	DATE 12-3-99	TIME 3:30	RECEIVED BY:	DATE	TIME
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME

SAMPLE MAY BE RETURNED TO CLIENT AT BEC'S DISCRETION, UNLESS ARRANGEMENTS HAVE BEEN MADE PRIOR TO SAMPLE SUBMISSION.

b.e.c. laboratories

TWINSBURG OHIO | TOLEDO OHIO

☐ **RUSH**-ADDITIONAL CHARGE

RESULTS BY _____

MUST CONFIRM WITH LABORATORY

REPORT TO: Mike Kovalchik | PHONE: (419) 241-5461

COMPANY: [illegible] | FAX: (419) 381-5989

ADDRESS: [illegible] | STATE: [illegible] ZIP: 43608

SITE LOCATION: [illegible] | SAMPLER (PRINT): [illegible]

Analysis Per Quote No. _____

MATRIX: WATER - W | SOIL - S | SLUDGE - SL | DRUMS - D | OTHER - O

SAMPLE IDENTIFICATION	DATE / TIME	COMPOSITE	GRAB	# CONTAINERS	SHIPPED VIA	MATRIX	CHARACTERISTICS							TOTALS							U S T				OTHER		
							TCLP: METALS ☐ VOA ☐ SVOA ☐ PEST/HERB ☐	FLASH POINT: OPEN CUP ☐ CLOSED CUP ☐	PAINT FILTER	pH	CYANIDE: TOTAL ☐ REACTIVE ☐	SULFIDE: TOTAL ☐ REACTIVE ☐	SOLIDS: TOTAL ☐ DISS ☐ SUSP ☐ ASH ☐	METALS: RCRA (8) ☐ MICHIGAN (10) ☐	VOLATILES: 624 ☐ 8240 ☐	SEMIVOLATILES: 625 ☐ 8270 ☐	PESTICIDES: 608 ☐ 8080 ☐	PCB'S: 608 ☐ 8080 ☐	HERBICIDES: 8150 ☐	PRIORITY POLLUTANTS: METALS ☐ VOA ☐ SVOA ☐ PEST/PCB ☐	BTEX: 602 ☐ 8020 ☐ PLUS MTBE ☐ PLUS TBA ☐	TPH: GRO ☐ DRO ☐ 418.1 ☐	PAH: 8100 ☐ 8270 ☐	LEAD: TCLP ☐ TOTAL ☐			
[illegible]	12-2-94 1:55	X	X	1		S								X													
[illegible]	12-2-94 2:25			1		S								X													
[illegible]	12-2-94 11:35			1		S								X													
[illegible]	12-2-94 15:10			1		S								X													
[illegible]	12-2-94 11:40			1		S								X													
[illegible]	12-2-94 13:10			1		S								X													
[illegible]	[illegible] 12:00			1		S								X													

COMMENTS AND SPECIAL HANDLING INSTRUCTIONS

Cooler temp = 2.5°C

RECEIVED BY LABORATORY: Edward Shurtz | DATE: 12-3-94 | TIME: 3:30pm

RECEIVED BY SAMPLER:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: [illegible]	DATE [illegible]	TIME [illegible]	RECEIVED BY:	DATE	TIME
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME

SAMPLE MAY BE RETURNED TO CLIENT AT BEC'S DISCRETION, UNLESS ARRANGEMENTS HAVE BEEN MADE PRIOR TO SAMPLE SUBMISSION.

b.e.c. laboratories

TWINSBURG OHIO — TOLEDO OHIO

☐ **RUSH**-ADDITIONAL CHARGE

RESULTS BY _____

MUST CONFIRM WITH LABORATORY

Analysis Per Quote No. _____

REPORT TO: Mike Kowalski	PHONE: (734) 213-5024
COMPANY: [illegible] Trans	FAX: (734) 213-5008
ADDRESS: [illegible] St. Ann Arbor	STATE: MI ZIP: 48108
SITE LOCATION: [illegible] up Furtnant Plant	SAMPLER (PRINT)

MATRIX: WATER - W, SOIL - S, SLUDGE - SL, DRUMS - D, OTHER - O

SAMPLE IDENTIFICATION	DATE TIME	COMPOSITE	GRAB	# CONTAINERS	SHIPPED VIA	CHARACTERISTICS: TCLP: METALS ☐ VOA ☐ SVOA ☐ PEST/HERB ☐	FLASH POINT: OPEN CUP ☐ CLOSED CUP ☐	PAINT FILTER	pH	CYANIDE: TOTAL ☐ REACTIVE ☐	SULFIDE: TOTAL ☐ REACTIVE ☐	SOLIDS: TOTAL ☐ DISS ☐ SUSP ☐ ASH ☐	TOTALS: METALS: RCRA (8) ☐ MICHIGAN (10) ☐	VOLATILES: 624 ☐ 8240 ☐ 8260B	SEMIVOLATILES: 625 ☐ 8270 ☐	PESTICIDES: 608 ☐ 8080 ☐	PCB'S: 608 ☐ 8080 ☐	HERBICIDES: 8150 ☐	PRIORITY POLLUTANTS: METALS ☐ VOA ☐ SVOA ☐ PEST/PCB ☐	UST: BTEX: 602 ☐ 8020 ☐ PLUS MTBE ☐ PLUS TBA ☐	TPH: GRO ☐ DRO ☐ 418.1 ☐	PAH: 8100 ☐ 8270 ☐	LEAD: TCLP ☐ TOTAL ☐	OTHER
PB-15 9.5-10'	12-3-99 12:45		X	1										X										
PB-16	12-2-99 10:35			1										X										
PB-17	12-3-99			1										X										
PB-18	12-3-99			1										X										
PB-19	12-3-99 10:50			1										X										
PB-15 6-7'	12-3-99 12:20			1										X										
PB-21 8-9'	12-3-99 12:55			1										X										

COMMENTS AND SPECIAL HANDLING INSTRUCTIONS

Cooler temp: 25°C

RECEIVED BY LABORATORY	DATE	TIME
[signature]	12-3-99	3:30pm

RECEIVED BY SAMPLER:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: [signature]	3:50	12-3-99	RECEIVED BY:	DATE	TIME
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME

SAMPLE MAY BE RETURNED TO CLIENT AT BEC'S DISCRETION, UNLESS ARRANGEMENTS HAVE BEEN MADE PRIOR TO SAMPLE SUBMISSION.

b.e.c. laboratories

TWINSBURG OHIO | TOLEDO OHIO

☐ **RUSH-ADDITIONAL CHARGE**

RESULTS BY_____
MUST CONFIRM WITH LABORATORY

REPORT TO: MIKE KOVALICH
PHONE: (734) 213-5024
COMPANY: HSI GeoTrans
FAX: (734) 213-5028
ADDRESS: 3131 S. State Street, Ann Arbor
STATE: MI ZIP: 48108
SITE LOCATION: Canbell Soup - Water Treatment
SAMPLER (PRINT):

Analysis Per Quote No._____

SAMPLE IDENTIFICATION	DATE / TIME	COMPOSITE	GRAB	# CONTAINERS	SHIPPED VIA	MATRIX: WATER-W SOIL-S SLUDGE-SL DRUMS-D OTHER-O	CHARACTERISTICS: TCLP: METALS ☐ VOA☐ SVOA☐ PEST/HERB ☐	FLASH POINT: OPEN CUP ☐ CLOSED CUP☐	PAINT FILTER	pH	CYANIDE: TOTAL ☐ REACTIVE☐	SULFIDE: TOTAL ☐ REACTIVE☐	SOLIDS: TOTAL ☐ DISS☐ SUSP☐ ASH☐	TOTALS: METALS: RCRA (8)☐ MICHIGAN (10)☐	VOLATILES: 624 ☐ 8240☐	SEMIVOLATILES: 625 ☐ 8270☐	PESTICIDES: 608 ☐ 8080☐	PCB'S: 608 ☐ 8080☐	HERBICIDES: 8150 ☐	PRIORITY POLLUTANTS: METALS ☐ VOA☐ SVOA☐ PEST/PCB ☐	UST: BTEX: 602 ☐ 8020☐ PLUS MTBE☐ PLUS TBA☐	TPH: GRO☐ DRO☐ 418.1☐	PAH: 8100☐ 8270☐	LEAD: TCLP☐ TOTAL☐	OTHER
MSK PB-2TZ0 9.5-10'	12-3-99 12:50			1											X					9912309				
PB-20 6-7'	12-3-99 13:35			1											X					9912310				
PB-21 8-9'	12-3-99 12:45			1											X					9912311				
PB-21 9.5-10'	12-3-99 12:50			1											X					9912312				
PB-22 7-8'	12-3-99 13:15			1											X					9912313				

COMMENTS AND SPECIAL HANDLING INSTRUCTIONS

Cooler temp: 2.5°C

RECEIVED BY LABORATORY: Edward Shirer — DATE: 12-3-99 — TIME: 3:30pm

RECEIVED BY SAMPLER:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: Mike Kovalich	DATE 12-3-99	TIME 3:30pm	RECEIVED BY:	DATE	TIME
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME

SAMPLE MAY BE RETURNED TO CLIENT AT BEC'S DISCRETION, UNLESS ARRANGEMENTS HAVE BEEN MADE PRIOR TO SAMPLE SUBMISSION.

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

DMWM - HW

DHWM Storage
Box No. 91

RCRA SITE CLOSURE INVESTIGATION WORK PLAN
FORMER HOLDING PIT AREA

October 1, 2000

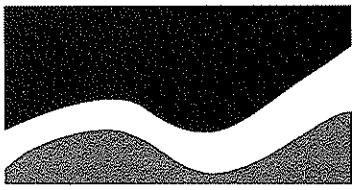
Prepared For:

Campbell Soup Company
Napoleon Facility
East Maumee Drive
Napoleon, Ohio 43545

Prepared By:

HSI GeoTrans
710 Avis Drive
Ann Arbor, Michigan 48108

Project No. P412



HSI
GEOTRANS
A TETRA TECH COMPANY
710 Avis Drive
Ann Arbor, Michigan 48108

RECEIVED
NOV 03 2000
OHIO E.P.A.
N.W.D.O.

RCRA SITE CLOSURE INVESTIGATION WORK PLAN
FORMER HOLDING PIT AREA

October 1, 2000

Prepared For:

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Napoleon Facility
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Ann Arbor, Michigan 48108

Project No. P412

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FIGURES

1 Site Location Map

2 Location of Former Holding Pit

3 Proposed Probe Borings

1.0 INTRODUCTION

1.1 Site Description

The Campbell Soup Company Napoleon facility is located on the south side of East Maumee Avenue, Napoleon, Henry County, Ohio. The facility is located at the southeast edge of Napoleon, on the south side of the Maumee River (Figure 1). The former sludge-holding pit, located in the area identified in Figure 2, was the subject of this investigation.

1.2 Site History

Prior to using the former holding pit, spent solvent from the former can manufacturing operations was stored in 55-gallon drums and eventually used as a boiler fuel supplement (Boiler and Industrial Furnace 'BIF' Small Quantity Burner Exemption). Over time, solids accumulated in the drums, making handling of the spent solvents and drums difficult. To alleviate the solids problem, a temporary holding pit was constructed to receive and dry solids prior to off-site disposal. The pit was constructed atop an elevated area consisting of fill from other parts of the facility. Locally obtained clay was used to construct containment dykes and to line the pit. The clay was compacted to reduce its permeability. The overall dimensions of the holding pit were approximately 20 feet wide by 35 feet long, and 2 ½ feet deep.

Semi-solid residues from the solvent drums were placed in the former holding pit and mixed with sand to reduce the moisture content of the material prior to off-site disposal. This practice was discontinued and the partially filled pits were decommissioned in 1983. A local contractor excavated the dykes and hauled the material to the Evergreen Landfill for disposal. The excavated area was filled with an additional 4- to 5-feet of new sand and natural soil fill material.

The earthen dikes were a one-time construction to remove semi-liquid solids from the drums. The practice was discontinued in 1983 with the excavation of the dikes. Because the solids and sludge materials temporarily placed in the holding pit were potentially exposed to volatile organic compounds (VOCs), a limited subsurface soil investigation was performed at the former holding pit area.

The results of the subsurface investigations were documented in the HSI GeoTrans, Inc. report entitled, "Limited Subsurface Soil Investigation", dated February 16, 2000 (previous

investigation). The principle finding of the limited subsurface investigation is that VOCs do exist in the subsurface soils. This report was submitted to the Ohio EPA for review.

1.3 Purpose and Scope

The purpose of this work plan is to outline the tasks required to complete the subsurface investigation at the former holding pit area for the Campbell Soup Company Facility in Napoleon, Ohio. The scope of work proposed in this RCRA Site Closure Investigation Work Plan will be conducted to satisfy the Order of the Ohio EPA concerning closure of the former pit area. Closure of the former pit will be conducted in accordance with OAC Rules 3745-55-11/3745-66-11 through 3745-55-20/3745-66-20. Comments relating to the previous investigation provided by the Ohio EPA in a letter dated May 16, 2000, have been considered in preparation of this work plan.

In addition, this work plan replaces and supercedes an earlier June 26, 2000, work plan submitted to the Ohio EPA for review and comment. Ohio EPA comments relating to that earlier work plan (draft letter dated August 10, 2000) have been considered in the scope revisions provided in this more recent submittal. Copies of Ohio EPA correspondence providing comments on the investigation or earlier work plans are provided as Appendix A.

2.0 DESCRIPTION OF CURRENT SITE CONDITIONS

2.1 Chemicals of Concern

The materials stored in the former holding pit generally were associated with wastes recovered from the enamel coating process for the inside of food containers. According to the Material Safety Data Sheets (MSDS) provided for these enamels (copies submitted to OEPA on April 20, 2000), the chemical constituents that may have been present in the waste materials stored in the holding pit include the following:

Alcohols	- n-butanol
Ethers	- diethyl glycol monobutyl ether - ethylene glycol monobutyl ether - glycol ether - propylene glycol methyl ether
Ketones	- cyclohexanone - 2-butanone (MEK) - methyl isobutyl ketone (MIBK)
Formaldehyde	
Xylenes	

Chemicals that were actually detected in soils under the former holding pit during the limited soil investigation include the following:

Acetone

2-Butenone (MEK)

1,4-Dichlorobenzene (at concentrations below the practical quantification limit (PQL))

Ethyl benzene

4-methyl-2-pentanone (MIBK)

Naphthalene

Toluene (at concentrations below the PQL)

Xylenes

Although there is no indication that semi-volatile organic compounds (SVOCs) were constituents of the materials stored in the former holding pit, the Ohio EPA has requested that their presence be evaluated at this site. The occurrence of naphthalene in soil samples indicates that simple polynuclear aromatic compounds are present.

2.2 Site Surface Conditions

The former holding pit was constructed atop a mound created from fill soils transported from other grading or excavation activities at the facility. The pit was decommissioned and the dykes leveled prior to adding an additional 4 feet of new fill material over the former pit location. The elevated mound upon which the pit was located is currently 15 to 20 feet above natural grade. Therefore, the former holding pit, while active, was approximately 11 to 16 feet above natural grade.

The current area where the former pit area was located is currently vacant and partially grass-covered. Several trees are located near the margins of the elevated fill area beyond the limits of the former holding pit.

2.3 Site Geology

Geoprobe$_{TM}$ borings completed in the former holding pit area during the previous investigation primarily identified the lithology as fill with varying amounts of clay till, silt and some sand. Other soil borings advanced by Campbell Soup Company in other parts of the facility reportedly encountered stiff clay at 4 feet below the natural grade. This clay is reportedly at least 10 feet in thickness. The high clay content of the local sediments is consistent with the former flood plain and glacial lacustrine deposits that characterize this part of Henry County. The bedrock located beneath the clay-rich surfical deposits is comprised of Devonian Aged shale and carbonates. The local depth to bedrock has not yet been determined.

2.4 Site Hydrogeology

The depth to groundwater at the site was not determined during the previous limited soil investigation. However, publications available through the Ohio State University Extension program indicate that groundwater in Henry County is obtained primarily from a carbonate aquifer located beneath 40 to 85 feet of glacial drift. The City of Napoleon uses surface water obtained from the Maumee River as its public water supply source.

2.5 Nature and Extent of Impacts in Soil

Soil screening using a photoionization detector (PID) identified organic vapors in soil under the former holding pit, and follow-up sampling verified the presence of several specific volatile Organic Compounds (VOCs)[1]. The following compounds were identified above the laboratory method PQLs during the previous investigation: acetone, ethyl benzene, MEK, MIBK, naphthalene, and xylene. Toluene and 1,4-dichlorobenzene were also detected at concentrations below the laboratory method PQLs. The highest concentrations of VOCs were reported from 6 to 9 feet below surface grade (bsg). The photoionization detector (PID) identified organic vapors between about 2 and 9 feet bsg. The approximate horizontal extent of the contaminated area is approximately 60 by 60 feet. The vertical distribution and the horizontal extent of the contaminated area to the northwest was not fully determined during the previous investigation.

2.6 Site Conceptual Model

The native soil under the area of investigation consists primarily of stiff clay and sandy clay deposits. The area under the former holding pit consists of fill materials imported from other locations in the facility, and is elevated above natural grade. The former holding pit was excavated into this non-native fill, and used for approximately 2 years to temporarily hold semi-solid wastes prior to off-site disposal. Sand was mixed with the sludge to decrease the moisture content prior to disposal. When the pit was abandoned, the contents and clay dykes and liner were removed, and the pit side-walls pushed into the pit bottom. The area was re-graded and approximately four feet of fill placed over the former pit area. Some of the mixing sand may have been regraded into the fill, possibly producing thin and isolated soil layers with higher relative permeability. Additional fill has been placed over the former holding pit area since the pit was demolished.

Based on conversations with plant personnel and the soil profile observed during the previous limited soil investigation, the area formerly occupied by the holding pit has the following general lithologic profile:

- From 0 to 4 feet below grade – more recent fill material consisting of clay, cinder, and construction debris.
- From 4 feet to 6 feet below grade – mixed materials consisting of the former collapsed pit berms and sand used for mixing.

- From 6 feet to about 15 feet below grade - older (pre-holding pit) fill material consisting of clay with some sand or silt and some cinders.
- From about 15 feet to more than 20 feet below grade - native clay and fine textured sediments

A schematic cross sectional representation of the former holding pit is provided as Appendix B. Based on this generalized lithologic description and cross sectional profile, it is expected that chemical concentrations associated with the materials stored in the former holding pit will occur at the highest concentrations in the horizon associated with the bottom of the former clay pit, or at 6 to 8 feet below the current ground surface. This horizon contains the most sand and may be most permeable. Concentrations should decrease with depth, depending on the effectiveness of the clay liner and clay content of the underlying fill. The underlying clay-rich native soil should act as a barrier to continued vertical migration. Some leakage through the clay liner could have occurred during the two years of pit activity if the clay liner possessed inhomogeneities, fissures or other structural weaknesses, or if the clay's permeability was affected by chemical interactions.

[1] Limited Subsurface Soil Investigation, Former Holding Pit Area, February 16, 2000, HSI GeoTrans

3.0 IDENTIFICATION OF REMAINING DATA NEEDS

3.1 Local Occurrence of Groundwater

Groundwater was not encountered in any boring completed in the preliminary soil investigation. Borings were advanced to a depth of 12 feet below grade with no observed soil saturation. Any moisture observed in soils is due to transient water, as the borings were generally too shallow to extend below the natural grade.

Information related to groundwater under the facility is not readily available. The Henry County Health Department was contacted to obtain general information relating to local groundwater availability. Few water users obtain water from groundwater resources in the area. Most water supply systems obtain surface water from the Maumee River. Private wells may be present beyond the limits of the Napoleon water supply distribution system. Additional file review and record acquisition efforts are required to further evaluate the water bearing formations, the depth to groundwater, the direction of groundwater movement, and the potential for groundwater to be affected by the soil conditions under the former pit area.

The potential for groundwater impact will depend on the penetration depth of infiltrating chemicals. If the vertical extent of contamination is limited to soil above natural grade, then groundwater cannot be affected and groundwater occurrence is irrelevant. If soil contaminants extend into the natural soils below natural grade, then additional shallow hydrogeological information will be required.

3.2 Vertical and Horizontal Extent of VOCs in the Area of Impact

During the limited subsurface soil investigation, soil samples were screened for organic vapors using a PID, and select soil samples were collected and analyzed in a laboratory for VOCs. VOC samples were obtained from a uniform depth of approximately 10 feet in all borings, and from approximately 6 feet in several borings with high relative concentrations. This work was appropriate for identifying whether an environmental issue existed, what concentrations were present, and for estimating the approximate volume of affected soil. However, it did not satisfy the criteria for delineating soil and groundwater conditions as part of a RCRA closure investigation.

To adequately characterize the soil contamination, additional soil samples need to be collected. PID data is useful for screening soil samples, but is not an acceptable method for conducting a RCRA closure investigation. The sample boring grid spacing was satisfactory, but the vertical distribution of VOCs in each boring was not sufficiently evaluated. In addition, horizontal delineation was not completed to the north and west of the main grid. Therefore, additional soil samples must be collected from various depth intervals in and around the former holding pit to characterize the soil contamination and determine the vertical and horizontal extent of VOCs under and around the former holding pit.

3.3 Occurrence of SVOCs in the Area of Impact

The Ohio EPA requested that the soil under the former holding pit be evaluated for semi-volatile organic compounds (SVOCs). SVOCs are not expected to be a major constituent of the wastes stored temporarily in the former holding pit – however, the occurrence of naphthalene suggests that SVOC evaluation may be warranted. Additional soil samples need to be collected throughout the sampling area to determine whether SVOCs are present, and whether they will be a factor in determining future remediation strategies or action plans.

4.0 SCOPE OF WORK

4.1 Determine the Local Occurrence of Groundwater

The local occurrence of groundwater will be determined by obtaining and reviewing readily available hydrogeological references and reports, geological references and reports, and other documents available through the Ohio EPA, Henry County, academic institutions, and other sources.

Local area well records will be obtained from the Ohio EPA and the Henry County Health Department to evaluate the location of water supply wells, the formations supplying water to wells, the depth to groundwater, and if possible, the general direction of groundwater flow.

If the soil probes indicate that soil contamination is limited to the fill material, and does not extend below the natural grade level, then no additional groundwater investigation will be required. If the soil borings extend below natural grade, then soil borings will be observed for 15 to 30 minutes to determine whether water enters the boring. In this event, a sample of the groundwater will be collected and additional groundwater investigation activities will be necessary.

4.2 Determine the Vertical and Horizontal Extent of VOCs in Soil Under and Surrounding the Former Holding Pit

Approximately twenty-two Geoprobe$_{TM}$ soil borings will be advanced in and around the area previously investigated during the limited subsurface soil investigation (Figure3). Samples will be collected from these borings from depths of approximately 3, 6, and 12 feet below grade to evaluate the vertical distribution of VOCs in and around the known affected area. An additional deeper sample will be collected from each boring at depths of approximately 14 feet and held at the laboratory for later evaluation, pending the results of the 12-foot sample analysis. Samples will not be collected from depths shallower than 3 feet because this soil consists of fill material which post dates the demolition and re-grading of the former holding pit.

4.3 Determine Whether SVOCs are Present in Soil Under the Former Holding Pit

To address the Ohio EPA request for evaluating SVOCs in soil, samples will be collected from the 3, 6 and 12 foot intervals at each boring indicated in Figure 3. A sample will also be collected

from the 14 foot depth interval and held for possible later evaluation. These samples will be analyzed for semi-volatile aromatic compounds; specifically the polynuclear aromatic compounds (PNAs).

5.0 METHODS AND PROCEDURES

The sample collection and handling procedures described below will be used to implement the scope of work presented in this work plan. A mobile laboratory will be used to obtain immediate-to-short turn around analytical results and SVOC will be analyzed in addition VOCs. The EPA Method 5035 (field methanol preservation) procedure will not be used during this investigation phase of this work plan because it will negatively affect the detection limits of the on-site mobile laboratory apparatus.

With the exception of the use of a mobile laboratory and the evaluation of SVOCs, the methods and procedures described below are the same as those implemented during the previous investigation activities described in the Limited Subsurface Soil Investigation, dated February 16, 2000.

5.1 Soil Borings

Soil borings will be advanced to a total depth of 14 feet using Geoprobe$_{TM}$ direct push methods. The sample will be collected in four-foot long 2-inch diameter macro-sampler core barrels lined with clear PVC sampling sleeves. A clean stainless steel knife will be use to dissect the liner to extract the sample for evaluation. Part of the sample will be field screened using a PID. Soil samples representative of the depth intervals identified in Section 4 of this document will be collected using a clean wood or stainless steel spatula and submittal to an on-site mobile laboratory technician for VOC and/or SVOC (PNA) analyses.

5.2 Sample Handling and Analyses

Probe rods will be decontaminated between borings using Liquinox detergent and rinsed with clean deionized water. All tools used to extract the soil samples from the sampling tubes will be cleaned using a Liquinox detergent solution and rinsed with de-ionized water prior to collecting each sample. Decontamination fluids and rinses will be disposed at the facility waste water treatment plant. New latex gloves will be worn by the sampling personnel and changed between sample collection events.

Samples will be placed in pre-labeled containers provided by the mobile laboratory technician. Each container will be specifically marked for the parameter to be analyzed. Sample preservatives (if necessary) will be pre-measured and placed into the sample containers by the mobile laboratory tachnician. Each sample container will have a label to record the sample

identification, sample depth, sample date and time, parameter(s) for analysis, person collecting the sample, and other pertinent data. Once filled, sample containers will be placed in a chilled insulated cooler until it is extracted and loaded into the mobile laboratory GC/MS. Sample information and handling history will be documented on laboratory supplied chain-of-custody forms.

Samples will be analyzed in mobile laboratory units provided and operated by New Age/Landmark Mobile Laboratory Services, of Benton Harbor, Michigan. QA/QC Plan document can be submitted to the Ohio EPA upon request.

Volatile organic compounds will be analyzed by GC/MS using EPA Method 8260. Semi-volatile organic compounds will be analyzed using EPA Method 8270.

6.0 HEALTH AND SAFETY PLAN

Prior to initiating field activities, a Site Health & Safety Plan will be prepared in accordance with OSHA, 29 CFR 1910.120. The Site Health & Safety plan will be provided to any subcontractor involved in the on-site implementation of this work plan. An on-site meeting will be held with contractors prior to initiating field activities to ensure they understand the potential hazards associated with the implementation of this work plan.

The Health & Safety plan document will include the following information:

- Key personnel and responsibilities
- Training and medical Surveillance Requirements
- Site Description
- Work Objectives
- Hazard evaluation
- Air monitoring
- Personal protective equipment
- Decontamination and site control procedures
- Residuals management
- Emergency information and contacts
- Contingency plan for emergencies
- Spill containment procedures, and
- Confined space entry procedures

7.0 PROJECT SCHEDULE

The following schedule is proposed for this scope of work:

Activity	Days from Receipt of OEPA Approval
Complete Site Health & Safety Plan	15
Complete field sampling	45
Evaluate data	60
Submit Investigation Report	75

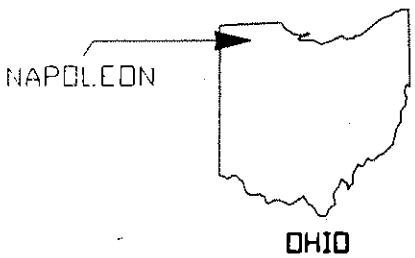
Figures





0 NO SCALE

SCALE:



HSI GEOTRANS
A TETRA TECH COMPANY

CHECKED: AMM | DATE: 1/17/99

RCRA WORKPLAN
CAMPBELL'S SOUP
NAPOLEON, OHIO

SITE LOCATION MAP

FIGURE 1

M:\CHS\P:\PROJECTS\P269\CADD\FIG1.DWG 01/17/99 AMM 1



AERIAL PHOTOGRAPHY SOURCE: OHIO DEPARTMENT OF NATURAL RESOURCES GEOLOGICAL SURVEY DIVISION 4/06/98

HSI GEOTRANS
A TETRA TECH COMPANY

CHECKED: CAS | DATE:

400 200 0 400 800

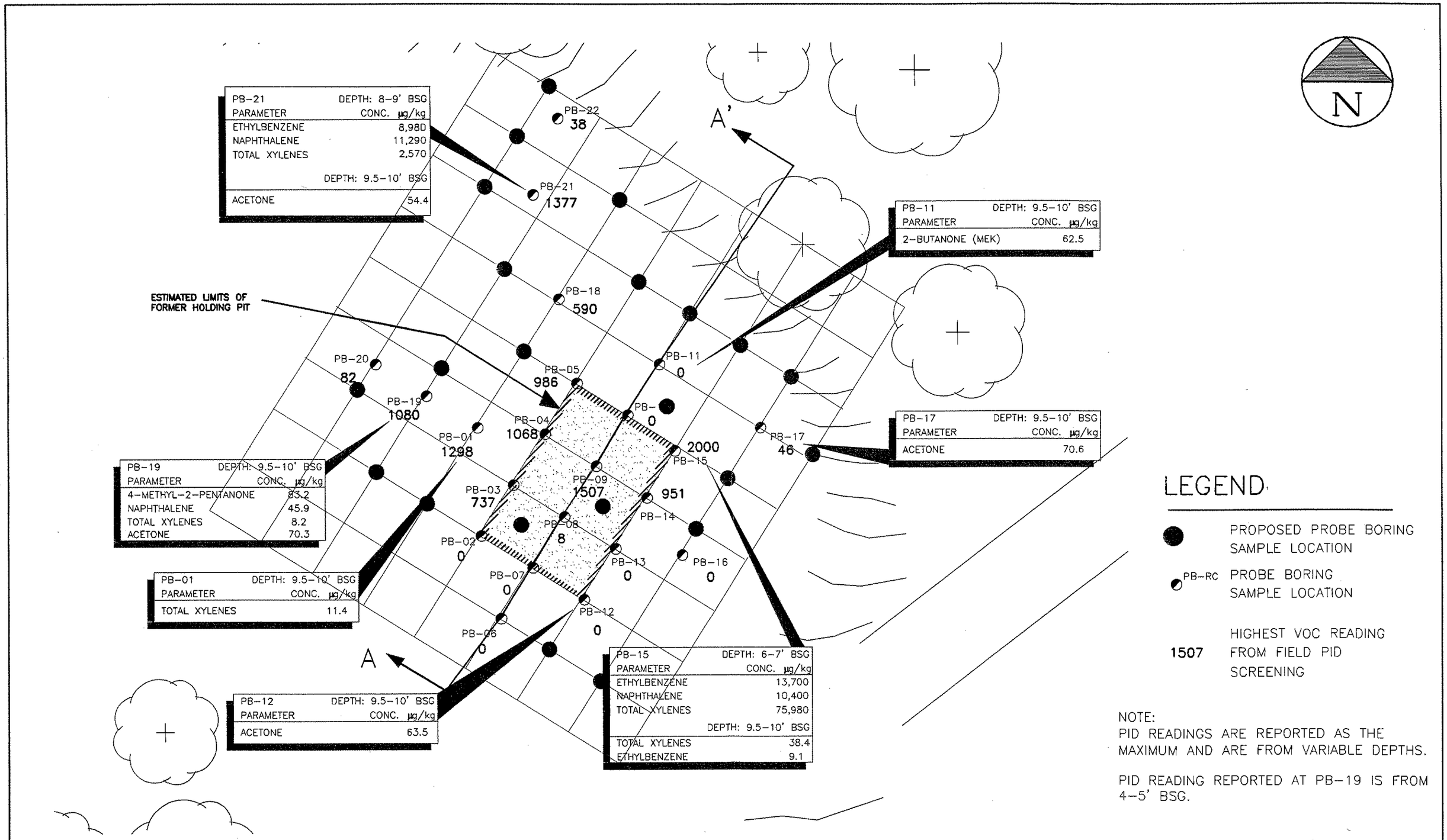
SCALE: 1"=400'

ENVIRONMENTAL INVESTIGATION
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

LOCATION OF
FORMER HOLDING PIT

FIGURE
2

MACH5:P:/PROJECTS/P269/CADD/FIG2.DWG 02/16/00 MSK 2



HSI GEOTRANS
A TETRA TECH COMPANY

CHECKED: CAS DATE:

RCRA WORKPLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

PROPOSED PROBE BORINGS

FIGURE 3

MACH5:P:/PROJECTS/P269/CADD/FIG2.DWG 02/16/00 MSK 2

Appendix A

OhioEPA
State of Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402-9398
(419) 352-8461 FAX (419) 352-8468

Bob Taft
Governor

Re: Henry County
Campbell's Soup Company
OHD 987046703,
OHD 987023678, and
OHD 005419171
Hazardous Waste

May 16, 2000

Mr. Michael Maringer
Manager, Service and Utilities
Campbell's Soup Company
East Maumee Avenue
Napoleon, Ohio 43545

Dear Mr. Maringer:

On March 23, 2000, this office received a report from Campbell's Soup Company (Campbell's) entitled Limited Subsurface Soil Investigation: Former Holding Pit Area. Ohio EPA has reviewed the document and offers the following comments:

1. Campbell's has not identified the full horizontal range of contamination. Sample data submitted shows the majority of samples were taken at depths of 9.5 to 10 feet, with no samples taken from 0 to 6 feet. It is possible that contamination exists in more shallow soils beyond the boundaries of Campbell's sampling. Therefore, a more complete investigation needs to be conducted. Samples must be taken from the 0 to 2 and 2 to 4 foot depth intervals. A map showing proposed sampling locations must be submitted to Ohio EPA, NWDO prior to sampling.

2. No details of how the samples were taken (other than saying samples were taken with a Geoprobe) is included in the report. Sampling protocol information must be provided to Ohio EPA in future submissions.

3. No semi-volatile organic compounds (SVOCs) were targeted as a result of this investigation. Campbell's should explain the reason for their absence.

4. On page 3-1, Campbell's states that soil samples were collected from the 9.5 to 10 foot depth interval. As the material was supposed to have been applied approximately 2.5 feet below grade, it would seem that shallow soil samples should have been taken. Shallow soils must be addressed by Campbell's during the RCRA closure process. Samples must be taken at the 0 to 2 and 2 to 4 foot intervals, at a minimum. Sampling location points should be submitted to Ohio EPA for approval prior to sampling.

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MAY 19 '00 16:50 FR ACCT PAYABLE CSC NAP0419 599 6669 TO 917342135008 P.02/03

** TOTAL PAGE.03 **

5. On page 4-1, Campbell's states that depth to groundwater was not determined, but that a literature review indicates Henry County's groundwater is primarily obtained from a carbonate aquifer located beneath 40 to 85 feet of glacial drift.

   A more thorough groundwater investigation must be performed. In the future, Campbell's must check for saturated conditions in the Geoprobe boreholes. Campbell's must also check Ohio Department of Natural Resources (ODNR) well log locations within a one mile radius of the former holding pit area. When a formal RCRA closure is performed, if soil contamination exists at or below saturated soil conditions, groundwater samples will need to be collected.

6. On page 4-4, Campbell's discusses Ohio EPA's draft guidelines for single chemical clean-up numbers for RCRA closures to generic residential standards. While these draft guidelines do exist, they are not applicable to this project because they do not account for cumulative effects from multiple chemicals, such as those in the former holding pit.

7. On page 6-1, HSI GeoTrans (the developers of this document), recommends calculating action/clean-up levels using the Risk Based Corrective Action (RBCA) process with site specific parameters. As this unit will need to undergo formal RCRA closure, this approach is not acceptable.

8. Appendix A shows that borings were advanced to a depth of 12 feet. However, no samples were submitted from depths greater than 10 feet. Campbell's should explain the rationale behind this approach.

This review should not be construed to constitute a complete review of Campbell's closure plan for the former holding pit area. The plan will be addressed in detail in future correspondence. This review did not include joint review by Ohio EPA's Division of Drinking and Ground Waters. If you have any questions, feel free to contact me.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/sw

pc: Jeremy Carroll, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
DHWM, NWDO File

MAY 19 '00 16:51 FR ACCT PAYABLE CSC NAP0419 599 6669 TO 9173421350O8 P.03/03

Re: Henry County
Campbell's Soup Company
OHD 005419171
Hazardous Waste

August 10, 2000

Mr. Michael Maringer
Manager, Service and Utilities
Campbell's Soup Company
East Maumee Avenue
Napoleon, Ohio 43545

Dear Mr. Maringer:

On June 30, 2000, this office received a report from Campbell's Soup Company (Campbell's) entitled RCRA Site Closure Investigation Work Plan: Former Holding Pit Area. Ohio EPA has reviewed the document and offers the following comments:

1. Campbell's has not identified the full horizontal or vertical range of contamination. Sample data submitted shows the majority of samples were taken at depths of 9.5 to 10 feet, with no samples taken from 0 to 6 feet. It is possible that contamination exists in more shallow soils beyond the boundaries of Campbell's sampling. Therefore, a more complete investigation needs to be conducted.

   Samples at each prior boring must be taken at shallower depths than 10 feet. It is probable that contamination may exist in soil at depths from 6-8 feet, for example, but not at 10 feet. For this reason, a non-detect value at 10 feet alone cannot be used to determine the horizontal extent of contamination. Taking samples from 3, 6, and 12 feet below grade is acceptable. However, the deeper sample to be held at the laboratory should be taken at from 14, not 16, feet.

2. Only advancing additional borings at sample numbers PB-23 through 26 is unacceptable. The full vertical extent of contamination from the former holding pits must be defined. The highest concentrations of contaminants could be found in soils between 4 to 8 feet below grade, yet the work plan only calls for additional sampling at 9 borings. Samples from all previous and future sampling points must be taken from 3, 6, 12 (9-10 foot interval having already been sampled), and 14 feet below grade.

3. Campbell's proposal to remove contaminated soils to another unimpacted area for the purpose of phytoremediation is not acceptable to Ohio EPA. The placement of soils from the former holding pit area onto unimpacted ground would constitute creation of a waste pile and require the submission of a RCRA Part B permit application for the waste pile.

4. No details of how the samples were taken (other than saying samples were taken with a Geoprobe)is included in the report. Sampling protocol information must be provided to Ohio EPA in future submissions. Sampling results without this information will not be accepted for closure purposes.

5. The presence of naphthalene (a common ingredient in many industrial solvents) in samples from the December, 1999 sampling event indicates semi-volatile organic compound (SVOCs) contamination. All samples should be analyzed for the presence of SVOCs as well as VOCs.

6. Figure 4 of the February 2000 limited investigation document does not include all soil contamination listed in Table 2 of said document. Acetone was found at 70.6 ug/kg at PB-17 and 63.5 ug/kg at PB-12; methyl ethyl ketone was found at 62.6 ug/kg at PB-11; total xylenes were found at 11.4 ug/kg at PB-01 and 38.4 (at 10 feet) at PB-15; ethylbenzene was found at 9.1 ug/kg (at 10 feet) at PB-15.

7. The sections dedicated to site geology and hydrogeology (section 2.3 and 2.4) will need to be much more detailed in the closure plan. For example, Campbell's must determine occurrence of the uppermost saturated unit-i.e. the occurrence of saturated conditions below the unit.

8. Campbell's must determine the vertical impact of soil contamination. Campbell's should leave the borings in the unit open to allow for infiltration of groundwater, if any. This would go to prove the occurrence of shallow groundwater.

9. If soil is impacted at concentrations greater than the Method Detection Limit (MDL) for VOCs at or below the shallow groundwater table, a complete groundwater investigation must be performed.

10. Section 3.1 of the work plan states that groundwater was not encountered in any borings at 12 feet. Campbell's should explain what evidence this conclusion is based upon.

11. A literature search is insufficient to determine local occurrence of groundwater. Campbell's must perform more sampling and obtain site specific information for the occurrence of groundwater.

12. Campbell's should be prepared to collect groundwater samples from the Geoprobe borings for VOCs and SVOCs, if groundwater occurs.

This review should not be construed to constitute a complete review of Campbell's closure plan for the former holding pit area. The plan will be addressed in detail in future correspondence. This review did not include joint review by Ohio EPA's Division of Drinking and Ground Waters. If you have any questions, feel free to contact me.

Sincerely,

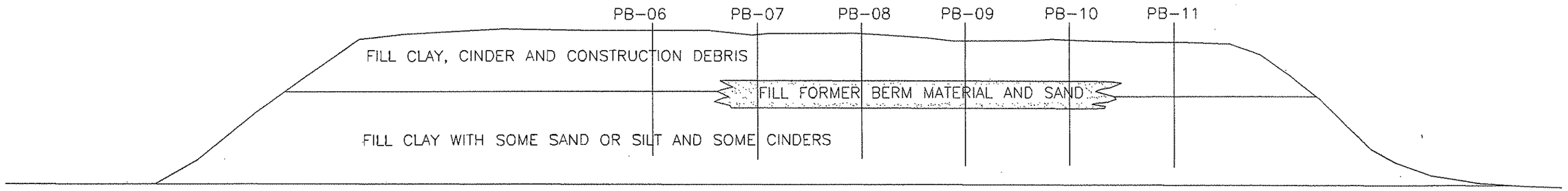
Michael R. Terpinski
Division of Hazardous Waste Management

pc: Jeremy Carroll, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
John Weaver, DDAGW, NWDO
NWDO File

Appendix B

SOUTHWEST
A

NORTHEAST
A'



HSI GEOTRANS
A TETRA TECH COMPANY

CHECKED: CAS

DATE:

10 5 0 10 20

SCALE: HORIZONTAL AND VERTICAL 1"=10'

ENVIRONMENTAL INVESTIGATION
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

FORMER HOLDING PIT GENERALIZED CROSS-SECTION

APPENDIX
B

MACH5:P:/PROJECTS/P269/CADD/EXPANDED.DWG 9/26/00 MSK 1

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

DMWM - HW

OHWM Storage
Box No. 91

RCRA SITE CLOSURE PLAN

FORMER HOLDING PIT UNIT

CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

RECEIVED
MAY 28 2002
OHIO E.P.A.
N.W.D.O.

Prepared for:

Campbell Soup Company
East Maumee Avenue
Napoleon, Ohio

Prepared by:

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, Michigan 48108

~~October 25, 2001~~ May 24, 2002

GeoTrans, Inc.
A TETRA TECH COMPANY

710 Avis Drive Ann Arbor, MI 48108
734-213-2204 FAX 734-213-5008

RCRA SITE CLOSURE PLAN

FORMER HOLDING PIT UNIT

CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

Prepared for:

Campbell Soup Company
East Maumee Avenue
Napoleon, Ohio

Prepared by:

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, Michigan 48108

May 24, 2002 ~~**October 25, 2001**~~

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1.0 GENERAL

1.1 Purpose and Scope

The purpose of this work plan is to outline the tasks required to close a former holding pit area for the Campbell Soup Company Facility in Napoleon, Ohio. The Ohio Environmental Protection Agency (OEPA) issued an Order to Campbell Soup Company and Campbell Soup Supply Company, LLC, to properly close the former holding pit area at the Napoleon Facility, located at 1273 State Route 110, Napoleon, Ohio. This Closure Plan is submitted to fulfill the requirements of the Order. The Campbell Soup Company Napoleon Plant is registered as a small quantity generator under RCRA, and does not operate other hazardous waste transportation, storage of disposal facility (TSDF) units on this property.

1.2 WASTE CHARACTERIZATION

THE WASTES THAT WERE PLACED IN THE HOLDING PIT WERE SEMI-SOLID SLUDGES ASSOCIATED WITH COATING MATERIALS AND SOLVENTS USED IN THE CAN MANUFACTURING FACILITY. THE OHIO EPA HAS ASSIGNED THE WASTE CODE D001 TO THIS SITE DUE TO THE NATURE OF THE ORIGINAL WASTES TEMPORARILY STORED IN THE HOLDING PIT. SOILS THAT HAVE COME INTO CONTACT WITH THESE WASTES ARE NOT CURRENTLY EXPECTED TO BE HAZARDOUS. SOIL SAMPLES WILL BE COLLECTED TO VERIFY THE SOIL IS NON-HAZARDOUS, AS DESCRIBED IN SECTION 14.4.

2.0 DESCRIPTION OF FACILITY

2.1 Site Description

The Campbell Soup Company Napoleon facility is located on the south side of East Maumee Avenue, Napoleon, Henry County, Ohio. The facility is located at the southeast edge of Napoleon, on the south side of the Maumee River (Figure 1). The former sludge-holding pit, located in the area identified in Figure 2, was the subject of this investigation.

The facility is involved with the processing, packaging, and distribution of food goods. The facility occupies 742 acres: 679 acres are used for agriculture and spray irrigation, 55 acres are "under roof" or occupied by buildings, and 8 acres are paved or open areas. The "under roof" areas include the beverage plant facilities (305,650 square feet (sq. ft.)), the main plant facilities (1,670,000 sq. ft.) and other miscellaneous buildings (40,000 sq. ft.).

The area breakout for the main plant is summarized below:

Manufacturing	951,176-sq. ft.
Warehouse	572,000-sq. ft.
Office Space	98,051-sq. ft.
Boiler House	21,639-sq. ft.
Water Plant	19,328-sq. ft.
Waste Water Treatment Plant	7,806-sq. ft.

The wastes associated with the former holding pit consisted of spent coating materials and solvents that were used in the can manufacturing facility at the site. Prior to 1981, spent coating materials and solvents from the former can manufacturing operation were stored in 55-gallon drums and eventually used as a boiler fuel supplement (Boiler and Industrial Furnace 'BIF' Small Quantity Burner Exemption). Over time, solids accumulated in the drums, complicating handling of the spent solvents and drums. To manage the solids, a temporary holding pit was constructed to receive and dry the solids prior to off-site disposal.

The former drying pit was constructed on top of an elevated area consisting of fill from other parts of the facility. Local clay was used to construct containment dikes and to line the pit. The clay was compacted to reduce its permeability. The overall dimensions of the holding pit were approximately 20 feet wide by 35 feet long, and 2 ½ feet deep.

Semi-solid residues from the solvent drums were placed in the former holding pit and mixed with sand to reduce the moisture content of the material prior to off-site disposal. The holding pit was active from 1981 until it was demolished in 1983. A local contractor excavated the dikes forming the pits and transported the dried material to the Evergreen Landfill in Bedford, Ohio, for disposal. The excavated area was filled and covered with an additional 4- to 5-feet of new sand and natural soil fill material.

Because the solids and sludge materials temporarily placed in the holding pit contained volatile organic compounds (VOCs), a limited subsurface soil investigation was performed at the former holding pit area. The results of the subsurface investigations were documented in the HSI GeoTrans, Inc., report, Limited Subsurface Soil Investigation, dated February 16, 2000 (preliminary investigation). This limited subsurface investigation identified VOCs in subsurface soils. The report was submitted to the OEPA for review on March 26, 2000.

The OEPA requested follow-up investigation in a letter dated May 16, 2000. A work plan proposing soil and groundwater delineation activities was submitted to the OEPA on October 1, 2000. The work plan was approved in correspondence dated April 3, 2001, and a formal RCRA Closure Plan was requested. In meetings to discuss the closure plan, the OEPA requested that semi-volatile organic compounds (SVOCs) analysis be included, based on the earlier detection of naphthalene.

The additional investigation activities were conducted during the week of May 21, 2001. This investigation confirmed that VOCs were present, and determined that SVOCs were also present in the subsurface soils. The extent of soil impact was determined to be much larger than the physical limits of the former holding pit.

3.0 MAP OF FACILITY

A map showing the location of the facility and its relationship to other local landmarks is presented as Figure 1. A detailed facility map, produced from an aerial photograph, is provided as Figure 2. Figure 2 identifies the location of the former holding pit within the facility. The Maumee River is approximately 1,150 feet northwest of the former holding pit.

4.0 DESCRIPTION OF HAZARDOUS WASTE MANAGEMENT UNITS TO BE CLOSED

4.1 Site Surface Conditions

The former holding pit was constructed on top of a mound created from fill soils transported from other grading or excavation activities at the facility. The pit was decommissioned and the dikes leveled prior to adding an additional 4 feet of new fill material over the former pit location. The elevated mound upon which the pit was located is ~~currently~~ APPROXIMATELY 20 ~~to 25~~ feet above natural grade. Therefore, the former holding pit was approximately 11 ~~to 16~~ feet above natural grade during its active phase.

The area where the former pit area was located is currently vacant and partially grass-covered. Several trees are located near the margins of the elevated fill area beyond the limits of the former holding pit.

Topography across the facility is generally flat. Drainage is toward the northwest, to the Maumee River. MORE DETAILED SITE SPECIFIC TOPOGRAPHIC INFORMATION WILL BE OBTAINED DURING THE FIELD WORK OUTLINED IN THIS CLOSURE PLAN.

4.2 Site Geology

Geoprobe™ borings were completed in the former holding pit area during the preliminary remedial investigation. Based on information from these borings, the lithology of the mound can be characterized as fill with varying amounts of clay till, silt and some sand. Several distinct cinder or ash layers, up to 6-inches thick, were identified in the subsurface. These cinder/ash deposits are associated with residue from the on-site boiler operations.

Borings advanced by Campbell Soup Company in other parts of the facility reportedly encountered stiff clay at ~~4~~ 3.5 feet below the natural grade. This clay was observed to be at least ~~1~~20 feet thick. The high clay content of the local sediments is consistent with the former flood plain and glacial lacustrine deposits that characterize this part of Henry County. The bedrock located beneath the clay-rich surfical deposits is comprised of Devonian Aged shale and carbonates. The local depth to bedrock has not yet been determined.

4.3 Site Hydrogeology

DUE TO THE LACK OF A SUITABLE AQUIFER, THE CITY OF NAPOLEON USES SURFACE WATER OBTAINED FROM THE MAUMEE RIVER AS ITS PUBLIC WATER SUPPLY. HENRY COUNTY'S PRIMARY GROUND-WATER SOURCE IS A CARBONATE AQUIFER THAT IS COMPOSED OF LIMESTONE AND DOLOMITE. THIS AQUIFER IS LOCATED BENEATH 40 TO 85 FEET OF GLACIAL DRIFT. WELLS DEVELOPED AT DEPTHS EXCEEDING 200 FEET MAY YIELD IN EXCESS OF 150 GALLONS PER MINUTE (GPM) IN THE SOUTHERN AND EASTERN PARTS OF THE COUNTY. THE SECOND MOST COMMON GROUND-WATER SOURCE IS THE SAND AND GRAVEL AQUIFER WHICH IS PRODUCTIVE IN THE CENTRAL AND NORTHWEST PARTS OF THE COUNTY. IN THIS REGION, THIN LENSES OF SAND AND GRAVEL ARE LOCATED BENEATH THICK LAYERS OF FINE SAND AND SILTY CLAY; WELL YIELDS ARE LESS THAN 10 GPM. [1]

WELL LOG AND DRILLING REPORTS WERE OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) FOR ALL WATER SUPPLY WELLS LOCATED WITHIN 1 MILE OF THE STUDY AREA (APPENDIX E). THE SEARCH CONDUCTED BY THE ODNR IDENTIFIED FIVE WATER SUPPLY WELLS WITHIN ONE-MILE OF THE STUDY AREA. THREE OF THE FIVE REPORTS INDICATE THAT A SAND AND GRAVEL UNIT EXISTS ABOVE THE BEDROCK AT APPROXIMATELY 46-64 FEET BSG. HOWEVER, ONLY TWO RESIDENTIAL WELLS (WELL #13 AND WELL #15) ARE SCREENED IN THIS UNIT. WELL #13 AND WELL #15 ARE LOCATED APPROXIMATELY 0.75 MILES TO THE EAST OF THE SITE AND PRESUMABLY UP GRADIENT. THE REMAINING WELLS OBTAIN GROUNDWATER FROM THE SHALE. WELL #43, LOCATED APPROXIMATELY 1,100 FEET TO THE SOUTHEAST, IS THE NEAREST RESIDENTIAL WELL TO THE SITE, AND IS PRESUMABLY UP GRADIENT. THE LOG FOR WELL #43 DESCRIBES THE UPPER 16 FEET AS SAND FOLLOWED BY CLAY TO THE SURFACE OF THE BEDROCK. THE LOG FOR WELL #43 INDICATES THAT THE WELL OBTAINS WATER FROM THE SHALE.

IN NOVEMBER 1989, TOLEDO TESTING LABORATORY, INC. COMPLETED NINE GEO-TECHNICAL BORINGS IN THE GENERAL VICINITY OF THE HOLDING PIT (APPENDIX F). EACH BORING WAS INSTALLED BY SOLID-STEM AUGER TO A TOTAL DEPTH OF 30 FEET. SPLIT-SPOON SOIL SAMPLES WERE COLLECTED AT AN APPROXIMATE INTERVAL OF FIVE FEET. IN GENERAL THE BORING LOGS INDICATE THAT THE UPPER 0.15 TO 3.5 FEET IS TOPSOIL AND OR CRUSHED STONE, FOLLOWED BY 2 TO 8.5 FEET OF SILTY CLAY FILL. THE NATIVE MATERIALS BENEATH THE FILL DEPOSITS WERE

[1]Ground-Water Resources of Henry County, 1982.J.J. Schmit. ODNR Division of Water (Map)

GENERALLY DESCRIBED AS SOFT TO HARD, SILTY CLAY TO CLAYEY SILT, WITH VARYING AMOUNTS OF SAND AND GRAVEL, WITH OCCASIONAL SILT AND SAND SEAMS BETWEEN 12 AND 23.5 BSG. THE REMAINING NATIVE MATERIALS WERE DESCRIBE AS STIFF TO VERY HARD SILTY CLAY TO CLAYEY SILT, WITH VARYING AMOUNTS OF SAND AND GRAVEL, AND OCCASIONAL SILT AND SAND SEAMS. SILT AND SAND SEAMS PRODUCED WATER IN FOUR OF THE NINE BORINGS. The depth to groundwater at the site was not determined during the previous limited soil investigation.

~~However, publications available through the Ohio State University Extension program indicate that groundwater in Henry County is obtained primarily from a carbonate aquifer located beneath 40 to 85 feet of glacial drift. The City of Napoleon uses surface water obtained from the Maumee River as its public water supply source.~~

Limited zones of transient or perched water were encountered during the remedial investigation along the northern edge of the elevated mound. This water is believed to be transient water that has been trapped above impermeable clays within the mound., ~~, and is not in hydraulic connection with regional groundwater.~~ The bottoms of the water-containing perched units are above the natural grade of the site. The presence of perched water in the non-native site materials suggests that some precipitation is permeating the soil in the study area, and moving within or occupying the more permeable discontinuous layers within the mound. ~~Because the perched water is not in hydraulic connection with groundwater, it~~It is possible that a portion of the water entering the mound sediments exits the mound via seeps along the walls or basal portion of the mound. TO DETERMINE WHETHER THIS WATER IS MIGRATING VERTICALLY TO THE NATURAL GROUNDWATER, THREE MONITORING WELLS WILL BE INSTALLED TO INVESTIGATE SHALLOW GROUNDWATER CONDITIONS AT THE SITE (SEE SECTION 14.1).

4.4 Nature and Extent of Impacts in Soil – December 1999 Investigation

A preliminary investigation was conducted in December 1999 to determine whether soils had been impacted by sludge formerly stored in the former holding pit. The findings were documented in the February 16, 2000, report titled Limited Subsurface Soil Investigation, Former Holding Pit Area.

Twenty-two (22) Geoprobe™ borings were advanced in and around the former pit area. Soil was screened using a photoionization detector (PID) to identify organic vapors in soil under the former holding pit. Samples collected near the bottoms of the borings and at select depth intervals near the former holding pit horizon verified the presence of several specific VOCs. The following compounds were identified above the laboratory method detection limits during the initial investigation:

- acetone
- ethylbenzene
- methyl ethyl ketone (MEK)
- methyl isobutyl ketone (MIBK)
- naphthalene
- total xylenes

Toluene and 1,4-dichlorobenzene were also detected at concentrations below the laboratory method practical quantitation limits (PQLs).

Organic vapors were detected with the PID between about 2 and 9 feet below surface grade (bsg). The highest concentrations of organic vapors were reported from 6 to 9 feet bsg. The approximate horizontal extent of the contaminated area was originally estimated to be approximately 60 by 60 feet. The vertical distribution and the horizontal extent of the contaminated area to the northwest were not fully delineated during this initial investigation.

4.5 Nature and Extent of Impacts in Soil – May 2001~~0~~ Investigation

Additional investigation activities were conducted in May 2001, in accordance with the October 1, 2000, work plan. This investigation was intended to determine the vertical and horizontal extent (to non-detect levels) of VOCs, and to determine whether semi-volatile organic compounds (SVOCs) were present. Personnel from the OEPA Northwest District Office were present during portions of this field work.

Thirty-one (31) Geoprobe™ borings were completed to depths ranging from 8 to 26 feet bsg, at increasing distances from the original sampling grid. Soil samples were collected at 2- to 4-foot depth intervals and field screened for organic vapors using a PID. Select samples from 29 of the borings were submitted to an on-site mobile laboratory for GC/MS analyses of

VOCs and SVOCs using EPA Methods 8260/5035 and 8270, respectively. VOC samples were first preserved using methanol preservation by Method 5035.

THE USE OF METHANOL PRESERVATION INTRODUCED A SIGNIFICANT DILUTION FACTOR, RESULTING IN HIGHER REPORTING LIMITS COMPARED TO METHOD DETECTION LIMITS NORMALLY ASSOCIATED WITH SW-846 METHODS 8260B AND 8270. IT IS IMPORTANT TO NOTE THAT THE LIMITS PRESENTED IN THE LABORATORY DATA SHEETS FOR VOCS ARE REPORTING LIMITS, NOT METHOD DETECTION LIMITS. THE REPORTING LIMITS ARE GREATER THAN THE METHOD DETECTION LIMITS FOR EACH PARAMETER DUE TO THE LABORATORY REPORTING PROCEDURE.

DUE TO THE DIFFERENCE BETWEEN THE REPORTING LIMIT AND THE METHOD DETECTION LIMIT FOR THE VOC SAMPLES, SOIL CONTAMINATION CAN CONCLUSIVELY BE CONFIRMED ONLY WHERE DETECTED ABOVE THE REPORTING LIMITS. THEREFORE, SOILS WITH PARAMETERS ABOVE THE METHOD DETECTION LIMITS BUT BELOW THE REPORTING LIMITS ARE CLASSIFIED AS SUSPECTED CONTAMINATED SOILS.

Summaries of the laboratory findings for VOCs and SVOCs in soil are provided as Tables 1 and 2, respectively. Copies of the laboratory reports for VOCs and SVOCs are provided as Appendices A and B, respectively. Boring logs associated with the May 2001~~0~~ investigation are provided in Appendix C. ALL OF THE VOC VALUES ITALICIZED IN TABLE 1 INDICATE DETECTION OF THE CHEMICAL OF CONCERN ABOVE THE METHOD DETECTION LIMITS BUT BELOW THE REPORTING LIMITS. THE REVISED LABORATORY REPORTS IN APPENDIX A DENOTE THE SUSPECTED CHEMICALS OF CONCERN WITH A LETTER 'J' NEXT TO THE RESULT.

THE FOLLOWING LIST CONTAINS THIRTY-SEVEN (37) CONFIRMED COMPOUNDS FOUND ON-SITE DURING THE MAY 2001 FIELD INVESTIGATION. THEY ARE CONFIRMED COMPOUNDS AS THEY WERE ALL DETECTED IN ONE OR MORE SAMPLES ABOVE THE LABORATORY REPORTING LIMITS. ~~The following thirty-seven (37) Compounds were detected by the on-site laboratory at concentrations above the method detection limits in soil.~~

- chloromethane (methyl chloride)
- bromomethane
- methylene chloride
- chloroform
- benzene
- trichloroethene

- toluene
- ethylbenzene
- total xylenes
- styrene
- isopropylbenzene (cumene)
- 1,2,3-trichloropropane
- n-propylbenzene
- 1,3,5-trimethylbenzene
- tert-butylbenzene
- 1,2,4-trimethylbenzene
- sec-butylbenzene
- p-isopropyltoluene
- n-butylbenzene
- 1,2,4-trichlorobenzene
- naphthalene
- 2-methylnaphthalene
- methyl 4,-2-propanone (MIBK)
- 2-butanone (MEK)
- acenaphthene
- fluorene
- phenanthrene
- anthracene
- fluoranthene
- pyrene
- benzo(a)anthracene
- chrysene
- benzo(b)fluoranthene
- benzo(k)fluoranthene
- benzo(a)pyrene
- indeno(1,2,3-cd)pyrene
- benzo(g,h,i)perylene

THE FOLLOWING SEVENTEEN (17) COMPOUNDS ARE SUSPECTED CONTAMINANTS FOUND ON SITE, PARAMETERS THAT WERE DETECTED IN ONE OR MORE SAMPLES ABOVE THE METHOD DETECTION LIMITS BUT BELOW THE REPORTING LIMITS.

- TRICHLOROFLUOROMENTHANE
- 1,1-DICHLOROETHENE
- TRANS-1,2-DICHLOROETHENE
- 1,1-DICHLOROPROPENE
- 1,2-DICHLOROETHANE
- CHLOROBENZENE
- BROMOBENZENE
- 1,1,2,2-TETRACHLOROETHANE
- 2-CHLOROTOLUENE
- 4-CHLOROTOLUENE
- 1,3-DICHLOROBENZENE
- 1,4-DICHLOROBENZENE
- 1,2-DICHLOROBENZENE
- 1,2-DIBROMO-3-CHLOROPROPANE
- HEXACHLOROBUTADIENE
- 1,2,3-TRICHLOROBENZENE
- ACETONE

The investigation identified overlapping areas of soil impact: one comprised predominantly of VOCs with few SVOCs, and the other SVOCs with fewer VOCs. The VOC area is slightly smaller and deeper than the SVOC area and covers an area approximately 110 feet by 70 feet. The SVOC affected area is larger, 160 feet by 85 feet, and contains the entire VOC affected area. Depths of contaminants vary across the site, with VOCs ranging from approximately 4 to 16 feet and SVOC ranging from 4 to 9 feet bsg.

Estimates of the extent of soil contamination are presented in plan view on Figures 3 (A and B) and in cross section on Figures 4A through 4C. VOCs and SVOCs were generally found within

the more permeable layers of cinders and ash that were spread across the site at various horizons within the mounded area.

The SVOCs are not associated with the sludge that was stored in the former holding pit. Cinders and spent ash from the on-site boiler house have been disposed in this area for many years. It is likely that the SVOCs identified at the site have leached from these cinders. In addition, kerosene or other petroleum products may have been released into the soil during plant fire brigade training.

4.6 Nature and Extent of Impacts in Groundwater

~~The deepest extent of soil contamination is above the base of the mound, and higher than the natural ground surface. There is no possibility for the soil contamination to leach to the natural groundwater system. Therefore no groundwater is impacted beneath this unit.~~

THE IMPACT OF THE SOIL CONTAMINATION ON THE GROUNDWATER HAS NOT BEEN EVALUATED. A GROUNDWATER SAMPLING PLAN HAS BEEN DEVELOPED TO DETERMINE THE NATURE AND EXTENT OF THE IMPACT ON SHALLOW GROUND WATER IN THE VICINITY OF THE FORMER HOLDING PIT. THE GROUNDWATER SAMPLING PLAN IS INCLUDED IN SECTION 14.1 "SAMPLING PLAN TO DETERMINE IMPACTS TO SHALLOW GROUNDWATER" OF THIS CLOSURE PLAN.

~~However,~~ Perched transient water was identified in five of the 37 borings advanced in May 2001. The five borings containing water were all in the northwestern portion of the mound, and within a tightly limited area, presumably within the same small lens or pocket of saturated material. The deepest saturated materials in the study area are ~~well~~ IN THE ELEVATED FILL AREA AND above the ~~clay-rich~~ natural ground surface. ~~Therefore, this perched water cannot be in hydraulic connection with natural groundwater and does not pose a future risk to groundwater.~~

Samples of the perched water were collected from all five water containing boring locations at depths of 11 to 16 feet. Samples were obtained via 1-inch diameter PVC Geoprobe™ wells with 5-foot screens, using a peristaltic pump. New tubing was used for the collection of each sample. Water samples were collected from borings PB-01-33, PB-01-34, PB-01-35, PB-01-45, and PB-01-46. EACH SAMPLE WAS PLACED INTO 40 ml. septum-capped bottles and submitted to

the on-site laboratories for VOC and SVOC analyses using EPA Methods 8260 and 8270, respectively.

Water samples collected from all five borings indicated low but detectable levels of organic contaminants, generally the relatively soluble VOCs and the SVOCs naphthalene, and 2-methylnaphthalene. The compounds detected in perched water samples include the following:

- benzene
- toluene
- ethylbenzene
- total xylenes
- styrene
- isopropylbenzene (cumene)
- n-propylbenzene
- 1,3,5-trimethylbenzene
- tert-butylbenzene
- 1,2,4-trimethylbenzene
- sec-butylbenzene
- p-isopropyltoluene
- n-butylbenzene
- naphthalene
- 2-methylnaphthalene
- methyl 4,-2-propanone (MIBK)

4.7 Site Conceptual Model

The area of concern is an artificially constructed and elevated mound approximately ~~25~~ 20 feet above natural grade, and several hundred feet in diameter. This mound has gradually risen above the natural grade as fill soil, cinders, brush, and other materials have been deposited here. Due to the non-native lithology, the artificial process of deposition, and mechanical reworking, the distribution of the materials within the mound is unpredictable and subject to dramatic changes over short distances.

The mound can be visualized as numerous laterally discontinuous layers of alternating impermeable clay (representing local fill from construction or grading activities) and permeable cinders from the boiler house. Precipitation that infiltrates vertically through the surficial clay layers may enter, occupy, or migrate through the thin permeable layers of cinders that have been deposited and spread throughout the mound at various times.

This may result in perched groundwater in isolated pockets of cinders in various portions of the mound. ~~This perched water is not in contact with native groundwater, as the bottoms of the perched layers are at higher elevations than the native ground surface.~~ Where the

cinder layers intersect the outer slope of the mound, there is the potential for ex-flow and seeping of transient water from these perched zones.

The former holding pit was excavated into one of the clay-rich soil layers at a time when the mound was approximately 4 feet lower than at present. The former holding pit was used for approximately 2 years to temporarily hold semi-solid wastes prior to off-site disposal. Sand was mixed with the sludge to decrease the moisture content prior to transportation to the permanent disposal site. When the pit was abandoned, the contents and clay dikes and liner were removed, and the pit sidewalls were pushed into the pit bottom. The area was re-graded and approximately four feet of fill was eventually deposited over the former pit area. Some of the mixing sand may have been regraded into the fill, possibly producing thin and isolated soil layers with higher relative permeability. The manner in which the berms were graded and spread over the site has lead to a much larger foot-print of contamination than would be expected.

Based on conversations with plant personnel and the soil profile observed during the previous limited soil investigation, the area formerly occupied by the holding pit has the following general lithologic profile:

- From 0 to 4 feet below grade – more recent fill material consisting of clay, cinder, and construction debris.
- From 4 feet to 6 feet below grade – mixed materials consisting of the former collapsed pit berms and sand used for mixing.
- From 6 feet to about ~~25~~ 20 feet below grade - older (pre-holding pit) fill material consisting of clay with some sand or silt and some cinders.
- From about ~~25~~ 20 feet to at least ~~35~~ 30 feet below grade – paleosol with native clay and VARIABLE fine textured sediments

Contaminant concentrations are highest within the horizon associated with the bottom of the former clay pit, or at 4 to 6 feet below the current ground surface. Where the mound is higher, or where leaching may have occurred, contaminants are found at deeper depths, generally in cinder layers. Concentrations GENERALLY decrease with depth, DROPPING TO NON-DETECT OR VERY LOW CONCENTRATIONS, ~~generally to non-detect levels,~~ between 9 and

16 feet bsg, depending on location. The underlying clay-rich native soil is expected to act as a low permeability barrier to continued vertical migration.

A schematic cross sectional conceptual model representation of the former holding pit is provided as Figure 5. From this model, it is apparent that the potential exposure routes are limited. ~~There is not pathway for contaminants to enter groundwater, and groundwater is not used within a mile of the site.~~ No subsurface structures or basements are in the mound, eliminating the indoor air volatilization pathway. The cover material prohibits direct contact with the contaminated soil. There is a potential pathway for direct contact or ecological receptors being affected by seeps that may discharge from limited locations around the mound~~—however, the presence of contaminants in any seep water has not been confirmed~~. A PLAN FOR SAMPLING THE SEEPS IS PRESENTED IN SECTION 14.2.

4.8 Local Occurrence of Groundwater

Groundwater was not encountered in any boring completed in the preliminary (December 1999) soil investigation. Borings were advanced to a depth of 12 feet below grade with no observed soil saturation. Any moisture observed in soils was attributed to transient water, as the borings were generally too shallow to extend below the natural grade. Perched water was encountered in five borings during the May 2001~~0~~ investigation.~~, but this was determined not to be in connection with groundwater. OEPA personnel on-site during the investigation activities concurred with this determination.~~

~~There are no deep wells near the study area. Thus information related to the natural groundwater under the facility is directly observable.~~ According to the Henry County Health Department, few water users obtain water from groundwater resources in the Napoleon area. Groundwater is not generally available in the unconsolidated clay-rich sediments found above bedrock in this part of the County. Some private wells may be present beyond the limits of the Napoleon water supply distribution system, but these generally obtain water from the deeper carbonate bedrock aquifers in the area. The water quality and quantity is extremely variable in these wells. Most public and industrial water supply systems obtain surface water from the Maumee River.

The potential for groundwater impact at this site is ~~extremely~~ low, due to the limited penetration depth of infiltrating chemicals. Perched water observed in several borings on the north portion of the study area is located in fill materials that are above the natural grade, and the natural clay soils. ~~There is no potential for this water to be in hydraulic connection with natural groundwater. The vertical extent of contamination is limited to soil above natural grade; therefore, groundwater cannot be affected and groundwater is not an exposure pathway for this investigation~~

4.9 ~~Vertical and Horizontal Extent~~Occurrence of VOCs in the Area of Impact

The preliminary and follow-up investigations at this site have shown that the area of impact may be 4 times larger than originally expected, based on the size of the original holding pit area. The horizontal and vertical extent of ~~organic compounds~~VOCs was delineated to ~~non-detect~~THE SITE-SPECIFIC MULTIPLE CHEMICAL ADJUSTED DIRECT CONTACT CLOSURE VALUES (SEE SECTION 13) ~~concentrations~~ across the site. Based on OEPA provided site-specific ~~multiple chemical adjusted direct contact~~ closure values ~~(see Section 13)~~, the area of VOC impact requiring remediation is roughly 110 feet by 70 feet, and is generally from 8 to 16 feet deep. The vertical and horizontal extent of VOC contamination above these criteria is shown on Figures 3A-3B and the vertical extent is also evident in the cross-sections (Figures 4A through 4C). TO DATE THE VOC DELINEATION HAS BEEN COMPLETED TO THE REPORTING LIMITS OF THE ON-SITE MOBILE LABORATORY. THESE REPORTING LIMITS ARE HIGHER THAN THE METHOD DETECTION LIMITS. WHEN COMPARED TO METHOD DETECTION LIMITS THE DELINEATION IS UNCERTAIN, REQUIRING ADDITIONAL INVESTIGATION. A SAMPLING PLAN IS PROVIDED IN SECTION 14.7 TO ACHIEVE THIS GOAL.

4.10 Occurrence of SVOCs in the Area of Impact

Following the preliminary investigation, the Ohio EPA requested that the soil under the former holding pit be evaluated for SVOCs based on the detection of naphthalene. The follow-up investigation confirmed that naphthalene and other SVOCs were present in the soil under the former holding pit, and in other parts of the mound. The area of SVOC impact is larger than that for VOCs, covering an area approximately 160 feet by 85 feet, and completely overlapping the VOC area of impact. The vertical extent of SVOC impact generally is limited to 9 feet or less across the investigation area. The SVOCs are more prevalent in the south-southwest portion of the site, and may be related to sources other

than the former holding pit, including the cinders and ash from the boiler house and petroleum fuels used during firefighter training drills. THE HORIZONTAL AND VERTICAL EXTENT OF THE SVOC CONTAMINATION WAS DELINEATED TO NON-DETECT CONCENTRATIONS ACROSS THE SITE (FIGURES 3A AND 3B).

5.0 DETAILED DRAWING OF UNIT TO BE CLOSED

Figure 4A presents the estimated location of the former holding pit. This location is based on the recollection of facility personnel involved with operation or decommissioning of the holding pit. Ground surface contours are also presented on this figure.

Contaminants from sources other than spent coating materials and solvents appear to have impacted the soils beyond the former holding pit location. The SVOCs identified in soils may originate from cinder and ash material from the boiler house, or from petroleum product used on-site. Site personnel indicate that this area was used to train the facility fire brigade in extinguishing chemical fires. While an effort was made to contain the accelerants used to fuel the training fires, kerosene or some other petroleum product may have been released to the environment. Chemicals associated with petroleum product releases are considered non-hazardous under RCRA, unless hazardous by characteristic.

5.1 Maximum Volume of Hazardous Waste

Based on the original dimensions of the holding pits (35 feet long x 20 feet wide x 2.5 feet high), the maximum volume of sludge that may have been present at any one time is estimated to be 1,400 cubic feet, assuming the sludge never exceeded a depth of 2 feet. This volume estimate is considered conservative, as the calculation assumes that the pits were filled to capacity and that the berm sidewalls were vertical. The actual maximum volume of material stored in the holdings pits may have been less.

The volume of soil that has been impacted above site-specific direct contact cleanup values is estimated to be 3,300 CUBIC YARDS. ~~between 2,000 and 3,000 cubic yards.~~ This does not include approximately 4 feet (~~2,000~~2,400 cubic yards) of relatively unaffected overburden that has been deposited over the former holding pit.

6.0 LIST OF HAZARDOUS WASTES

6.1 Chemicals of Concern

The materials stored in the former holding pit generally were associated with wastes recovered from the enamel coating process for the inside of food containers. According to the Material Safety Data Sheets (MSDS) provided for these enamels (copies submitted to OEPA on April 20, 2000), the chemical constituents that may have been present in the waste materials stored in the holding pit include the following:

- Alcohols - n-butanol
- Ethers - diethyl glycol monobutyl ether, ethylene glycol monobutyl ether, glycol ether, and propylene glycol methyl ether
- Ketones – cyclohexanone, 2-butanone (MEK), methyl isobutyl ketone (MIBK)
- Formaldehyde
- Xylenes

THE OHIO EPA HAS ASSIGNED THE WASTE CODE D001 TO THIS SITE DUE TO THE ORIGINAL WASTES TEMPORARILY STORED IN THE HOLDING PIT. Chemicals that were actually detected in soils under the former holding pit during the limited preliminary and follow-up soil investigation include the following:

- chloromethane (methyl chloride)
- bromomethane
- methylene chloride
- chloroform
- benzene
- trichloroethene
- toluene
- ethylbenzene
- total xylenes
- styrene
- isopropylbenzene (cumene)
- 1,2,3-trichloropropane
- n-propylbenzene
- 1,3,5-trimethylbenzene
- tert-butylbenzene
- 1,2,4-trimethylbenzene
- sec-butylbenzene
- p-isopropyltoluene
- n-butylbenzene
- 1,2,4-trichlorobenzene
- naphthalene
- 2-methylnaphthalene
- methyl 4,-2-propanone (MIBK)
- 2-Butanone (MEK)
- acenaphthene
- fluorene
- phenanthrene
- anthracene
- fluoranthene
- pyrene
- benzo(a)anthracene
- chrysene
- benzo(b)fluoranthene
- benzo(k)fluoranthene
- benzo(a)pyrene
- indeno(1,2,3-cd)pyrene
- BENZO(G,H,I)PERYLENE
- 1,4-Dichlorobenzene (at concentrations below the practical quantification limit

6.2 Suspected Chemicals of Concern

Field preservation of the soil samples prior to VOC analysis introduced significant matrix interference, resulting in elevated reporting limits. The following seventeen (17) compounds are suspected contaminants found on site. These are parameters that were detected in one or more samples above the method detection limits but below the reporting limits.

- Trichlorofluoromenthane
- 1,1-Dichloroethene
- Trans-1,2-Dichloroethene
- 1,1-Dichloropropene
- 1,2-Dichloroethane
- Chlorobenzene
- Bromobenzene
- 1,1,2,2-Tetrachloroethane
- Acetone
- 2-Chlorotoluene
- 4-Chlorotoluene
- 1,3-Dichlorobenzene
- 1,4-Dichlorobenzene
- 1,2-Dichlorobenzene
- 1,2-Dibromo-3-Chloropropane
- Hexachlorobutadiene
- 1,2,3-Trichlorobenzene

It should be noted that all of the suspected chemicals of concern were detected at very low concentrations (ranging from 6 ppb to 160 ppb), with the exception of acetone (108 ppb to 840 ppb).

The lab reports were re-issued to report all detectable concentrations above the method detection limits. The mobile laboratory contractor, New Age Landmark, Inc., noted that the reason for setting the reporting limits above the method detection limits was to avoid false positive readings from compounds "hanging up" in the lab equipment. New Age Landmark notes that low concentrations of acetone, MEK, methylene chloride, and TCE can be attributed to lab error. A copy of the New Age Landmark correspondence is included in the beginning of Appendix A.

7.0 REMOVAL OF HAZARDOUS WASTES AND SOIL REMEDIATION

All hazardous wastes stored in the former holding pit were removed from the site in 1983. The residual soil contamination revealed in the investigations is the focus of the cleanup effort at this site.

Many options were evaluated for addressing the residual contaminants in the soil and transient perched water. General remedial approaches considered for this site are summarized and presented in Appendix D. Of these, three options – on-site land farming, on-site medium-temperature thermal desorption, and off-site disposal at a hazardous waste facility – were considered most feasible.

Based on the site conditions, the available facilities at the plant, the relative cost of each option, the efficacy of each option, and future liabilities associated with each option, Campbell Soup Company has elected to remediate the former holding pit site by excavating the impacted soil and treating it on site using medium-temperature thermal desorption (MTTD). This approach offers the following advantages:

- Long-term liabilities associated with the contaminated soil will be reduced or eliminated.
- Long term monitoring requirements and/or permits will not be required .
- The approach focuses on destruction of the contaminants, rather than long-term containment or transfer to other media.
- The relative cost of implementation is less than the other approaches available for handling the proposed volumes of soil.
- Sufficient land and support facilities are available for an on-site MTTD operation.
- The MTTD approach provides the best protection against unknown future impacts to ecological systems or environmental pathways.

SOILS WILL BE CHARACTERIZED PRIOR TO INITIATING CLEANUP TO VERIFY THEY ARE NON-HAZARDOUS. THE CHARACTERIZATION PROCESS IS DESCRIBED IN SECTION 14.4. AFTER VERIFICATION OF NON-HAZARDOUS SOIL CONDITIONS, ~~T~~the soil will be excavated in three to

four stages. In the first stage soil will be removed from the ground surface (about 686 to 689 feet above mean sea level (MSL)) to an elevation of 680 feet MSL. The second stage will remove impacted soils between 680 and 675 feet MSL. The third stage will remove soils between 675 and 670 feet (Figures 3A and 3B). If necessary, a fourth stage (below 670 feet MSL, Figure 3B) will be excavated to remove soil that does not satisfy the confirmation sampling goals for site cleanup and closure certification.

Prior to initiating excavation, the area targeted for remediation, based on the analytical results from the December 1999 and May 2001~~0~~ soil investigations, will be surveyed and marked off at the ground surface to serve as a guide for excavators. Because the upper several feet of overburden is not impacted and does not require treatment, the first excavation stage soils will be screened for impact. These soils will be removed from the marked-off area in one-foot lifts and transported to a temporary soil screening and staging area to determine whether treatment is required. Soils will be screened using a PID and placed into one of three areas: "suspected clean" (PID = 0 to 10 ppm), "contaminated" (PID > 100ppm), and "indeterminate" (PID = 10 ppm to 100 ppm).

Soil identified as contaminated will be moved to the pre-remediation staging area for immediate treatment. Indeterminate soils will be reevaluated in smaller sub-units and either confirmed clean or treated. Suspected clean soils will be sampled at a frequency of one sample per 100 cubic yards and analyzed for VOCs and SVOCs. Soils shown to be below the designated cleanup criteria will ultimately be returned to the excavation as backfill.

Excavation and removal of the un-impacted overburden will continue progressing deeper in one-foot lifts until contamination is encountered. Excavation will then progress in five foot lifts until the elevation of ~~685~~ 680 feet ABOVE MSL is obtained. IT IS ESTIMATED THAT 4,300 CUBIC YARDS OF SOIL WILL BE REMOVED DURING THE FIRST STAGE OF EXCAVATION. OF THE SOIL REMOVED DURING THE FIRST PHASE OF EXCAVATION IT IS ESTIMATED THAT APPROXIMATELY 1,900 CUBIC YARDS WILL BE TRANSPORTED TO THE MTTD FOR TREATMENT.

All soils within the areas delineated for the second and third stages of excavation will be considered impacted, and immediately transported to the MTTD soil treatment staging area.

IT IS ESTIMATED THAT 1,250 CUBIC YARDS OF CONTAMINATED SOIL WILL BE REMOVED AND TREATED DURING THE SECOND STAGE OF EXCAVATION AND 150 CUBIC YARDS OF CONTAMINATED SOIL WILL BE REMOVED AND TREATED DURING THE THIRD STAGE OF EXCAVATION.

Prior to conducting excavation in areas where transient perched water is present, the existing 1-inch diameter Geoprobe™ wells and additional dewatering points will be used to extract and dewater the saturated permeable sediments as feasible. The excavation will then be advanced in such a manner as to create a sump sufficient to collect any remaining liquid for removal to a vacuum truck. This water will be disposed at the on-site wastewater treatment plant (WWTP)~~., or if necessary, at a licensed liquid hazardous waste disposal facility. If off-site transportation of liquid wastes is necessary, proper DOT waste manifests will be generated and submitted to the OEPA.~~

Soils slated for treatment will be loaded onto the conveyors to the MTTD. Cohesive soils are passed through grinders and shredders that reduce the soil clumps to 2-inches in diameter or less. Soils enter the rotating kiln and are subjected to ~~8~~550 deg. F. temperatures, sufficient to desorb all organic VOCs and SVOCs. Treated soils are quenched with water and cooled to 212 deg. F. before exiting the reactor. Treated soils will be sampled IN ACCORDANCE WITH SECTION 14.5. ~~at a frequency of 1 sample per 500 tons to verify cleanup goals have been met.~~ Treated and tested soil will be returned to the excavation as clean backfill.

Off-gasses from the treatment reactor are passed through a bag-house to recover fine particulates, and then passed though a high temperature (1600 to 1750 deg. F.) afterburner and oxidizer to prevent discharge of contaminants to the air. ~~Emissions are regulated in accordance with an air quality permit~~

The MTTD reactor and excavation equipment will be provided by M. L. Chartier, Inc., Environmental Services, located at 9195 Marine City Highway, Fair Haven, Michigan. PER THE MANUFACTURERS RECOMMENDATION, WE DO NOT PLAN TO RUN A BENCH SCALE TRIAL OR A TEST BURN FOR TREATING THE CONTAMINATED SOILS ON-SITE WITH THE MTTD.

7.1 Equipment and protocol

The excavation and soil treatment protocol is described above in Section 7.0. Implementation of the remedial action described above will require the materials and equipment summarized in the list below. This is not a comprehensive list of all materials and equipment that will be required, and is subject to change and modification:

- Medium-temperature thermal desorption reactor and associated control centers, support machinery and conveyors.
- Heavy earth-moving equipment, including excavators and front-end loaders for excavating soil and depositing it to soil segregation and treatment staging areas, and returning treated soil to the excavation.
- Visqueen plastic sheeting for temporary storage and covering of soil in the pre-treatment segregation and staging areas and containment in decontamination zones.
- Photoionization detectors and laboratory sample jars to screen soils and confirm screening results for segregating soil and for evaluating remediation effectiveness.
- Vacuum truck for collecting and transporting a limited volume of perched transient water to the on-site WWTP~~, or a hazardous waste facility, depending upon analytical characteristics.~~
- Clean DOT approved 55-gallon drums, water tanks, sprayers, and plastic sheeting to facilitate decontamination of personal equipment and sampling tools.
- High-pressure steam washing equipment and suitable rinseate collection equipment to facilitate decontamination of large earth-moving equipment and trucks.
- Natural gas, water, and electricity connections to support MTTD operations.

8.0 SCHEDULE FOR CLOSURE

The proposed schedule for completing the unit closure and conducting residual soil remediation is presented below: The OEPA will be notified at least five days in advance of the activities indicated. A Professional Engineer licensed in the state of Ohio will be present for the activities indicated. A representative of the engineer may substitute for the engineer during portions of selected activities, as indicated by the asterisk.

Activity	Days after OEPA Closure Plan Approval	Notification to OEPA	PE On-Site
Complete Site Health & Safety Plan	30	No	No
TCLP ANALYSIS	30	NO	NO
INSTALL MONITORING WELLS AND ADDITIONAL SITE DELINEATION SAMPLES	60	YES	NO
Obtain quotations from contractors and schedule site closure activities	~~75~~80	No	No
Survey site and conduct pre-closure briefings with contractors and OEPA	~~120~~130	Yes	Yes*
Initiate soil excavation and soil treatment	~~135~~140	Yes	Yes*
VERIFY INITIAL ELEVATION OF SOIL CONTAMINATION	145	YES	YES
Complete excavation and soil treatment And collect closure verification samples	~~150~~170	No	Yes*
Receive results of closure verification Sampling	~~165~~185	Yes	No
Conduct engineer inspection and certification of site closure*	~~180~~195	Yes	Yes
Complete excavation backfill and re-grading	~~195~~210	Yes	No

*A CERTIFICATION REPORT WILL BE SUBMITTED TO THE OHIO EPA WITHIN 60 DAYS OF COMPLETION OF FIELD WORK.

9.0 OTHER PERMITS

9.1 Air Emissions and Wastewater

~~The Air Quality Division of the OEPA will be contacted prior to implementing remedial action to determine the requirements for discharging air emissions from the MTTD unit.~~ Emissions from the MTTD are passed through a high-temperature afterburner and oxidized prior to discharge~~, and air quality issues with the discharge should not be an issue~~. THE MAXIMUM EXPECTED EMISSIONS OF ORGANICS FROM THE AFTERBURNER IS LESS THAN 15 LBS/DAY. THIS ESTIMATE IS BASED ON THE FOLLOWING:

- A CONSERVATIVE 98% DESTRUCTION RATE OF VOLATILE ORGANIC COMPOUNDS IN THE AFTERBURNER,
- TREATMENT OF 500 TONS OF SOIL PER DAY, AND
- THE AVERAGE CONCENTRATION OF ORGANIC COMPOUNDS IN THE SOIL, BASED ON THE MAY 2001 FIELD WORK.

DUE TO THE MAXIMUM AMOUNT OF ORGANIC EMISSIONS, INSTALLATION OF THE MTTD IS EXEMPT FROM OBTAINING AN AIR PERMIT PER THE OHIO ADMINISTRATIVE CODE 3745-31-03 (4) (D).

DURING IMPLEMENTATION OF THE EXCAVATION OF THE REMEDIAL ACTION, SOME WASTEWATER WILL BE GENERATED AS TRANSIENT PERCHED WATER IS EXTRACTED FROM THE NORTHWEST PORTION OF THE CLEANUP AREA. CAMPBELL'S ON-SITE WWTP CAN HANDLE THE CONCENTRATIONS OF ORGANICS IN THE PERCHED WATER PER THE ANALYTICAL DATA COLLECTED DURING THE MAY 2001 FIELD INVESTIGATION. THEREFORE, THE PERCHED WATER WILL BE LOADED INTO A VACUUM TRUCK AND TRANSPORTED TO THE ON-SITE WWTP FOR DISPOSAL.

DURING THE UPCOMING REMEDIATION FIELDWORK ADDITIONAL WASTEWATER WILL BE GENERATED AS SURFACE WATER COMES INTO CONTACT WITH THE CONTAMINATED SOILS AND AS RINSEATE WATER IS GENERATED FROM DECONTAMINATION PROCESSES. WE ANTICIPATE THAT THE PERCHED WATER WILL HAVE THE HIGHEST CONCENTRATIONS OF ORGANICS, DUE TO ITS CONTINUOUS CONTACT WITH THE CONTAMINATED SOILS. THEREFORE, THE ON-SITE WWTP WILL BE ABLE TO ACCEPT THE SURFACE WATER AND RINSEATE WATER GENERATED DURING THE FIELDWORK AND NO PRETREATMENT ANALYSIS ARE NECESSARY.

~~During implementation of the excavation of the remedial action, some wastewater will be generated as transient perched water is extracted from the northern portion of the cleanup area. All water generated will be loaded into a vacuum truck and, if appropriate, transported to the on-site WWTP for disposal. If analytical data shows that the liquid is considered hazardous, the water will be transported under proper DOT procedures and waste transportation manifest documentation to a licensed hazardous liquid waste facility.~~

~~Some wastewater will also be generated during decontamination procedures. This water will be disposed at the on site WWTP, unless shown to be hazardous.~~

10.0 PERSONNEL HEALTH AND SAFETY

Prior to initiating field activities, a Site Health & Safety Plan will be prepared in accordance with OSHA, 29 CFR 1910.120. The Site Health & Safety plan will be provided to any subcontractor involved in the on-site implementation of this work plan. An on-site meeting will be held with contractors prior to initiating field activities to ensure they understand the potential hazards associated with the implementation of this work plan.

The Health & Safety plan document will include the following information:

- key personnel and responsibilities
- training and medical surveillance requirements
- site description
- work objectives
- hazard evaluation
- air monitoring
- personal protective equipment
- decontamination and site control procedures
- residuals management
- emergency information and contacts
- contingency plan for emergencies
- spill containment procedures, and
- confined space entry procedures

11.0 DECONTAMINATION EFFORTS

11.1 Decontamination of Equipment and Tools

All hand tools used to move, sample, or otherwise handle potentially contaminated soil will be decontaminated prior to leaving the restricted zone. Smaller tools and equipment will be washed with a Liquinox solution and rinsed using a triple-rinse protocol. Larger tools and heavy equipment will be decontaminated using a steam cleaner prior to exiting the site exclusion zone. All decontamination will take place over Visqueen plastic sheeting, or another suitably impermeable surface. Wastewater associated with the decontamination processes will be collected and disposed in the influent header of the on-site WWTP. It is expected that 500 to 1000 gallons of decontamination liquids will be generated and disposed at the on-site WWTP facility.

11.2 CROSS CONTAMINATION MANAGEMENT

STANDARD CROSS-CONTAMINATION ABATEMENT MEASURES WILL BE TAKEN TO ENSURE THE CONTAMINANTS IN THE SOIL WILL NOT BE TRANSFERRED TO ANOTHER MEDIA DURING RAINFALL EVENTS. RAINWATER THAT COMES INTO CONTACT WITH THE CONTAMINATED SOIL WILL BE DIVERTED TO A COLLECTION SUMP AREA, LINED WITH VISQUEEN PLASTIC SHEETING. ANY RAINWATER THAT COLLECTS IN THE SUMP AREA WILL BE PUMPED TO A TEMPORARY HOLDING TANK, AND ULTIMATELY DISPOSED OF AT THE ON-SITE WWTP. EQUIPMENT WILL BE CLEANED OF POTENTIALLY CONTAMINATED SOIL PRIOR TO LEAVING THE EXCAVATION AND TREATMENT AREAS.

12.0 CLOSURE STRATEGY / REMEDIATION STANDARDS FOR SOIL (INCLUDING GROUND WATER)

12.1 Naturally Occurring Compounds

There are no chemicals of concern at this site that are naturally occurring. All closure criteria are risk-based cleanup values determined as described below.

12.2 Compounds Not Naturally Occurring

Thirty-seven chemicals of concern have been identified above laboratory ~~method detection~~REPORTING limits at this site. All compounds are either VOCs or SVOCs. Because there are multiple chemicals of concern in a number of soil borings and soil samples, the Single Chemical Generic Cleanup Numbers (Table 1 of Appendix D, Closure Plan Review Guidance for RCRA Facilities, Part II, OEPA, March 1999) cannot be used as cleanup criteria. ADDITIONALLY, SEVENTEEN SUSPECTED VOCS OF CONCERN WERE DETECTED BELOW THE LABORATORY REPORTING LIMIT.

Risk assessors at the OEPA assisted Campbell Soup Company with development of site-specific risk-based cleanup standards, adjusted for multiple chemicals. The general strategy for meeting the cleanup numbers at this site involves removal through excavation and on-site treatment using medium-temperature thermal desorption. Treated soil will be returned to the excavation once it is demonstrated that cleanup criteria are met by the treatment process.

13.0 RISK-BASED REMEDIATION STANDARDS

~~There is no contact or potential contact of chemicals of concern with naturally occurring groundwater; therefore, all groundwater related exposure pathways are considered closed.~~ There is no potential for volatilization of chemicals of concern to impact indoor or ambient air quality; therefore exposure pathways based on volatilization are not applicable. The site specific risk-based cleanup numbers for this site are based on the direct contact exposure pathway. THE POTENTIAL FOR RISK ASSOCIATED WITH DIRECT CONTACT WITH GROUNDWATER WILL BE INVESTIGATED FURTHER DURING ADDITIONAL SITE INVESTIGATION ACTIVITIES (SEE SECTION 14.1).

Risk-based residential direct contact cleanup numbers adjusted for multiple chemicals, as provided by OEPA risk assessors on ~~October 17, 2001~~MAY 20, 2002, will be used as the basis of this site closure. These cleanup numbers are summarized in Table 3.

While ecological and environmental exposures have not been identified and are not expected, there is limited potential for impacts to a small drainage ditch located north of the mound on which the former holding pit was located. The ditch ultimately empties to the Maumee River after passing through the plant facility and under an elevated cooling water/steam condensate pipeline bridge. The ditch passes within 150 to 200 feet of the unit, approximately 30 to 50 beyond the north end of the base of the mound. This ditch may contain aquatic insects, invertebrates, and/or small vertebrates. The ditch will be sampled AS OUTLINED IN SECTION 14.2. ~~to determine whether seeps from the side of the mound have discharged to the ditch, affecting water quality in the ditch. Samples will be collected at the nearest point to the unit, at a location 100 yards up stream from this point, and at a location 100 yards down stream from this point, and analyzed for the chemicals of concern.~~

14.0 SAMPLING PLAN AND ANALYTICAL PROCEDURES

SAMPLING PLANS AND ANALYTICAL PROCEDURES HAVE BEEN DEVELOPED FOR EIGHT SEPARATE ACTIVITIES INCLUDED IN THIS CLOSURE PLAN. THE FIRST THREE SAMPLING PLANS, DESCRIBED IN SECTIONS 14.1 THROUGH 14.3, IDENTIFY THE PROCEDURES FOR WATER SAMPLING AND ANALYSIS. SAMPLING PLANS FOR SOIL CHARACTERIZATION ARE OUTLINED IN SECTIONS 14.4 THROUGH 14.6. THE SEVENTH SAMPLING PLAN (SECTION 14.7) DESCRIBES THE SITE DELINEATION SAMPLING PLAN. THE LAST SUBSECTION, SECTION 14.8, IS THE SAMPLING HANDLING AND ANALYSIS PLAN FOR ALL PORTIONS OF THE FIELD WORK.

14.1 SAMPLING PLAN TO DETERMINE IMPACTS TO SHALLOW GROUNDWATER

TO ADEQUATELY CHARACTERIZE ANY EFFECTS TO SHALLOW GROUNDWATER IN THE NATURAL UNCONSOLIDATED ZONE, THREE MONITORING WELLS WILL BE INSTALLED IN THE FIRST ENCOUNTERED SATURATED ZONE. THREE LOCATIONS AT THE EDGE OF THE ELEVATED AREA, AS DEPICTED IN FIGURE 6, HAVE BEEN SELECTED FOR THE INSTALLATION OF THE THREE SHALLOW MONITORING WELLS. THE LOCATIONS WERE SELECTED BASED ON THEIR PROXIMITY TO KNOWN PERCHED WATER LAYERS IN THE ELEVATED AREA. ACTUAL WELL LOCATIONS WILL BE SELECTED BASED ON INPUT FROM ON-SITE OEPA REPRESENTATIVES.

EACH WELL WILL BE INSTALLED IN SOIL BORINGS DRILLED USING HOLLOW STEM AUGER DRILLING TECHNIQUES, OR AN EQUIVALENT TECHNIQUE. CONTINUOUS SPLIT-SPOON SAMPLES WILL BE COLLECTED DURING THE INSTALLATION OF THE SOIL BORINGS. A PHOTOIONIZATION DETECTOR (PID) WILL BE USED TO CONDUCT FIELD SCREENING OF EACH SOIL SAMPLE AT TWO-FOOT INTERVALS. UNUSUAL VISUAL OR OLFACTORY OBSERVATIONS WILL BE SCREENED SEPARATELY. IF PID READINGS INDICATE ORGANIC VAPORS ARE PRESENT IN THE SOIL A SOIL SAMPLE WILL BE COLLECTED FROM THE INTERVAL WITH THE HIGHEST PID READING. OTHERWISE, TWO SOIL SAMPLES WILL BE COLLECTED, ONE FROM THE UPPER THREE FEET AND ONE FROM BOTTOM OF THE BORING. IF WATER IS ENCOUNTERED, A WATER SAMPLE WILL BE COLLECTED IN PLACE OF THE BOTTOM SOIL SAMPLE. COLLECTED SAMPLES WILL BE SUBMITTED TO A FIXED LABORATORY FOR ANALYSIS OF VOCS AND SVOCS PER US EPA SW-846 METHODS.

SOIL BORINGS WILL BE TERMINATED AT THE FIRST AVAILABLE WATER OR AT 20 FEET BELOW NATURAL GRADE, WHICHEVER IS ENCOUNTERED FIRST. THE SURFACE OF THE NATURAL GRADE WILL BE DETERMINED BY VISUAL INSPECTION OF THE SOIL SAMPLES TO POSITIVELY IDENTIFY THE NATIVE SOIL HORIZON BENEATH THE SITE. THE SOIL BORING WILL ADVANCE 20-FEET BELOW THE FIELD VERIFIED SOIL HORIZON OR TO APPROXIMATELY 650 FEET ABOVE MSL (BASED THE ESTIMATED NATURAL GRADE ELEVATION OF 670 ABOVE MSL, ESTIMATED FROM HISTORICAL TOPOGRAPHIC MAPS (APPENDIX G)).

MONITORING WELLS WILL BE INSTALLED IN EACH BORING REGARDLESS OF THE QUANTITY OF WATER OBSERVED DURING COMPLETION OF THE BORING. THE WELL SCREEN WILL BE PLACED AT THE SHALLOWEST INTERVAL THAT IS MOST LIKELY TO PRODUCE GROUNDWATER. EACH WELL WILL BE CONSTRUCTED OF 2-INCH DIAMETER SCHEDULE-40 PVC CASING WITH 2-INCH DIAMETER SCHEDULE-40 PVC 10-SLOT SCREENS. A SAND PACK WILL BE PLACED IN THE ANNULAR SPACE EXTENDING TWO FEET ABOVE THE SCREEN. THE REMAINDER OF THE ANNULAR SPACE WILL BE FILLED WITH BENTONITE GROUT TO THE GROUND SURFACE. EACH WELL WILL BE DEVELOPED USING SURGING AND BAILING, AND OVERPUMPING OR OTHER STANDARD TECHNOLOGIES. LITHOLOGICAL DESCRIPTIONS AND WELL CONSTRUCTION INFORMATION, INCLUDING SURVEYED ELEVATIONS, WILL BE LOGGED FOR EACH BORING AND MONITORING WELL.

AFTER A PERIOD OF ONE WEEK, GROUNDWATER SAMPLES WILL BE COLLECTED FROM EACH MONITORING WELL USING DISPOSABLE BAILERS. A MINIMUM OF THREE WELL VOLUMES WILL BE PURGED PRIOR TO COLLECTING THE SAMPLE. IF A WELL IS PURGED DRY, SAMPLES WILL BE COLLECTED AFTER THE WELL HAS RECHARGED. GROUNDWATER SAMPLES WILL BE SUBMITTED TO A FIXED LABORATORY FOR ANALYSIS OF VOC'S PER METHOD 8260B AND SVOC'S PER METHOD 8270. IF GROUNDWATER IS IMPACTED BY THE CHEMICALS OF CONCERN, THEN A GROUNDWATER PATHWAY CLOSURE PLAN WILL BE IMPLEMENTED.

14.2 SURFACE WATER SAMPLING PLAN

WATER WAS OBSERVED VENTING FROM THE WEST FACE AND OTHER PORTIONS OF THE MOUNDED AREA FOLLOWING A RAIN EVENT THAT OCCURRED DURING THE MAY 2001 FIELD INVESTIGATION. THE FOLLOWING SAMPLING PLAN HAS BEEN DEVELOPED TO DETERMINE IF WATER VENTING FROM

THE SIDES OF THE ELEVATED AREA HAS BEEN AFFECTED BY THE SOIL AND PERCHED WATER CONTAMINATION ON THE MOUND.

SURFACE WATER SAMPLES WILL BE COLLECTED FROM THE WEST FACE OF THE ELEVATED AREA AND AT ANY OTHER LOCATIONS WHERE WATER IS OBSERVED VENTING FROM THE SIDE OF THE ELEVATED AREA. IF NO WATER IS OBSERVED DURING FIELD WORK, SURFACE WATER SAMPLES WILL BE COLLECTED FROM THE ON-SITE DITCH, NORTH OF THE MOUNDED AREA. DITCH SAMPLES WILL BE COLLECTED AT THE NEAREST POINT TO THE UNIT, AT A LOCATION 100 YARDS UP-STREAM FROM THIS POINT, AND AT A LOCATION 100 YARDS DOWN-STREAM FROM THIS POINT. THE WATER SAMPLES WILL BE SUBMITTED TO A FIXED LABORATORY FOR ANALYSIS OF VOC'S PER METHOD 8260B AND SVOC'S PER METHOD 8270.

14.3 FIELD GENERATED WATER COLLECTION AND DISPOSAL PLAN

DURING SITE CLOSURE FIELD ACTIVITIES, WASTEWATER WILL BE GENERATED WHEN PERCHED WATER IS REMOVED FROM THE MOUND, WHEN SURFACE WATER (RAIN) COMES INTO CONTACT WITH THE CONTAMINATED SOILS, AND WHEN EQUIPMENT IS DECONTAMINATED AND RINSEATE WATER IS GENERATED. DUE TO ITS CONTINUOUS CONTACT WITH THE CONTAMINATED SOILS, THE PERCHED GROUNDWATER WILL HAVE THE HIGHEST CONCENTRATIONS OF ORGANICS. THE ON-SITE WWTP CAN HANDLE THE CONCENTRATIONS OF ORGANICS IN THE PERCHED WATER. THEREFORE, THE PERCHED WATER, THE SURFACE WATER, AND THE RINSEATE WATER WILL BE DISPOSED OF AT THE ON-SITE WWTP. NO PRE-TREATMENT ANALYSIS WILL BE RUN ON THE WATER DISCHARGED TO THE WWTP.

THE WATER GENERATED DURING FIELD WORK WILL BE STORED IN A MOBILE 6,500 GALLON STAINLESS STEEL TANK. AS NEEDED, WATER WILL BE REMOVED FROM THE TANK VIA VACUUM TRUCK AND TRANSPORTED TO THE ON-SITE WWTP. THE WASTEWATER WILL NOT LEAVE THE CAMPBELL SITE, THEREFORE NO WASTE MANIFESTS WILL BE GENERATED FOR ITS TRANSPORTATION.

14.4 Waste Characterization Sampling Plan

Elevated concentrations of SVOC and VOCs were identified in soils located in the study area. The waste characterization sampling plan is designed to determine if the contaminated soils on-site are hazardous.

We will submit soil samples from four locations for TCLP analysis. The samples will be collected from near known areas affected with organic compounds, specifically PB-01, PB-01-34, PB-01-32, and PB-01-28. To ensure that representative samples of the on-site materials will be collected, a vertical composite sample will be prepared at each of the above-mentioned four soil sample locations. The first sample of each composite will be collected approximately 1-foot above the known depth of contamination. The second sample will be collected at the known depth of contamination. The third sample will be collected approximately 1-foot below the known depth of contamination. In summary, three discrete grab samples will be collected at each of the above stated locations, at the depth intervals cited below:

Soil Sample Location	Known Depth of Contamination (bsg)	Sample Interval #1	Sample Interval #2	Sample Interval #3
PB-01	5.5'	4'-5' bsg	5'-6' bsg	6'-7' bsg
PB-01-34	8.5	7'-8' bsg	8'-9' bsg	9'-10' bsg
PB-01-32	6.5'	5'-6' bsg	6'-7' bsg	7'-8' bsg
PB-01-28	4.5'	3'-4' bsg	4'-5' bsg	5'-6' bsg

The three sample intervals will be mixed to obtain a composite sample at each of the above stated soil sample locations. The four sample locations will be submitted for TCLP analysis for VOCs and SVOCs.

If the TCLP analysis shows the contaminated soils to be hazardous then work at the site will cease until a hazardous waste delineation investigation can be completed. If the TCLP analysis shows the contaminated soils are non-hazardous, then site cleanup using MTTD technology will proceed as planned.

14.5 Remediation Verification

All contaminated excavated soil will be transported to the on-site MTTD for treatment. It is estimated that 3,330 cubic yards of soil will be treated by the MTTD. Based on an average density of 1.5 tons per cubic yard of soil the MTTD will treat approximately 5,000 tons of soil. The following sampling plan was developed to verify the MTTD has successfully remediated the contaminated soils.

Twelve is the minimum recommended number of samples to ensure statistically significant data. Based on the treatment of 5,000 tons of soil we will collect 1 sample per 400 tons of treated soils to verify cleanup goals have been met.

14.6 Confirmation of Site Clean-up

The following sampling plan has been developed to confirm that concentrations of chemicals of concern remaining in soils left on site are below the site-specific cleanup numbers. Samples will be collected from the excavation sidewalls and floor in the manner described below.

14.6.1 Determination of the Number of Samples

Samples will be collected from the excavation floor and sidewalls to confirm that the maximum remaining soil concentrations for each remaining chemical of concern is below the OEPA calculated multiple chemical adjusted direct contact standards. A grid system will be used to ensure an unbiased selection of sampling points will be collected from the excavation sidewalls and floors. To ensure a large enough sample set for statistical analysis a minimum of 12 samples or 25% of the total grid stations, whichever represents a larger sample set, should be collected.

The *Closure Plan Review Guidance Document for RCRA Facilities, September 2000,* recommends using a grid interval calculation based on contaminant chemical masses. This is difficult to apply at this site, as the holding pit was demolished in 1983 and the remaining dried material was transported off site. Only residuals of the compounds of concern remain at the site. Therefore, a grid interval based on the surface area of the excavation will be applied at this site.

~~When obtaining samples to verify that soil or wastes have been adequately remediated, it is important to insure that the analytical data provide an accurate representation of the entire area or volume being evaluated. The location and number of samples to be taken at a particular remediation site depends on many factors, including the target level of confidence, the variability over space and time of the media to be sampled, and the costs involved. The appropriate sample number can be estimated and the sampling locations can be chosen without bias using appropriate statistical methods.~~

~~Statistical sampling methods typically apply a sampling grid over the remediation area to determine the possible locations for samples to be collected. The grid size is generally determined by the area or volume of the soil to be remediated, modified by existing analytical and/or toxicological information available for the site.~~

~~A minimum of 12 samples or 25%, whichever is larger, of the total grid stations should be sampled and analyzed initially to allow a large enough data pool for statistical analysis. Extra samples are also collected and kept under proper chain of custody and storage procedures in case the statistical analysis indicates that more samples are needed.~~

~~14.6.1~~14.6.2 Sampling Grid Calculations

~~Sampling grids facilitate the unbiased selection of sampling points and accepted statistical tools are used for evaluating the resultant data. The following equations provide a simple basis to establish a grid system to facilitate unbiased selection of sampling points and sample coverage proportional to the area being verified.~~

For excavation, both the sidewalls and bottom areas would be included in the determination of the area size. The following equation is used to determine grid intervals for stationing over a medium sized site (11,000 to 130,000 square feet).

$$GI = (A/\pi)^{1/2} / 4$$

WHERE: A = area to be grid (square feet), including floor and sidewalls

GI = grid interval

= 3.14159

The combined surface area of the excavation floor and the sidewalls is expected to be approximately 20,000 square feet, which results in a calculated grid interval of 20 feet.

~~14.2~~14.6.3 Sampling of Grid

Sampling of grids may include all of the grid stations or a phased subset of the total stations. The subset of grid stations is created by assigning coordinates to all the nodes and randomly selecting nodes using a random number generator or a random number table.

Based on the grid interval calculated for this excavation, there will be approximately 35 grid nodes across the excavation floor, and 21 nodes across the excavation walls, for 56 total possible sample locations. ~~Based on the 25% guideline~~IN ACCORDANCE WITH SECTION 14.6.1, a minimum of 14 samples will need to be collected before statistical conditions can be met. This number of samples is suitable, considering that 51 borings were advanced previously to delineate the vertical and horizontal extent of contamination.

TWENTY (20) SOIL SAMPLES WILL BE COLLECTED FROM THE EXCAVATION FLOORS AND SIDEWALLS. FOURTEEN (14) OF THESE SAMPLES WILL BE ANALYZED FOR VOCS AND SVOCS AND THE REMAINING SIX (6) SAMPLES WILL BE HELD. IF SAMPLING ABNORMALITIES EXIST (PER SECTION 14.6.4, STATISTICAL VERIFICATION) THEN THE HELD SAMPLES WILL BE ANALYZED TO OBTAIN AN ADEQUATE REPRESENTATIVE POPULATION.

~~A minimum of 20 sidewall and floor samples is proposed to verify that the cleanup standards have been met in the excavation. The sample locations will be selected from randomized locations within a grid pattern distributed across the excavation floor, and at nodal distances along the excavation sidewalls.~~

14.6.4 STATISTICAL VERIFICATION

TO ENSURE A REPRESENTATIVE SET OF SAMPLES IS OBTAINED THE COEFFICIENT OF VARIATION TEST WILL BE APPLIED TO THE DISTRIBUTION OF EACH PARAMETER IN THE CONFIRMATION SAMPLES. IF THE INITIAL 14 SIDEWALL AND FLOOR CONFIRMATION SAMPLES ARE NOT STATISTICALLY VALID, THEN THE ADDITIONAL SIX SAMPLES WILL BE ANALYZED FOR THE PARAMETERS OF CONCERN.

14.7 Site Delineation Sampling Plan

To fully delineate the on-site contamination per the EPA's *Closure Plan Review Guidance Document for RCRA Facilities, September 2000*, 2 to 4 consecutive samples in the vertical direction and 2 samples in the horizontal direction must show that the concentrations of constituents are below their respective method detection limits.

The SVOC's chemicals of concern were delineated in both the horizontal and vertical directions, to non-detect limits, during the May 2001 field work (Figures 3A and 3B). The VOC chemicals of concern were delineated to below the laboratory reporting limits in both the horizontal and vertical directions. However, these reporting limits, in most cases, were higher than the method detection limits. Therefore, this sampling plan is designed to delineate the VOC contamination to non-detect values, using appropriate method detection limits, both vertically and horizontally.

Five soil sampling locations around the mound, as depicted in Figure 6, will be used to obtain horizontal delineation of VOCs. As two consecutive horizontal delineation samples must be obtained, a minimum of 10 Geoprobe™ borings will be advanced on the outer edges of the mound. As Figure 6 shows, we are proposing to use the soil samples collected during the installation of the monitoring wells as three of the horizontal delineation samples. The soil samples will be submitted to a fixed laboratory for GC analysis of VOCs using EPA method 8260B. These analytical methods will utilize detection limits appropriate for suspected clean samples. Horizontal site delineation soil sampling will continue until two consecutive samples are non-detect for VOCs.

Vertical delineation for VOCs will be obtained after soil excavation activities. Geoprobe™ borings will be advanced in a minimum of four locations throughout the site excavation. At each boring location a minimum of two consecutive vertical soil samples will be collected. The soil samples will be analyzed per the methods described above.

~~14.3~~14.8 Sample Handling and Analyses

New latex gloves will be worn by the sampling personnel and changed between sample collection events. Samples will be placed in pre-labeled containers provided by the laboratory. Each container will be specifically marked for the parameter to be analyzed. Sample preservatives will be pre-measured and placed into the sample containers by the laboratory. Each sample container will have a label to record the sample identification, sample depth, sample date and time, parameter(s) for analysis, person collecting the sample, and other pertinent data. Once filled, sample containers will be placed in a chilled insulated cooler until it is delivered to the laboratory for analysis. Sample information and handling history will be documented on laboratory supplied chain-of-custody forms.

Samples will be delivered to ~~the B.E.C. Laboratory in Toledo, Ohio,~~ A QUALIFIED LABORATORY for analysis of volatile organic compounds by GC/MS using EPA Method 8260B and semi-volatile organic compounds by EPA Method 8270. ~~VOC samples will be preserved in the field using EPA Method 5035 methanol preservation. B.E.C. is an Ohio VAP certified laboratory and their QA/QC documentation should be on file with the OEPA. Additional QA/QC Plan documentation can be provided to the Ohio EPA upon request.~~

15.0 DESCRIPTION OF REMOVAL EFFORTS AND TREATMENT PROCESSES

Information typically contained in this section is presented in detail in Section 7.0, "Removal of Hazardous Waste and Soil Remediation."

16.0 SPECIFICS FOR WASTE-IN-PLACE CLOSURES

No waste-in-place closure strategy is proposed for this unit. Soils impacted by releases from the former holding pit will remain in place only at concentrations below the site-specific risk based cleanup numbers for direct contact, the exposure pathway applicable to this site.

16.1 Final Cover System Construction and Testing Requirements

The backfill placed into the finished cleanup excavation will consist of overburden and treated soil demonstrated to be clean. Backfill materials will be compacted to ambient density or higher in 2-foot lifts. Final grade of the site will be designed to direct precipitation to the outer edges of the mound area to prevent excessive infiltration.

17.0 CERTIFICATION

Closure of this un-permitted hazardous waste management unit will be certified by Campbell Soup Company, and by an Ohio register professional engineer not directly employed by Campbell Soup Company or any of its subsidiaries. The Certification Report will be submitted within 60 days of completion of closure.

THE CERTIFICATION REPORT WILL INCLUDE, AT A MINIMUM, THE FOLLOWING SECTIONS, AS REQUIRED BY THE *CLOSURE PLAN REVIEW GUIDANCE FOR RCRA FACILITIES, SEPTEMBER 2000:*

- THE CERTIFICATION STATEMENT;
- REFERENCE TO THE APPROVED CLOSURE PLAN;
- THE VOLUME OF WASTE REMOVED OR CLOSED IN PLACE;
- ALL CORRESPONDENCE REGARDING CLOSURE ACTIVITY AFTER OHIO EPA APPROVAL;
- DETAILS OF SAMPLING AND ANALYSIS METHODS;
- LABORATORY RECORDS;
- A NARRATIVE DESCRIBING ALL ACTIVITIES DURING CLOSURE;
- DETAILS;
- POST-CLOSURE CLEAN-UP DOCUMENTATION; AND
- SIGNATURE OF OWNER/OPERATOR AND OF A QUALIFIED, INDEPENDENT, REGISTERED PROFESSIONAL ENGINEER.

The Certification Report will include the following language as required in accordance with OAC Rule 3745-50-42(D):

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for

submitting false information, including the possibility of fine and imprisonment for knowing violations."

18.0 STATUS OF FACILITY AFTER CLOSURE

Upon completion of closure of the former holding pit unit, the facility will continue operating as an industrial site involved with the manufacture of food products. The holding pit area and the surrounding mounded area will no longer be used for the deposition of any potential hazardous materials. Known inert materials, such as fill soil, cinders, and plant clippings may still be deposited in this area.

19.0 COST ESTIMATES FOR CLOSURE AND POST CLOSURE

The cost for closing the former holding pit and surrounding impacted soils is estimated to be between $500,000 and $600,000, as detailed in Table 4. Because the closure plan presented herein represents a permanent solution to residual contaminants resulting from the former holding pit, there will be no post closure activities required once closure has been accepted by the OEPA.

TABLES

TABLE 1
MOBILE LABORATORY RESULTS SUMMARY - VOCs*
CAMPBELL SOUP COMPANY FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01	PB-01	PB-01	PB-01	PB-15	PB-15	PB-01-23	PB-01-23	PB-01-23	PB-01-24	PB-01-25
Depth (feet)		(5-6')	(7-8')	(11-12')	(15-16')	(12-13')	(15-16')	(4-5')	(8-9')	(12-13')	(4-5')	(12-13')
Collection Date		25-May-01	25-May-01	25-May-01	25-May-01	25-May-01	25-May-01	22-May-01	22-May-01	22-May-01	22-May-01	22-May-01
Lab ID		00125-85	00125-86	00125-87	00125-88	00125-92	00125-93	00125-01	00125-02	00125-03	00125-04	00125-05
Matrix (units)	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*
ANALYTES												
Chloromethane	813	ND	ND	ND	ND	ND	ND	**970**	ND	ND	ND	ND
Bromomethane	84	ND	ND	ND	ND	ND	ND	**310**	ND	*100*	ND	ND
Trichlorofluoromenthane	7,956	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5,313	ND	*77*	ND	*49*	ND	ND	*20*	*31*	*22*	ND	*15*
trans-1,2-Dichloroethene	24,222	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	151	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	qualitative	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	152	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	238	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	498	ND	ND	*51*	*45*	*57*	*74*	ND	ND	ND	ND	*14*
Toluene	12,756	1200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,116	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	30,444	10000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	32,667	**56000**	ND	**126**	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	88,667	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	35,333	1500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	836	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	223	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	12,111	4100	ND	ND	ND	ND	ND	ND	ND	ND	ND	*6.9*
2-Chlorotoluene	24,222	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	qualitative	ND	ND	ND	ND	ND	ND	*6*	ND	ND	ND	ND
1,3,5-Trimethylbenzene	431	**12000**	ND	*37*	ND	*34*	ND	*8*	ND	ND	**1200**	*9.4*
tert-Butylbenzene	12,111	ND	ND	ND	ND	ND	ND	*6*	ND	ND	ND	ND
1,2,4-Trimethylbenzene	496	**41000**	*43*	*96*	ND	*64*	ND	*19*	*17*	ND	480	*19*
sec-Butylbenzene	12,111	3500	ND	ND	ND	ND	ND	*9*	ND	ND	ND	*6.9*
1,3-Dichlorobenzene	9,089	ND	ND	ND	ND	ND	ND	*9.5*	ND	ND	ND	*6.6*
p-Isopropyltoluene	12,733	ND	ND	ND	ND	ND	ND	*14*	ND	ND	ND	*9.4*
1,4-Dichlorobenzene	1,900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	19,178	ND	ND	ND	ND	ND	ND	*15*	ND	ND	ND	ND
n-Butylbenzene	12,111	ND	ND	*36*	ND	ND	ND	*16*	ND	ND	ND	*13*
1,2-Dibromo-3-chloropropane	69	ND	ND	ND	ND	ND	ND	*ND*	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2,333	ND	ND	ND	ND	ND	ND	*110*	ND	ND	ND	*26*
Hexachlorobutadiene	242	ND	ND	ND	ND	ND	ND	*100*	ND	ND	ND	ND
1,2,3-Trichlorobenzene	182	ND	ND	*34*	ND	ND	ND	*160*	*27*	ND	ND	*32*
Methyl 4,-2-Propanone (MIBK)	16,178	8400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	32,000	ND	510	*510*	*440*	*840*	*540*	*280*	*300*	*400*	ND	*390*
Butanone 2- (MEK)	146,667	ND	ND	ND	ND	ND	ND	*130*	*150*	*140*	ND	*200*

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. Italicized values were detected above the method detection limit but below the laberatory reporting limit.
3. ND-Compound was analyzed for but not detected.
4. B- Analyte found in the associated blank as well as the sample.
5. This table contains only compounds detected in at least one soil boring. For a complete list of compounds analyzed, please refer to the laboratory analysis reports.

TABLE 1
MOBILE LABORATORY RESULTS SUMMARY - VOCs*
CAMPBELL SOUP COMPANY FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-29	PB-01-29	PB-01-29	PB-01-31	PB-01-31	PB-01-31	PB-01-32	PB-01-32	PB-01-32	PB-01-32	PB-01-34
Depth (feet)		(6-7')	(12-13')	(14-15')	(4-5')	(8-9')	(10-11')	(6-7')	(8-9')	(12-13')	(14-15')	(8-9')
Collection Date		22-May-01	22-May-01	22-May-01	22-May-01	22-May-01	22-May-01	23-May-01	23-May-01	23-May-01	23-May-01	23-May-01
Lab ID		00125-11	00125-12	00125-13	00125-18	00125-19	00125-20	00125-23	00125-24	00125-22	00125-21	00125-25
Matrix (units)	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*
ANALYTES												
Chloromethane	813	ND	ND	ND	*180*	*150*	*127*	ND	ND	*92*	ND	ND
Bromomethane	84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromenthane	7,956	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5,313	*78*	*59*	*56*	*35*	*37*	*32*	ND	ND	*38*	ND	ND
trans-1,2-Dichloroethene	24,222	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	151	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	qualitative	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	152	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	238	ND	ND	ND	*15*	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	498	ND	*33*	ND	ND	ND	ND	ND	ND	*13*	ND	ND
Toluene	12,756	ND	ND	ND	*31*	ND	ND	5200	**1800**	ND	ND	ND
Chlorobenzene	1,116	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	30,444	1700	*13*	*16*	*52*	ND	ND	**66000**	24000	*19*	ND	ND
Total Xylenes	32,667	ND	ND	51	406	ND	ND	**297000**	**122000**	108	ND	ND
Styrene	88,667	ND	ND	ND	ND	ND	ND	2000	890	ND	ND	ND
Isopropylbenzene	35,333	ND	ND	ND	ND	ND	ND	10000	3900	ND	ND	ND
Bromobenzene	836	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	223	ND	ND	ND	*29*	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	40	ND	ND	ND	ND	ND	ND	**1100**	ND	ND	ND	ND
n-Propylbenzene	12,111	820	*16*	*12*	*30*	*9.2*	*11*	**32000**	**11000**	*21*	ND	ND
2-Chlorotoluene	24,222	39	*11*	*8.1*	*9.4*	ND	*8.9*	ND	ND	ND	ND	ND
4-Chlorotoluene	qualitative	31	*12*	*9.4*	*20*	*10*	*7*	ND	ND	*13*	ND	ND
1,3,5-Trimethylbenzene	431	8.8	*13*	*19*	*89*	*21*	*8.2*	**81000**	**28000**	*66*	ND	ND
tert-Butylbenzene	12,111	10	*8.1*	ND	*7.5*	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	496	19	*16*	*26*	*180*	*26*	*15*	**260000**	**95000**	260	270	440
sec-Butylbenzene	12,111	ND	*13*	*7.5*	*21*	*11*	*8.2*	**24000**	7900	*21*	ND	320
1,3-Dichlorobenzene	9,089	ND	*9.4*	*6.9*	*9.4*	*11*	*7.6*	ND	ND	ND	ND	ND
p-Isopropyltoluene	12,733	ND	*13*	*10*	*64*	*11*	*11*	ND	ND	*35*	ND	360
1,4-Dichlorobenzene	1,900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	19,178	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,111	620	*19*	*15*	*24*	*14*	*12*	**80000**	**25000**	*95*	ND	ND
1,2-Dibromo-3-chloropropane	69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2,333	ND	*14*	*16*	*18*	*17*	*16*	ND	ND	*14*	ND	ND
Hexachlorobutadiene	242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	182	ND	*18*	*21*	*18*	*21*	*18*	ND	ND	ND	ND	ND
Methyl 4,-2-Propanone (MIBK)	16,178	ND	ND	ND	*78*	ND	ND	7000	**3500**	ND	ND	ND
Acetone	32,000	240	*108*	*190*	*280*	*360*	*300*	ND	ND	*390*	ND	ND
Butanone 2- (MEK)	146,667	120	*77*	*130*	*99*	*190*	ND	ND	ND	*230*	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. Italicized values were detected above the method detection limit but below the laboratory reporting limit.
3. ND-Compound was analyzed for but not detected.
4. B- Analyte found in the associated blank as well as the sample.
5. This table contains only compounds detected in at least one soil boring. For a complete list of compounds analyzed, please refer to the laboratory analysis reports.

TABLE 1
MOBILE LABORATORY RESULTS SUMMARY - VOCs*
CAMPBELL SOUP COMPANY FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-34	PB-01-34	PB-01-35	PB-01-35	PB-01-36	PB-01-36	PB-01-36	PB-01-37	PB-01-37	PB-01-37	PB-01-38
Depth (feet)		(21-22')	(25-26')	(16-17')	(20-21')	(4-5')	(8-9')	(12-13')	(4-5')	(8-9')	(12-13')	(7-8')
Collection Date		23-May-01	23-May-01	25-May-01	25-May-01	23-May-01	23-May-01	23-May-01	23-May-01	23-May-01	23-May-01	23-May-01
Lab ID		00125-27	00125-26	00125-97	00125-96	00125-31	00125-32	00125-33	00125-34	00125-35	00125-36	00125-37
Matrix (units)	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*
ANALYTES												
Chloromethane	813	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromenthane	7,956	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5,313	*24*	*25*	ND	ND	ND	ND	700	ND	ND	ND	300
trans-1,2-Dichloroethene	24,222	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	151	ND	ND	ND	ND	ND	ND	56B	ND	ND	ND	52B
1,1-Dichloropropene	qualitative	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	152	ND	*13*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	238	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	498	ND	*26*	ND	*46*	ND	ND	ND	ND	ND	ND	ND
Toluene	12,756	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,116	ND	*22*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	30,444	ND	*40*	ND	ND	ND	ND	ND	ND	ND	ND	1400
Total Xylenes	32,667	ND	154	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	88,667	ND	*22*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	35,333	ND	*26*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	836	ND	*21*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	223	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	12,111	*6.1*	*32*	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	24,222	ND	*28*	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	qualitative	ND	*36*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	431	*7.7*	*46*	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	12,111	ND	*20*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	496	ND	*96*	ND	ND	ND	ND	ND	ND	ND	ND	220
sec-Butylbenzene	12,111	*6.6*	*33*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	9,089	ND	*34*	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	12,733	*7.2*	*41*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,900	ND	*33*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	19,178	ND	*34*	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,111	*12*	*57*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2,333	*12*	*64*	*41*	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	182	*15*	*64*	*36*	ND	ND	ND	ND	ND	ND	ND	ND
Methyl 4,-2-Propanone (MIBK)	16,178	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	32,000	*410*	*320*	*480*	*320*	ND	ND	ND	ND	ND	ND	ND
Butanone 2- (MEK)	146,667	*140*	*180*	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. Italicized values were detected above the method detection limit but below the laboratory reporting limit.
3. ND-Compound was analyzed for but not detected.
4. B- Analyte found in the associated blank as well as the sample.
5. This table contains only compounds detected in at least one soil boring. For a complete list of compounds analyzed, please refer to the laboratory analysis reports.

TABLE 1
MOBILE LABORATORY RESULTS SUMMARY - VOCs*
CAMPBELL SOUP COMPANY FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-42	PB-01-42	PB-01-42	PB-01-42	PB-01-43	PB-01-43	PB-01-43	PB-01-44	PB-01-44	PB-01-44	PB-01-45
Depth (feet)		(4-5')	(8-9')	(12-13')	(14-15')	(4-5')	(8-9')	(12-13')	(4-5')	(8-9')	(12-13')	(6-7')
Collection Date		24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01
Lab ID		00125-49	00125-50	00125-51	00125-52	00125-53	00125-54	00125-55	00125-56	00125-57	00125-58	00125-59
Matrix (units)	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*
ANALYTES												
Chloromethane	813	ND	ND	ND	ND	ND	ND	*190*	ND	*240*	ND	ND
Bromomethane	84	ND	ND	ND	ND	ND	ND	*140*	ND	*240*	*130*	ND
Trichlorofluoromenthane	7,956	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5,313	ND	ND	ND	ND	ND	ND	*17*	*49*	ND	*19*	ND
trans-1,2-Dichloroethene	24,222	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	151	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	qualitative	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	152	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	238	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	498	*16*	ND	ND	*16*	*19*	*19*	*17*	*17*	*12*	*19*	ND
Toluene	12,756	290	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,116	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	30,444	ND	900	ND	ND	*13*	ND	ND	ND	ND	ND	2400
Total Xylenes	32,667	ND	2340	ND	ND	61	ND	ND	ND	ND	ND	18900
Styrene	88,667	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	120
Isopropylbenzene	35,333	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	650
Bromobenzene	836	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	223	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	12,111	ND	ND	ND	*8*	*7*	ND	ND	ND	ND	ND	1700
2-Chlorotoluene	24,222	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	qualitative	ND	ND	ND	*7.5*	*6*	ND	*9.6*	ND	ND	ND	ND
1,3,5-Trimethylbenzene	431	ND	ND	ND	*10*	*11*	ND	*8.5*	ND	ND	ND	**9000**
tert-Butylbenzene	12,111	ND	ND	ND	ND	ND	ND	*6.8*	ND	ND	ND	ND
1,2,4-Trimethylbenzene	496	ND	ND	ND	*24*	*19*	ND	*42*	ND	*10*	ND	**21000**
sec-Butylbenzene	12,111	ND	ND	ND	*7*	*6*	ND	*8.4*	ND	ND	ND	1700
1,3-Dichlorobenzene	9,089	ND	ND	ND	*5.5*	*6*	ND	*14*	ND	ND	ND	ND
p-Isopropyltoluene	12,733	ND	ND	ND	*10*	*17*	*11*	*12*	ND	ND	ND	ND
1,4-Dichlorobenzene	1,900	ND	ND	ND	ND	ND	ND	*14*	ND	ND	ND	ND
1,2-Dichlorobenzene	19,178	ND	ND	ND	ND	ND	ND	*18*	ND	ND	ND	ND
n-Butylbenzene	12,111	ND	ND	ND	*13*	*10*	ND	*12*	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2,333	ND	ND	ND	*9.5*	*10*	ND	*47*	*12*	*12*	ND	ND
Hexachlorobutadiene	242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	182	ND	ND	ND	ND	ND	ND	*66*	*18*	*14*	ND	ND
Methyl 4,-2-Propanone (MIBK)	16,178	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	32,000	*240*	ND	*230*	*190*	*340*	*240*	*680*	*480*	*250*	*140*	ND
Butanone 2- (MEK)	146,667	*130*	ND	*110*	*94*	*92*	*71*	*230*	*190*	*160*	*190*	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. Italicized values were detected above the method detection limit but below the laboratory reporting limit.
3. ND-Compound was analyzed for but not detected.
4. B- Analyte found in the associated blank as well as the sample.
5. This table contains only compounds detected in at least one soil boring. For a complete list of compounds analyzed, please refer to the laboratory analysis reports.

TABLE 1
MOBILE LABORATORY RESULTS SUMMARY - VOCs*
CAMPBELL SOUP COMPANY FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-45	PB-01-45	PB-01-45	PB-01-46	PB-01-46	PB-01-46	PB-01-46	PB-01-47	PB-01-47	PB-01-47	PB-01-47
Depth (feet)		(10.5-11')	(12-13')	(14-15')	(4-5')	(10-11')	(17-18')	(20-21')	(4-5')	(8-9')	(11-12')	(15-16')
Collection Date		24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01
Lab ID		00125-60	00125-61	00125-62	00125-63	00125-64	00125-65	00125-66	00125-69	00125-70	00125-71	00125-72
Matrix (units)	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*
ANALYTES												
Chloromethane	813	ND	ND	ND	ND	ND	ND	ND	*160*	*97*	ND	ND
Bromomethane	84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromenthane	7,956	ND	ND	ND	ND	ND	ND	ND	*40*	*58*	ND	*57*
1,1-Dichloroethene	33	ND	ND	ND	ND	ND	ND	ND	ND	*16*	ND	ND
Methylene chloride	5,313	ND	ND	*73*	*54*	ND	ND	ND	*83*	*78*	*45*	*110*
trans-1,2-Dichloroethene	24,222	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	151	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	qualitative	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	152	ND	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	238	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	498	ND	ND	*15*	ND	ND	ND	ND	*32*	*24*	*40*	*36*
Toluene	12,756	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,116	ND	ND	ND	ND	ND	ND	ND	*8.2*	*13*	ND	ND
Ethylbenzene	30,444	21000	89	*12*	ND	ND	ND	ND	*13*	*16*	ND	*18*
Total Xylenes	32,667	**50890**	380	31	114	210	ND	ND	ND	ND	ND	39
Styrene	88,667	ND	ND	ND	ND	ND	ND	ND	ND	*15*	ND	*12*
Isopropylbenzene	35,333	5500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	836	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	223	ND	ND	ND	ND	ND	ND	ND	*30*	ND	ND	ND
1,2,3-Trichloropropane	40	ND	ND	ND	ND	ND	ND	ND	*35*	ND	ND	ND
n-Propylbenzene	12,111	**15000**	ND	*5.4*	ND	ND	ND	ND	*14*	*21*	ND	*22*
2-Chlorotoluene	24,222	ND	ND	ND	ND	ND	ND	ND	*14*	*19*	ND	*16*
4-Chlorotoluene	qualitative	ND	ND	ND	ND	ND	ND	ND	*15*	*20*	ND	*20*
1,3,5-Trimethylbenzene	431	**37000**	ND	*10*	*56*	ND	*36*	ND	*14*	*22*	ND	*25*
tert-Butylbenzene	12,111	1900	ND	ND	ND	ND	ND	ND	*9.8*	*6.4*	ND	*13*
1,2,4-Trimethylbenzene	496	**63000**	160	*38*	*96*	ND	*92*	290	*21*	*26*	ND	*49*
sec-Butylbenzene	12,111	**15000**	ND	*5.4*	ND	ND	ND	ND	*14*	*20*	ND	*23*
1,3-Dichlorobenzene	9,089	ND	ND	ND	ND	ND	ND	ND	*18*	*21*	ND	*19*
p-Isopropyltoluene	12,733	**20000**	ND	*9.2*	ND	ND	ND	ND	*19*	*26*	ND	*29*
1,4-Dichlorobenzene	1,900	ND	ND	ND	ND	ND	ND	ND	*18*	*26*	ND	*19*
1,2-Dichlorobenzene	19,178	ND	ND	ND	ND	ND	ND	ND	*14*	*16*	ND	*14*
n-Butylbenzene	12,111	**43000**	ND	*14*	ND	ND	*40*	ND	*23*	*30*	ND	*40*
1,2-Dibromo-3-chloropropane	69	ND	ND	ND	ND	ND	ND	ND	***69***	ND	ND	ND
1,2,4-Trichlorobenzene	2,333	ND	ND	ND	ND	ND	ND	ND	*38*	*43*	*70*	*30*
Hexachlorobutadiene	242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	182	ND	ND	ND	ND	ND	ND	ND	*40*	*40*	*93*	*27*
Methyl 4,-2-Propanone (MIBK)	16,178	ND	ND	ND	ND	ND	*71*	ND	ND	ND	ND	ND
Acetone	32,000	ND	ND	*290*	*160*	ND	*660*	ND	*370*	*320*	*440*	*300*
Butanone 2- (MEK)	146,667	670	ND	*90*	ND	ND	*180*	ND	*160*	*100*	ND	*93*

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. Italicized values were detected above the method detection limit but below the laboratory reporting limit.
3. ND-Compound was analyzed for but not detected.
4. B- Analyte found in the associated blank as well as the sample.
5. This table contains only compounds detected in at least one soil boring. For a complete list of compounds analyzed, please refer to the laboratory analysis reports.

TABLE 1
MOBILE LABORATORY RESULTS SUMMARY - VOCs*
CAMPBELL SOUP COMPANY FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-48	PB-01-48	PB-01-48	PB-01-49	PB-01-49	PB-01-49	PB-01-50	PB-01-50	PB-01-50	PB-01-50
Depth (feet)		(5-6')	(11-12')	(15-16')	(3-4')	(7-8')	(11-12')	(3-4')	(11-12')	(16-17')	(20-21')
Collection Date		24-May-01	24-May-01	24-May-01	25-May-01	25-May-01	25-May-01	25-May-01	25-May-01	25-May-01	25-May-01
Lab ID		00125-73	00125-74	00125-75	00125-76	00125-77	00125-78	00125-81	00125-82	00125-83	00125-84
Matrix (units)	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*	*soil (µg/Kg)*
ANALYTES											
Chloromethane	813	*240*	ND	ND	ND	ND	*170*	ND	ND	ND	ND
Bromomethane	84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromenthane	7,956	ND	*33*	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	33	***54***	***54***	ND	ND	ND	*18*	ND	ND	ND	ND
Methylene chloride	5,313	*71*	*110*	ND	ND	ND	ND	ND	*40*	ND	*54*
trans-1,2-Dichloroethene	24,222	*9.4*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	151	ND	ND	ND	ND	ND	ND	ND	*44*	ND	ND
1,1-Dichloropropene	qualitative	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	152	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	238	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	498	*39*	**18**	*46*	*16*	ND	ND	ND	ND	ND	ND
Toluene	12,756	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1,116	*16*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	30,444	*17*	ND	ND	ND	*14*	ND	ND	ND	ND	ND
Total Xylenes	32,667	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	88,667	*13*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	35,333	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	836	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	223	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	12,111	*21*	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	24,222	*21*	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	qualitative	*24*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	431	*19*	*8*	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	12,111	*11*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	496	*30*	*22*	ND	ND	*42*	ND	ND	ND	ND	ND
sec-Butylbenzene	12,111	*31*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	9,089	*29*	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	12,733	*120*	*9.8*	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,900	*29*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	19,178	*22*	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,111	*32*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2,333	*58*	ND	*63*	*50*	ND	ND	260	ND	ND	ND
Hexachlorobutadiene	242	ND	ND	ND	*55*	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	182	*57*	ND	*83*	*66*	ND	ND	ND	ND	ND	ND
Methyl 4,-2-Propanone (MIBK)	16,178	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	32,000	*360*	*330*	*380*	*340*	*290*	*420*	ND	*330*	*170*	*230*
Butanone 2- (MEK)	146,667	*120*	*90*	ND	*240*	*130*	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. Italicized values were detected above the method detection limit but below the laboratory reporting limit.
3. ND-Compound was analyzed for but not detected.
4. B- Analyte found in the associated blank as well as the sample.
5. This table contains only compounds detected in at least one soil boring. For a complete list of compounds analyzed, please refer to the laboratory analysis reports.

TABLE 1
MOBILE LABORATORY RESULTS SUMMARY - VOCs*
CAMPBELL SOUP COMPANY FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	PB-01-33	PB-01-34	PB-01-35	PB-01-45	PB-01-46
Depth (feet)	(11-16')	(11.5-16.5')	(11-16')	(11-16')	(11-16')
Collection Date	23-May-01	23-May-01	23-May-01	24-May-01	24-May-01
Lab ID	00125-29	00125-28	00125-30	00125-67	00125-68
Matrix (units)	*water (µg/L)*	*water (µg/L)*	*water (µg/L)*	*water (µg/L)*	*water (µg/L)*
ANALYTES					
Chloromethane	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND
Trichlorofluoromenthane	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND
1,1-Dichloropropene	ND	ND	ND	ND	ND
Benzene	6.8	8.8	1.5	3.4	1
1,2-Dichloroethane	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	1	ND
Chlorobenzene	ND	ND	ND	ND	ND
Ethylbenzene	70	170	11	160	19
Total Xylenes	43.9	71	9.2	271	42
Styrene	ND	1	ND	ND	ND
Isopropylbenzene	14	12	ND	17	2.6
Bromobenzene	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	ND	ND	ND	ND	ND
n-Propylbenzene	33	19	ND	32	ND
2-Chlorotoluene	ND	ND	ND	ND	ND
4-Chlorotoluene	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	4.1	6.6	2.1	58	9.1
tert-Butylbenzene	3.8	ND	ND	2.9	2.9
1,2,4-Trimethylbenzene	450	81	17	400	45
sec-Butylbenzene	23	6.8	ND	16	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND
p-Isopropyltoluene	ND	3.3	ND	21	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND
n-Butylbenzene	40	6.2	ND	43	ND
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND
Methyl 4,-2-Propanone (MIBK)	65	2.4	ND	ND	3.5
Acetone	ND	ND	ND	ND	ND
Butanone 2- (MEK)	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. Italicized values were detected above the method detection limit but below the laboratory reporting limit.
3. ND-Compound was analyzed for but not detected.
4. B- Analyte found in the associated blank as well as the sample.
5. This table contains only compounds detected in at least one soil boring. For a complete list of compounds analyzed, please refer to the laboratory analysis

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01	PB-01	PB-01	PB-01	PB-15	PB-15	PB-01-23
Depth (feet)		5-6	7-8	11-12	15-16	15-16	12-13	4-5
Collection Date		25-May-01	25-May-01	25-May-01	25-May-01	25-May-01	25-May-01	22-May-01
Lab ID		NAL00125-085	NAL00125-086	NAL00125-087	NAL00125-088	NAL00125-093	NAL00125-092	NAL00125-001
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES								
Naphthalene	1,213	**1700**	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	740	ND	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	ND	ND	ND	ND
Fluorene	33,778	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	ND	ND	ND	ND
Anthracene	5,670	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	36,667	ND	ND	ND	ND	ND	ND	ND
Pyrene	33,333	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	ND	ND	ND
Chrysene	7,180	ND	ND	ND	ND	ND	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	ND	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-23	PB-01-23	PB-01-24	PB-01-25	PB-01-25	PB-01-25	PB-01-25
Depth (feet)		8-9	12-13	4-5	12-13	14-15	15-16	18-19
Collection Date		22-May-01	22-May-01	22-May-01	22-May-01	25-May-01	22-May-01	25-May-01
Lab ID		NAL00125-002	NAL00125-003	NAL00125-004	NAL00125-005	NAL00125-094	NAL00125-006	NAL00125-095
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES								
Naphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	ND	ND	ND	ND
Fluorene	33,778	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	ND	ND	ND	ND
Anthracene	5,670	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	36,667	ND	ND	ND	ND	ND	ND	ND
Pyrene	33,333	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	ND	ND	ND
Chrysene	7,180	ND	ND	ND	ND	ND	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	ND	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND

Notes:

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2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-27	PB-01-27	PB-01-27	PB-01-27	PB-01-28	PB-01-28	PB-01-28
Depth (feet)		4-5	7-8	13-14	15-16	4-5	7-8	12-13
Collection Date		22-May-01	22-May-01	22-May-01	22-May-01	22-May-01	22-May-01	22-May-01
Lab ID		NAL00125-007	NAL00125-008	NAL00125-009	NAL00125-010	NAL00125-014	NAL00125-015	NAL00125-017
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES								
Naphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	ND	ND	ND	ND
Fluorene	33,778	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	ND	2900	ND	ND
Anthracene	5,670	ND	ND	ND	ND	1100	ND	ND
Fluoranthene	36,667	ND	ND	ND	ND	3300	ND	ND
Pyrene	33,333	ND	ND	ND	ND	2500	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	**1300**	ND	ND
Chrysene	7,180	ND	ND	ND	ND	1400	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	**1200**	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	1300	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	**1100**	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-28	PB-01-29	PB-01-29	PB-01-29	PB-01-31	PB-01-31	PB-01-31
Depth (feet)		15-16	6-7	12-13	14-15	4-5	8-9	10-11
Collection Date		22-May-01	22-May-01	22-May-01	22-May-01	22-May-01	22-May-01	22-May-01
Lab ID		NAL00125-016	NAL00125-011	NAL00125-012	NAL00125-013	NAL00125-018	NAL00125-019	NAL00125-020
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES								
Naphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	ND	ND	ND	ND
Fluorene	33,778	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	ND	570	ND	ND
Anthracene	5,670	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	36,667	ND	ND	ND	ND	940	ND	ND
Pyrene	33,333	ND	ND	ND	ND	700	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	ND	ND	ND
Chrysene	7,180	ND	ND	ND	ND	420	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	ND	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-32	PB-01-32	PB-01-32	PB-01-32	PB-01-34	PB-01-34	PB-01-34
Depth (feet)		6-7	8-9	12-13	14-15	8-9	21-22	25-26
Collection Date		23-May-01	23-May-01	23-May-01	23-May-01	23-May-01	23-May-01	23-May-01
Lab ID		NAL00125-023	NAL00125-024	NAL00125-022	NAL00125-021	NAL00125-025	NAL00125-027	NAL00125-026
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES								
Naphthalene	1,213	**34000**	**62000**	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	**5800**	**8600**	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	420	ND	ND	9200	ND	ND
Fluorene	33,778	ND	550	ND	ND	7600	ND	ND
Phenanthrene	158,000	ND	2200	ND	ND	41000	ND	ND
Anthracene	5,670	ND	520	ND	ND	**15000**	ND	ND
Fluoranthene	36,667	ND	950	ND	ND	**39000**	ND	ND
Pyrene	33,333	ND	920	ND	ND	33000	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	**16000**	ND	ND
Chrysene	7,180	ND	ND	ND	ND	**18000**	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	**14000**	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	**17000**	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	**14000**	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-35	PB-01-35	PB-01-36	PB-01-36	PB-01-36	PB-01-37	PB-01-37
Depth (feet)		16-17	20-21	4-5	8-9	12-13	4-5	8-9
Collection Date		25-May-01	25-May-01	23-May-01	23-May-01	23-May-01	23-May-01	23-May-01
Lab ID		NAL00125-097	NAL00125-096	NAL00125-031	NAL00125-032	NAL00125-033	NAL00125-034	NAL00125-035
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES								
Naphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	ND	ND	ND	ND
Fluorene	33,778	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	ND	ND	ND	ND
Anthracene	5,670	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	36,667	ND	ND	ND	ND	ND	ND	ND
Pyrene	33,333	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	ND	ND	ND
Chrysene	7,180	ND	ND	ND	ND	ND	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	ND	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-37	PB-01-38	PB-01-38	PB-01-38	PB-01-39	PB-01-39	PB-01-39
Depth (feet)		12-13	7-8	11-12	13-14	4-5	7-8	12-13
Collection Date		23-May-01	23-May-01	23-May-01	23-May-01	23-May-01	23-May-01	23-May-01
Lab ID		NAL00125-036	NAL00125-037	NAL00125-038	NAL00125-039	NAL00125-040	NAL00125-041	NAL00125-042
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES								
Naphthalene	1,213	ND	700	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	ND	ND	ND	ND
Fluorene	33,778	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	ND	ND	ND	ND
Anthracene	5,670	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	36,667	ND	ND	ND	ND	ND	ND	ND
Pyrene	33,333	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	ND	ND	ND
Chrysene	7,180	ND	ND	ND	ND	ND	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	ND	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration renge of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-40	PB-01-40	PB-01-40	PB-01-41	PB-01-41	PB-01-41	PB-01-42
Depth (feet)		4-5	8-9	12-13	4-5	8-9	12-13	4-5
Collection Date		24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01
Lab ID		NAL00125-043	NAL00125-044	NAL00125-045	NAL00125-046	NAL00125-047	NAL00125-048	NAL00125-049
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES								
Naphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	410	ND	ND	ND
Fluorene	33,778	ND	ND	ND	480	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	3400	ND	ND	860
Anthracene	5,670	ND	ND	ND	1300	ND	ND	350
Fluoranthene	36,667	ND	ND	ND	3600	ND	ND	1500
Pyrene	33,333	ND	ND	ND	2800	ND	ND	1100
Benzo (a) Anthracene	289	ND	ND	ND	**1500**	ND	ND	**600**
Chrysene	7,180	ND	ND	ND	1600	ND	ND	680
Benzo (b)Fluoranthene	288	ND	ND	ND	**1200**	ND	ND	**470**
Benzo (k) Fluoranthene	2,906	ND	ND	ND	1500	ND	ND	470
Benzo (a) Pyrene	29	ND	ND	ND	**1200**	ND	ND	**450**
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	420	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	**470**	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-42	PB-01-42	PB-01-42	PB-01-43	PB-01-43	PB-01-43	PB-01-44
Depth (feet)		8-9	12-13	14-15	4-5	8-9	12-13	4-5
Collection Date		24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01
Lab ID		NAL00125-050	NAL00125-051	NAL00125-052	NAL00125-053	NAL00125-054	NAL00125-055	NAL00125-056
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES								
Naphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	ND	ND	ND	ND
Fluorene	33,778	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	ND	580	ND	ND
Anthracene	5,670	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	36,667	ND	ND	ND	ND	1000	ND	ND
Pyrene	33,333	ND	ND	ND	ND	780	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	**420**	ND	ND
Chrysene	7,180	ND	ND	ND	ND	540	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	ND	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-44	PB-01-44	PB-01-45	PB-01-45	PB-01-45	PB-01-45	PB-01-46
Depth (feet)		8-9	12-13	6-7	10.5-11	12-13	14-15	4-5
Collection Date		24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01
Lab ID		NAL00125-057	NAL00125-058	NAL00125-059	NAL00125-060	NAL00125-061	NAL00125-062	NAL00125-063
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES								
Naphthalene	1,213	ND	ND	**3400**	**21000 E**	620 C	ND	ND
2-Methylnaphthalene	1,213	ND	ND	1100	**5000**	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	ND	ND	ND	ND
Fluorene	33,778	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	ND	ND	ND	ND
Anthracene	5,670	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	36,667	ND	ND	ND	ND	ND	ND	ND
Pyrene	33,333	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	ND	ND	ND
Chrysene	7,180	ND	ND	ND	ND	ND	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	ND	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-46	PB-01-46	PB-01-46	PB-01-47	PB-01-47	PB-01-47	PB-01-48	PB-01-48
Depth (feet)		10-11	17-18	20-21	4-5	8-9	11-12	5-6	11-12
Collection Date		24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	24-May-01	25-May-01	25-May-01
Lab ID		NAL00125-064	NAL00125-065	NAL00125-066	NAL00125-069	NAL00125-070	NAL00125-071	NAL00125-073	NAL00125-074
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES									
Naphthalene	1,213	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	33,778	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	5,670	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	36,667	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	33,333	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	7,180	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	Direct Contact Soil Standard, Multiple Chemical Adjusted	PB-01-48	PB-01-49	PB-01-49	PB-01-49	PB-01-50	PB-01-50	PB-01-50	PB-01-50
Depth (feet)		15-16	3-4	7-8	11-12	3-4	11-12	16-17	20-21
Collection Date		24-May-01	24-May-01	24-May-01	24-May-01	25-May-01	25-May-01	25-May-01	25-May-01
Lab ID		NAL00125-075	NAL00125-076	NAL00125-077	NAL00125-078	NAL00125-081	NAL00125-082	NAL00125-083	NAL00125-084
Matrix	*(µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*	*soil (µg/kg)*
ANALYTES									
Naphthalene	1,213	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1,213	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	48,667	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	33,778	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	158,000	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	5,670	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	36,667	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	33,333	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Anthracene	289	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	7,180	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (b)Fluoranthene	288	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (k) Fluoranthene	2,906	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (a) Pyrene	29	ND	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) Pyrene	291	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	150	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 2
MOBILE LABORATORY RESULTS SUMMARY - SVOCs
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO
MAY 2001

Soil Boring	PB-01-33	PB-01-34	PB-01-35	PB-01-45	PB-01-46
Depth (feet)	11-16	11.5-16.5	11-16	11-16	11-16
Collection Date	23-May-01	23-May-01	23-May-01	24-May-01	24-May-01
Lab ID	NAL00125-029	NAL00125-028	NAL00125-030	NAL00125-067	NAL00125-068
Matrix	*water (µg/l)*	*water (µg/l)*	*water (µg/l)*	*water (µg/L)*	*water (µg/L)*
ANALYTES					
Naphthalene	53 E	7.7	ND	76 E	4.0
2-Methylnaphthalene	ND	ND	ND	13	ND
Acenaphthene	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND
Benzo (a) Anthracene	ND	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND	ND
Benzo (b)Fluoranthene	ND	ND	ND	ND	ND
Benzo (k) Fluoranthene	ND	ND	ND	ND	ND
Benzo (a) Pyrene	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) Pyrene	ND	ND	ND	ND	ND
Benzo (g,h,i) Perylene	ND	ND	ND	ND	ND

Notes:

1. Bolded concentrations are above the Direct Contact Soil Standard, Multiple Chemical Adjusted values.
2. ND-Compound was analyzed for but not detected.
3. E- Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

Attachment A

Chemical of Concern Identified at the Site	Direct Contact Soil Standard, Multiple Chemical Adjusted (ug/kg)	Direct Contact Soil Standard, Multiple Chemical Adjusted (mg/Kg)	Basis	Non-Cancer GCN	Cancer GCN	SAT	MCA NC	MCA CA
Chloromethane (methyl chloride)	813	0.81	nc	3.66E+01	na	1.09E+03	8.13E-01	na
Bromomethane	84	0.08	nc	3.77E+00	na	3.07E+03	8.38E-02	na
Methylene chloride	5,313	5.31	ca	1.63E+03	8.50E+01	2.28E+03	3.62E+01	5.31E+0
Chloroform	151	0.15	ca	4.16E+01	2.41E+00	2.53E+03	9.24E-01	1.51E-0
Benzene	152	0.15	nc	6.85E+00	6.87E+00	9.58E+02	1.52E-01	4.29E-0
Trichloroethene	498	0.50	nc	2.24E+01	2.70E+01	9.24E+02	4.98E-01	1.69E+0
Toluene	12,756	12.76	nc	5.74E+02	na	8.80E+02	1.28E+01	na
Ethylbenzene	30,444	30.44	nc	1.37E+03	na	2.25E+02	3.04E+01	na
Total Xylenes	32,667	32.67	nc	1.47E+03	na	3.16E+02	3.27E+01	na
Styrene	88,667	88.67	nc	3.99E+03	na	6.83E+02	8.87E+01	na
Isopropylbenzene (cumene)	35,333	35.33	nc	1.59E+03	na	8.55E+02	3.53E+01	na
1,2,3-Trichloropropane	40	0.04	ca	3.27E+02	6.33E-01	9.88E+02	7.27E+00	3.96E-0
n-Propylbenzene	12,111	12.11	nc	5.45E+02	na	7.20E+01	1.21E+01	na
1,3,5-Trimethylbenzene	431	0.43	nc	1.94E+01	na	1.99E+02	4.31E-01	na
tert-Butylbenzene	12,111	12.11	nc	5.45E+02	na	3.88E+02	1.21E+01	na
1,2,4-Trimethylbenzene	496	0.50	nc	2.23E+01	na	2.55E+02	4.96E-01	na
sec-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
p-Isopropyltoluene	12,733	12.73	nc	5.73E+02	na	5.73E+02	1.27E+01	na
n-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
1,2,4-Trichlorobenzene	2,333	2.33	nc	1.05E+02	na	3.02E+03	2.33E+00	na
Naphthalene	1,213	1.21	nc	5.46E+01	na	2.43E+02	1.21E+00	na
2-Methylnaphthalene	1,213	1.21	nc	5.46E+01	na	1.13E+04	1.21E+00	na
Methyl-4-2-Propanone (MIBK)	16,178	16.18	nc	7.28E+02	na	1.72E+04	1.62E+01	na
Butanone-2- (MEK)	146,667	146.67	nc	6.60E+03	na	3.41E+04	1.47E+02	na
Acenaphthene	48,667	48.67	nc	2.19E+03	na	1.08E+02	4.87E+01	na
Fluorene	33,778	33.78	nc	1.52E+03	na	9.03E+01	3.38E+01	na
Phenanthrene	158,000	158.00	sat	1.21E+04	na	1.58E+02	2.69E+02	na
Anthracene	5,670	5.67	sat	1.21E+04	na	5.67E+00	2.69E+02	na
Fluoranthene	36,667	36.67	nc	1.65E+03	na	na	3.67E+01	na
Pyrene	33,333	33.33	nc	1.50E+03	na	9.96E+01	3.33E+01	na
Benzo(a)Anthracene	289	0.29	ca	na	4.63E+00	na	na	2.89E-0
Chrysene	7,180	7.18	sat	na	4.57E+02	7.18E+00	na	2.86E+0
Benzo(b)Fluoranthene	288	0.29	ca	na	4.60E+00	na	na	2.88E-0
Benzo(k)Fluoranthene	2,906	2.91	ca	na	4.65E+01	na	na	2.91E+0
Benzo(a)Pyrene	29	0.03	ca	na	4.65E-01	na	na	2.91E-0
Indeno(1,2,3-cd)Pyrene	291	0.29	ca	na	4.65E+00	na	na	2.91E-0
Benzo(g,h,i)Perylene	150	0.15	sat	1.50E+03	na	1.50E-01	3.33E+01	na
Trichlorofluoromethane	7,956	7.96	nc	3.58E+02	na	3.91E+04	7.96E+00	na
1,1-Dichloroethene	33	0.03	ca	1.97E+01	5.21E-01	1.55E+03	4.38E-01	3.26E-0
trans-1,2-Dichloroethene	1,382	1.38	nc	6.22E+01	na	3.05E+03	1.38E+00	na
1,1-Dichloropropene	qualitative	qualitative		na	na		na	na
1,2-Dichloroethane	238	0.24	nc	1.07E+01	2.82E+01	1.81E+03	2.38E-01	1.76E+0
Chlorobenzene	1,116	1.12	nc	5.02E+01	na	6.95E+02	1.12E+00	na
Bromobenzene	836	0.84	nc	3.76E+01	na	7.53E+02	8.36E-01	na
1,1,2,2-Tetrachloroethane	223	0.22	ca	na	3.56E+00	1.71E+03	na	2.23E-0
2-Chlorotoluene	24,222	24.22	nc	1.09E+03	na	1.42E+03	2.42E+01	na
4-Chlorotoluene	qualitative	qualitative		na	na	3.44E+02	na	na
1,3-Dichlorobenzene	9,089	9.09	nc	4.09E+02	na	2.40E+02	9.09E+00	na
1,4-Dichlorobenzene	1,900	1.90	ca	3.37E+03	3.04E+01	na	7.49E+01	1.90E+0
1,2-Dichlorobenzene	19,178	19.18	nc	8.63E+02	na	3.73E+02	1.92E+01	na
1,2-Dibromo-3-chloropropane	69	0.07	nc	3.11E+00	na	2.07E+03	6.91E-02	na
Hexachlorobutadiene	242	0.24	nc	1.09E+01	5.68E+01	1.18E+05	2.42E-01	3.55E+0
1,2,3-Trichlorobenzene	182	0.18	nc	8.18E+00	na	1.24E+03	1.82E-01	na
Acetone	32,000	32.00	nc	1.44E+03	na	1.04E+05	3.20E+01	na

TABLE 3
DIRECT CONTACT SOIL STANDARD
MULTIPLE CHEMICAL ADJUSTED
CAMPBELL SOUP COMPANY
FORMER HOLDING PIT
NAPOLEON, OHIO

Chemical of Concern Identified at the Site	Direct Contact Soil Standard, Multiple Chemical Adjusted (µg/kg)	Direct Contact Soil Standard, Multiple Chemical Adjusted (mg/kg)	Basis	Non-Cancer GCN	Cancer GCN	SAT	MCA NC	MCA CA
Chloromethane (methyl chloride)	813	0.81	nc	3.66E+01	na	1.09E+03	8.13E-01	na
Bromomethane 74-83-9	84	0.08	nc	3.77E+00	na	3.07E+03	8.38E-02	na
Methylene chloride 75-09-2	5,313	5.31	ca	1.63E+03	8.50E+01	2.28E+03	3.62E+01	5.31E+00
Chloroform 67-66-3	151	0.15	ca	4.16E+01	2.41E+00	2.53E+03	9.24E-01	1.51E-01
Benzene 71-43-2	152	0.15	nc	6.85E+00	6.87E+00	9.58E+02	1.52E-01	4.29E-01
Trichloroethene	498	0.50	nc	2.24E+01	2.70E+01	9.24E+02	4.98E-01	1.69E+00
Toluene	12,756	12.76	nc	5.74E+02	na	8.80E+02	1.28E+01	na
Ethylbenzene	30,444	30.44	nc	1.37E+03	na	2.25E+02	3.04E+01	na
Total xylenes	32,667	32.67	nc	1.47E+03	na	3.16E+02	3.27E+01	na
Styrene	88,667	88.67	nc	3.99E+03	na	6.83E+02	8.87E+01	na
Isopropylbenzene (cumene)	35,333	35.33	nc	1.59E+03	na	8.55E+02	3.53E+01	na
1,2,3-Trichloropropane	40	0.04	ca	3.27E+02	6.33E-01	9.88E+02	7.27E+00	3.96E-02
n-Propylbenzene	12,111	12.11	nc	5.45E+02	na	7.20E+01	1.21E+01	na
1,3,5-Trimethylbenzene	431	0.43	nc	1.94E+01	na	1.99E+02	4.31E-01	na
tert-Butylbenzene	12,111	12.11	nc	5.45E+02	na	3.88E+02	1.21E+01	na
1,2,4-Trimethylbenzene	496	0.50	nc	2.23E+01	na	2.55E+02	4.96E-01	na
sec-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
p-Isopropyltoluene	12,733	12.73	nc	5.73E+02	na	5.73E+02	1.27E+01	na
n-Butylbenzene	12,111	12.11	nc	5.45E+02	na	2.36E+02	1.21E+01	na
1,2,4-Trichlorobenzene	2,333	2.33	nc	1.05E+02	na	3.02E+03	2.33E+00	na
Naphthalene	1,213	1.21	nc	5.46E+01	na	2.43E+02	1.21E+00	na
2-Methylnaphthalene	1,213	1.21	nc	5.46E+01	na	1.13E+04	1.21E+00	na
Methyl 4,-2-Propanone (MIBK)	16,178	16.18	nc	7.28E+02	na	1.72E+04	1.62E+01	na
Butanone 2- (MEK)	146,667	146.67	nc	6.60E+03	na	3.41E+04	1.47E+02	na
Acenaphthene	48,667	48.67	nc	2.19E+03	na	1.08E+02	4.87E+01	na
Fluorene	33,778	33.78	nc	1.52E+03	na	9.03E+01	3.38E+01	na
Phenanthrene	158,000	158.00	sat	1.21E+04	na	1.58E+02	2.69E+02	na
Anthracene	5,670	5.67	sat	1.21E+04	na	5.67E+00	2.69E+02	na
Fluoranthene	36,667	36.67	nc	1.65E+03	na	na	3.67E+01	na
Pyrene	33,333	33.33	nc	1.50E+03	na	9.96E+01	3.33E+01	na
Benzo (a) Anthracene	289	0.29	ca	na	4.63E+00	na	na	2.89E-01
Chrysene	7,180	7.18	sat	na	4.57E+02	7.18E+00	na	2.86E+01
Benzo (b)Fluoranthene	288	0.29	ca	na	4.60E+00	na	na	2.88E-01
Benzo (k) Fluoranthene	2,906	2.91	ca	na	4.65E+01	na	na	2.91E+00
Benzo (a) Pyrene	29	0.03	ca	na	4.65E-01	na	na	2.91E-02
Indeno (1,2,3-cd) Pyrene	291	0.29	ca	na	4.65E+00	na	na	2.91E-01
Benzo (g,h,i) Perylene	150	0.15	sat	1.50E+03	na	1.50E-01	3.33E+01	na
Trichlorofluoromethane	7,956	7.96	nc	3.58E+02	na	3.91E+04	7.96E+00	na
1,1-Dichloroethene	33	0.03	ca	1.97E+01	5.21E-01	1.55E+03	4.38E-01	3.26E-02
trans-1,2-Dichloroethene	24,222	24.22	nc	1.09E+03	na	3.05E+03	2.42E+01	na
1,1-Dichloropropene	qualitative	qualitative		na	na		na	na
1,2-Dichloroethane	238	0.24	nc	1.07E+01	2.82E+01	1.81E+03	2.38E-01	1.76E+00
Chlorobenzene	1,116	1.12	nc	5.02E+01	na	6.95E+02	1.12E+00	na
Bromobenzene	836	0.84	nc	3.76E+01	na	7.53E+02	8.36E-01	na
1,1,2,2-Tetrachloroethane	223	0.22	ca	na	3.56E+00	1.71E+03	na	2.23E-01
2-Chlorotoluene	24,222	24.22	nc	1.09E+03	na	1.42E+03	2.42E+01	na
4-Chlorotoluene	qualitative	qualitative		na	na	3.44E+02	na	na
1,3-Dichlorobenzene	9,089	9.09	nc	4.09E+02	na	2.40E+02	9.09E+00	na
1,4-Dichlorobenzene	1,900	1.90	ca	3.37E+03	3.04E+01	na	7.49E+01	1.90E+00
1,2-Dichlorobenzene	19,178	19.18	nc	8.63E+02	na	3.73E+02	1.92E+01	na
1,2-Dibromo-3-chloropropane	69	0.07	nc	3.11E+00	na	2.07E+03	6.91E-02	na
Hexachlorobutadiene	242	0.24	nc	1.09E+01	5.68E+01	1.18E+05	2.42E-01	3.55E+00
1,2,3-Trichlorobenzene	182	0.18	nc	8.18E+00	na	1.24E+03	1.82E-01	na
Acetone	32,000	32.00	nc	1.44E+03	na	1.04E+05	3.20E+01	na

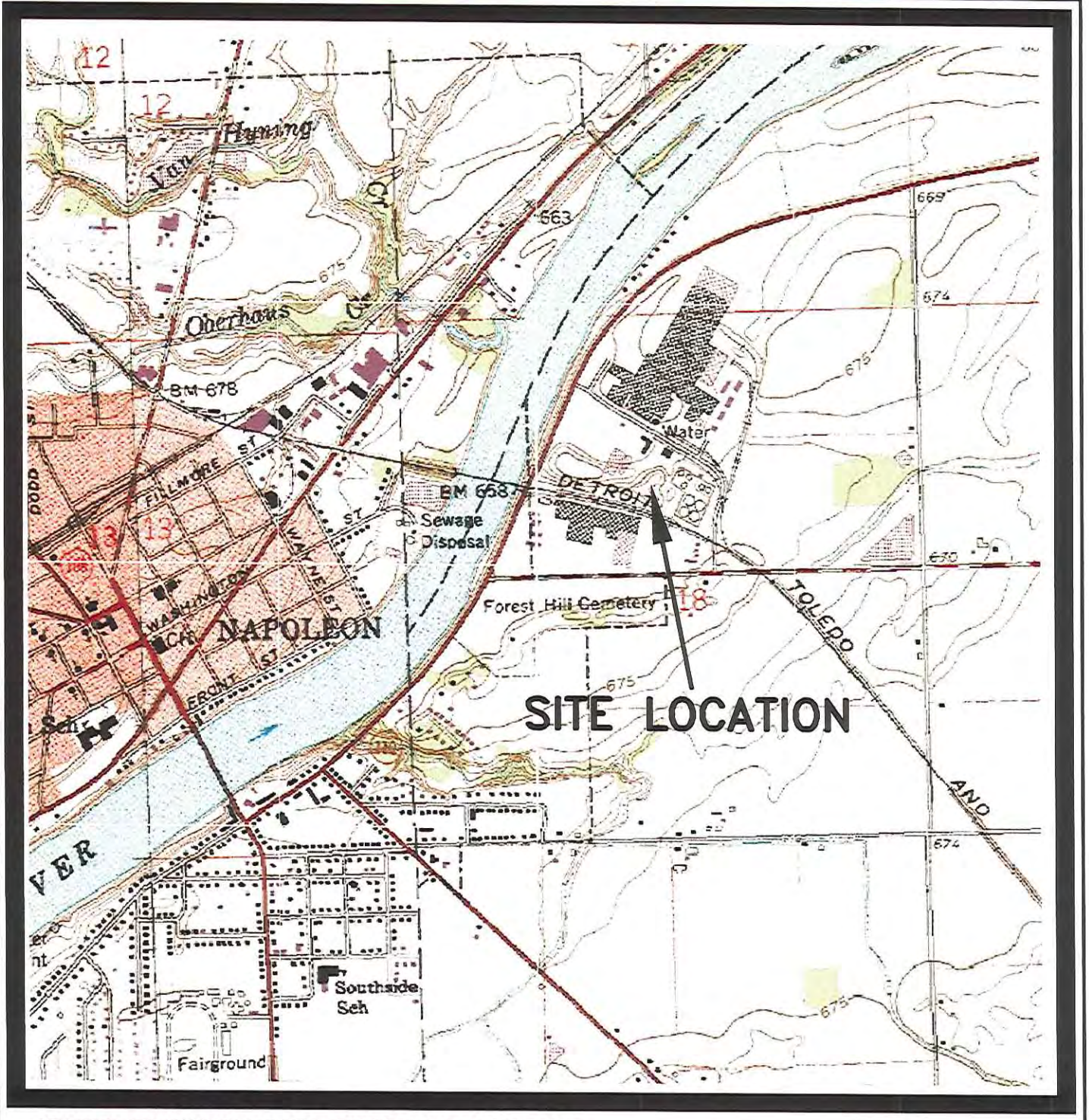
TABLE 4

COST ESTIMATE - ONSITE THERMAL TREATMENT
Campbell's Soup Company, Napoleon, Ohio

Cost Estimate Assumptions	
Excavation Area, sq.ft.	11,000
Volume of Clean Soil *(in situ)*, cu.yd.	1,630
Volume of Contaminated Soil *(in situ)*, cu.yd.	3,259
Volume of Clean Soil *(ex situ)*, cu.yd.	1,956
Volume of Contaminated Soil *(ex situ)*, cu.yd.	3,911
Mass of Clean Soil *(ex situ)*, tons	2,836
Mass of Contaminated Soil *(ex situ)*, tons	5,671
Treatment Time, days	57

Task	Work Elements	Unit	Unit Cost	Qty	Total Cost
Engineering Design	Prepare Plans and Specifications	lump sum	$20,000	1	$20,000
Health & Safety	Prepare Plan	lump sum	$5,000	1	$5,000
	Personal Protective Equipment	man-day	$100	57	$5,671
	Setup Air Monitoring	lump sum	$1,200	1	$1,200
	Conduct Air Monitoring (ambient)	day	$25	57	$1,418
Site Preparation	Survey	lump sum	$500	1	$500
	Clearing/Grubbing	sq.ft.	$2	11000	$22,000
	Electrical Service Panel and Feeder	lump sum	$1,500	1	$1,500
	Cooling/Quench Water Hookup	lump sum	$500	1	$500
	Exclusion Area Setup	lump sum	$2,500	1	$2,500
	Runoff Controls (Silt Fence)	lump sum	$1,250	1	$1,250
MLTD (per quotation)	Excavate Clean Soil	ton	$3.75	2836	$10,633
	Excavate Contaminated Soil	ton	$3.75	5671	$21,267
	Process (MLTD Plant & Operator, Loader w/certified scales & Operator, Propane)	ton	$41	5671	$232,516
	Backhoe, Dozer and Loader	lump sum	$2,000	1	$2,000
Sampling	Confirmation Sampling (1 per 20 cu.yd.)	each	$120	98	$11,733
	Baseline Sampling (1 per 50 tons)	each	$120	78	$9,387
	Treatment Sampling (1 per 50 tons)	each	$120	113	$13,611
	Off-gas Sampling (1 per day)	each	$200	57	$11,342
Replace Soils	Return Clean and Treated Soils	ton	$4	8507	$31,900
	Grade and Vegetate Cover	sq.ft.	$2	11000	$22,000
Demobilization	Demolish Runoff Controls	lump sum	$500	1	$500
	Dismantle Exclusion Area	lump sum	$1,200	1	$1,200
Construction	Provide Field Office (Trailer)	week	$250	9	$2,250
	Construction Management	manhour	$90	193	$17,408
	Construction Oversight	manhour	$65	567	$36,862
Reporting	Weekly Progress Reports	manhour	$65	113	$7,372
	Closure Report	manhour	$75	180	$13,500
	Subtotal Calculated Cost				*$507,020*
	Contingency Cost (10%)				*$50,702*
	Total Estimated Cost				*$557,722.00*

FIGURES

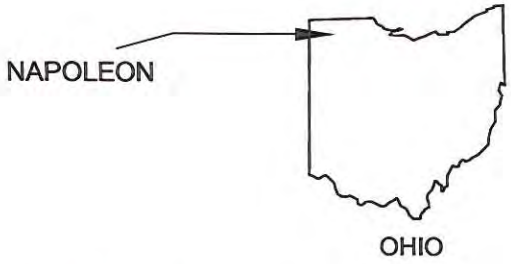


ADAPTED FROM USGS 7.5 MIN. SERIES QUADRANGLE MAP
NAPOLEON, OHIO



750 0 1500'

SCALE: 1" = 1500'



GeoTrans, Inc.
A TETRA TECH COMPANY

CHECKED: CAS

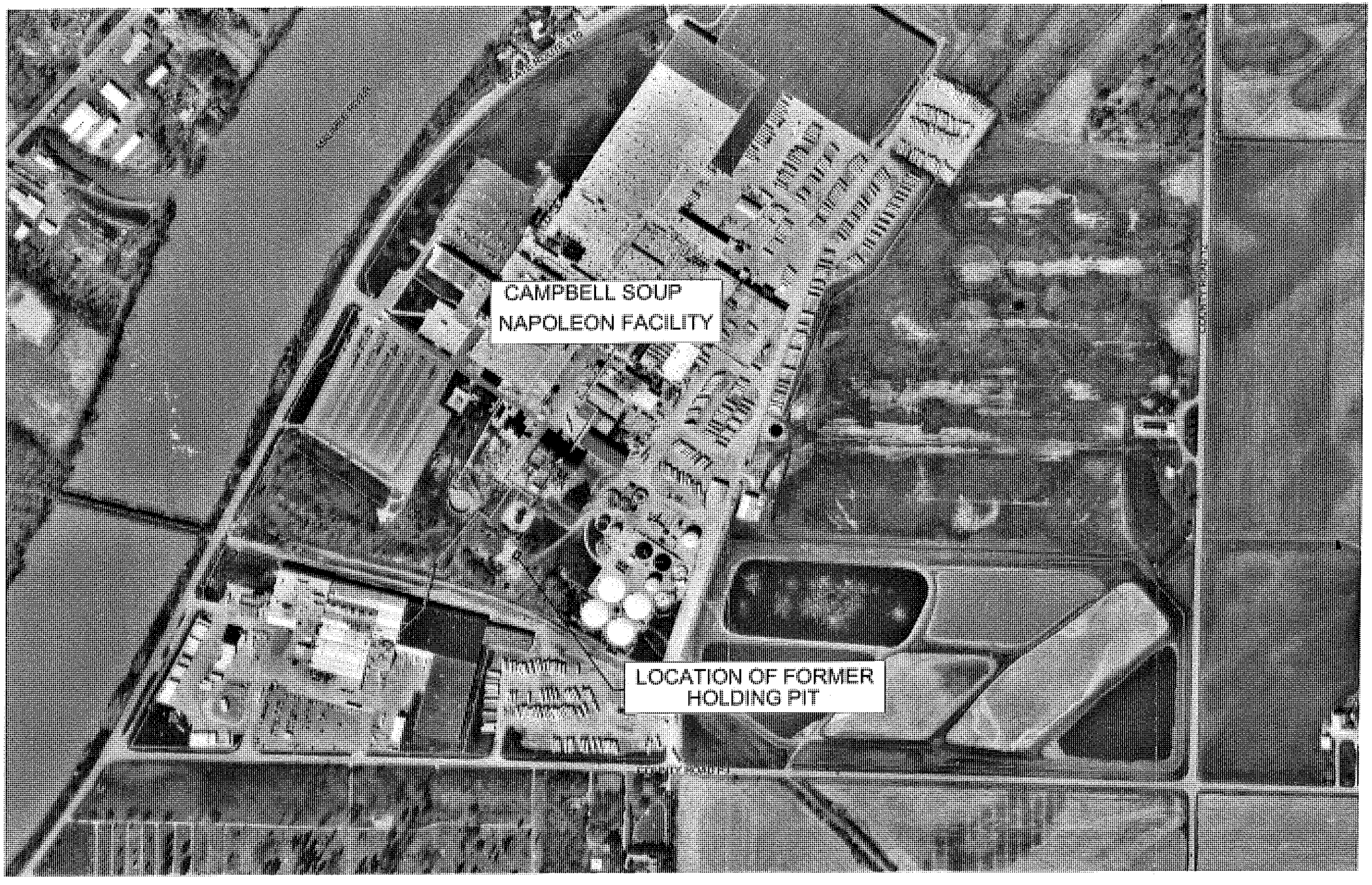
DATE: 10/23/01

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

SITE LOCATION MAP

FIGURE
1

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 10/23/01 LAB 1



GeoTrans, Inc.

40' 200' 0 400' 800'

SCALE: 1" = 400'

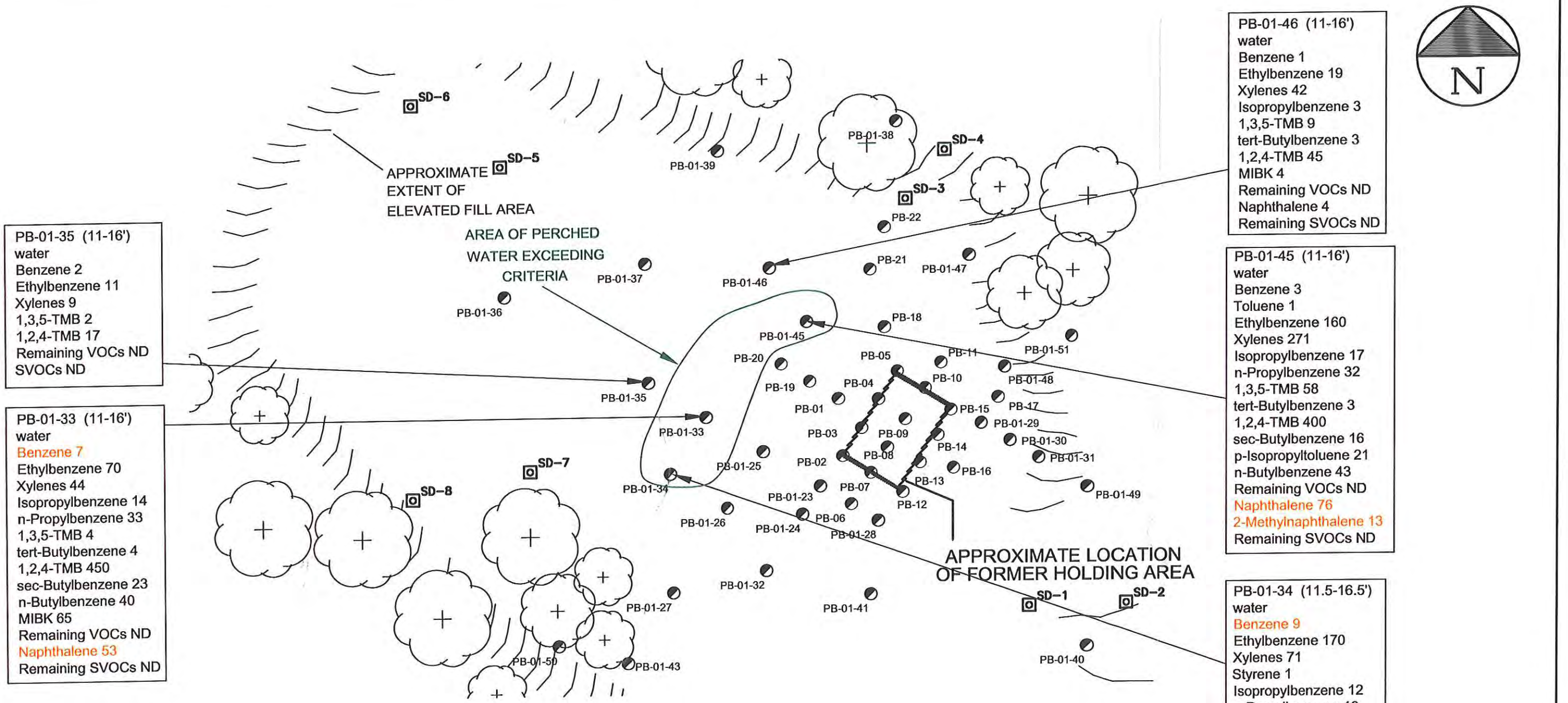
RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

NAPOLEON FACILITY
PLAN VIEW

FIGURE
2

drawn: CAS | date: 10/23/01

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 10/23/01 LAB 1



NOTES:

1. DATA ARE PRESENTED IN µG/L.
2. PRESENTED DATA IS FROM MAY 2001 SAMPLING EVENT.
3. RED TEXT INDICATES CONCENTRATIONS ARE ABOVE OHIO EPA RESIDENTIAL DIRECT CONTACT CRITERIA, ADJUSTED FOR MULTIPLE CHEMICALS.

LEGEND:

VOCs = VOLATILE ORGANIC COMPOUNDS
SVOCS = SEMIVOLATILE ORGANIC COMPOUNDS
TMB = TRIMETHYLBENZENE
MIBK = METHYL 4,-2-PROPANONE
MEK = BUTANONE 2

GeoTrans, Inc.
A TETRA TECH COMPANY

CHECKED: CAS
DATE: 10/23/01

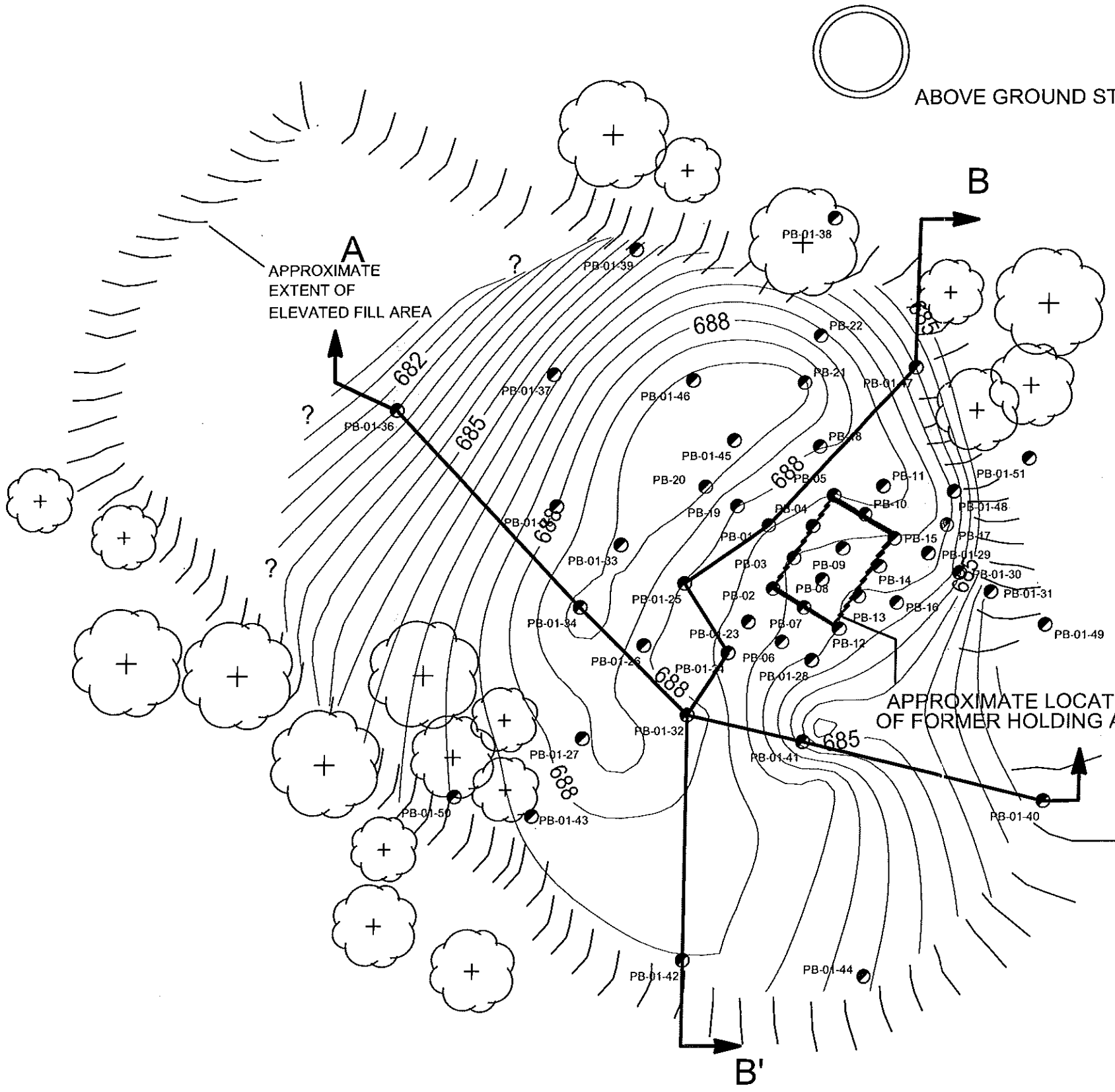
30' 15' 0 30' 60'
SCALE: 1" = 30'

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

AREA OF PERCHED WATER CONTAMINATION

FIGURE 3C

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 10/23/01 LAB 1



NOTES:

1. CONTOURS GENERATED IN SURFER USING KRIGING DEFAULT SETTINGS AND GROUND SURFACE ELEVATIONS MEASURED AT BORINGS COMPLETED IN MAY 2001.

LEGEND:

685 — GROUND SURFACE CONTOUR LINE
CONTOUR INTERVAL EQUALS 0.5-FOOT

A — A' CROSS SECTION ORIENTATION LINE

30' 15' 0 30' 60'

SCALE: 1" = 30'

GeoTrans, Inc. A TETRA TECH COMPANY

CHECKED: CAS

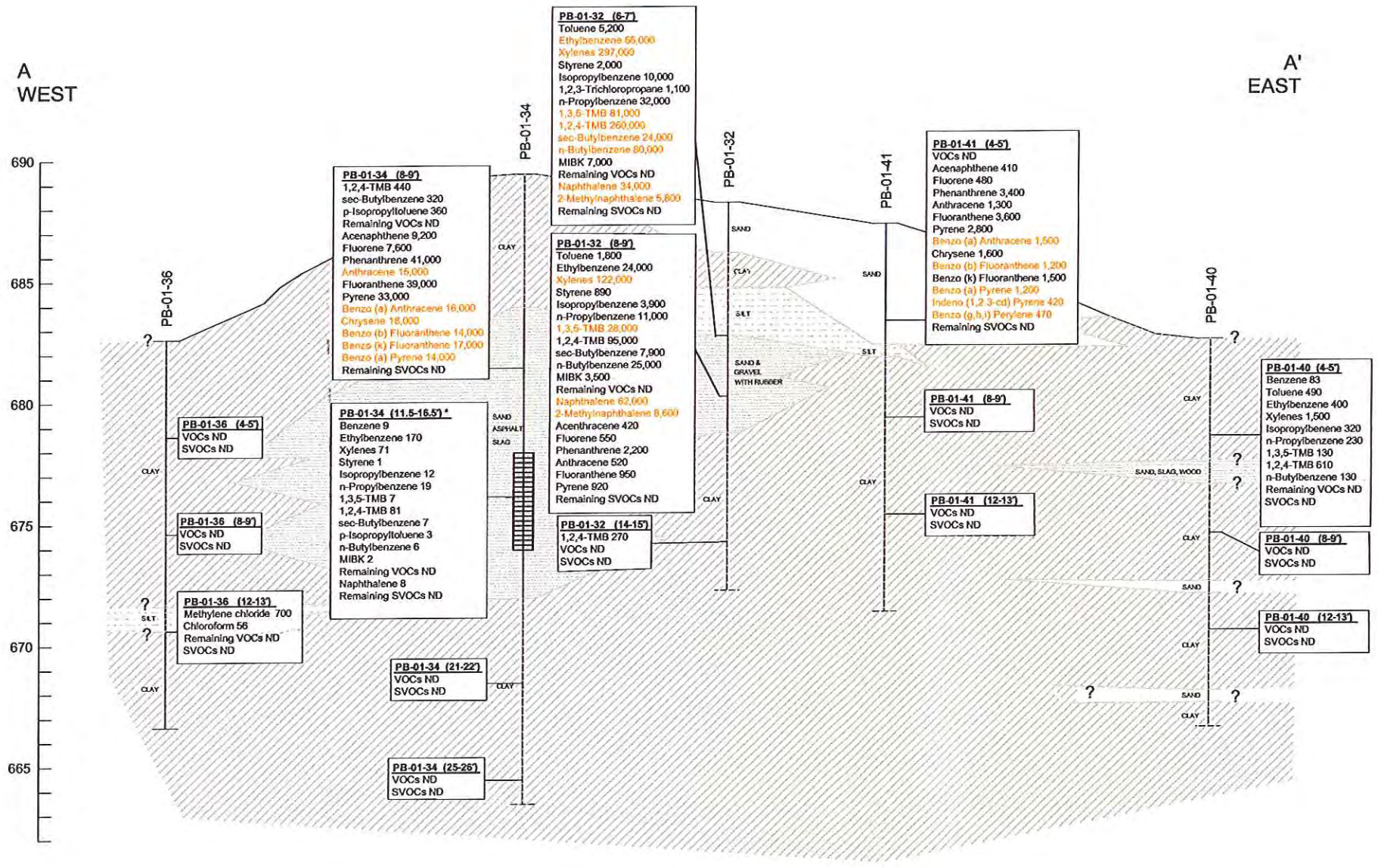
DATE: 10/23/01

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

CROSS SECTION ORIENTATION MAP

FIGURE 4A

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 10/23/01 LAB 1



NOTES:

1. DATA ARE PRESENTED IN µg/kg.
2. PRESENTED DATA IS FROM MAY 2001 SAMPLING EVENT.
3. RED TEXT INDICATES CONCENTRATIONS ARE ABOVE OHIO EPA RESIDENTIAL DIRECT CONTACT CRITERIA, ADJUSTED FOR MULTIPLE CHEMICALS.

* DENOTES GROUNDWATER SAMPLE (µg/L)

LEGEND:

- SAND
- CLAY
- SILT
- FILL: CONCRETE, SLAG, RUBBER, WOOD, ASPHALT
- GEOPROBE 4-FOOT SLOTTED SCREEN INTERVAL

GeoTrans, Inc. A TETRA TECH COMPANY

CHECKED: CAS | DATE: 10/23/01

30' 15' 0 30' 60'

SCALE: HORIZONTAL 1" = 30'

5 X VERTICAL EXAGGERATION

VERTICAL SCALE 1" = 6'

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

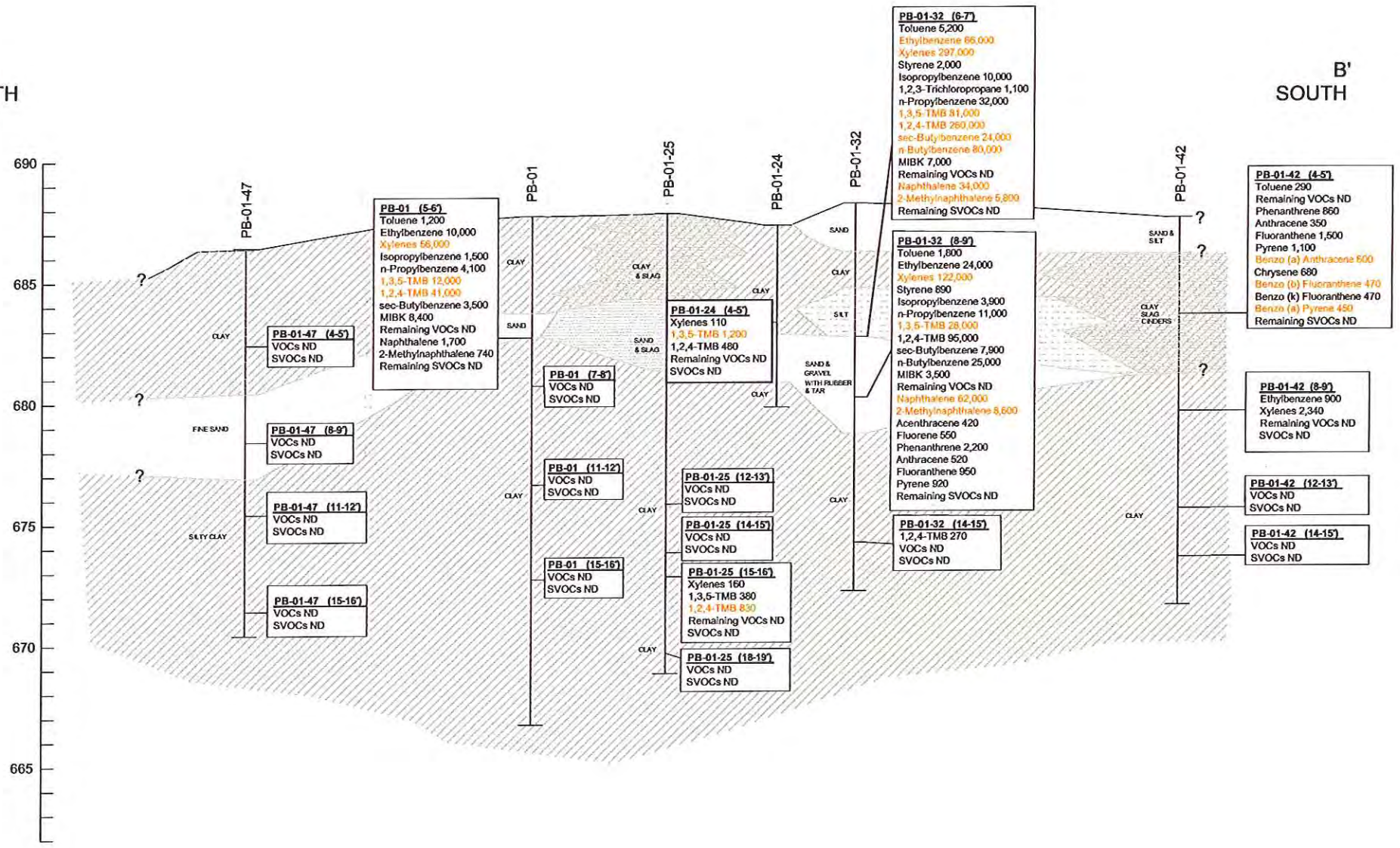
LITHOLOGIC CROSS SECTION A - A'

FIGURE 4B

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 10/23/01 LAB 1

B
NORTH

B'
SOUTH



NOTES:

1. DATA ARE PRESENTED IN µg/kg.
2. PRESENTED DATA IS FROM MAY 2001 SAMPLING EVENT.
3. RED TEXT INDICATES CONCENTRATIONS ARE ABOVE OHIO EPA RESIDENTIAL DIRECT CONTACT CRITERIA, ADJUSTED FOR MULTIPLE CHEMICALS.

LEGEND:

- SAND
- CLAY
- SILT
- FILL: CONCRETE, SLAG, RUBBER, WOOD, ASPHALT

GeoTrans, Inc. A TETRA TECH COMPANY

CHECKED: CAS

DATE: 10/23/01

30' 15' 0 30' 60'

SCALE: HORIZONTAL 1" = 30'

5 X VERTICAL EXAGGERATION

VERTICAL SCALE 1" = 6'

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

LITHOLOGIC CROSS SECTION
B - B'

FIGURE
4C

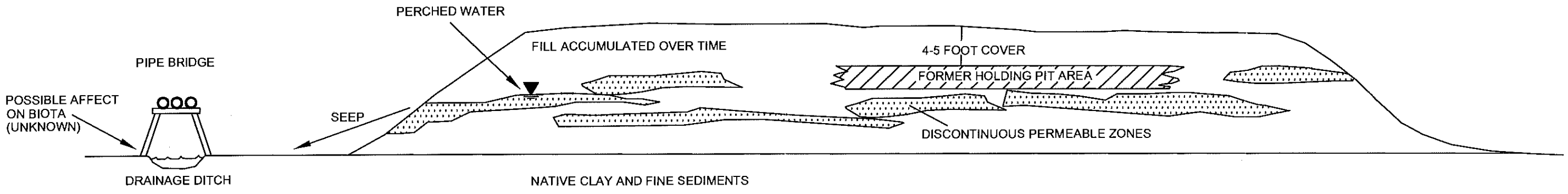
P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 10/23/01 LAB 1

POTENTIAL PATHWAYS

DIRECT CONTACT, SOIL = INGESTION, INHALATION, DERMAL (DURING EXCAVATING ACTIVITIES ONLY)
DIRECT CONTACT, WATER = DERMAL (DURING EXCAVATION ONLY)
ECOLOGICAL, WATER = IMPACTS VIA SEEPS

GROUNDWATER IN CARBONATE BEDROCK AT
100+ FEET - LEACHING IS NOT PATHWAY - NO WELL WITHIN 1-MILE.
NO BUILDING OR UNDERGROUND AREAS; THEREFORE,
NO VAPOR INTRUSION POTENTIAL.

CONTAMINANTS COVERED BY 5-FEET OF FILL.
NO VOLATILIZATION OR DIRECT CONTACT EXPOSURES
UNTIL EXCAVATED.



GeoTrans, Inc. A TETRA TECH COMPANY

CHECKED: CAS | DATE: 10/23/01

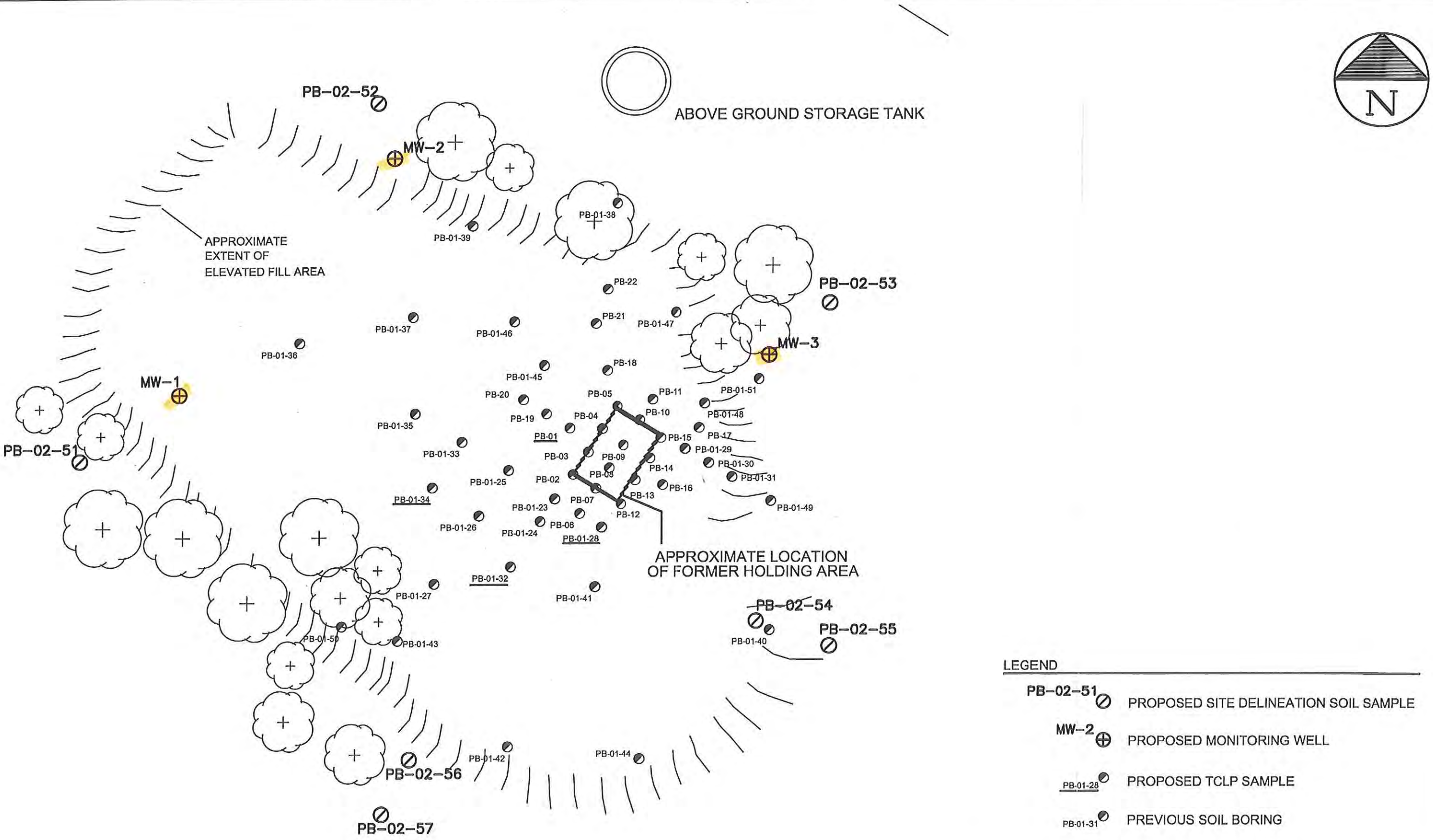
NOT TO SCALE

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

CONCEPTUAL MODEL

FIGURE
5

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 10/23/01 LAB 1



LEGEND

PB-02-51 ⊘	PROPOSED SITE DELINEATION SOIL SAMPLE
MW-2 ⊕	PROPOSED MONITORING WELL
PB-01-28 ⊘	PROPOSED TCLP SAMPLE
PB-01-31 ⊘	PREVIOUS SOIL BORING

GeoTrans, Inc.
A TETRA TECH COMPANY

30' 15' 0 30' 60'

SCALE: 1" = 30'

CHECKED: CAS

DATE: 05/23/02

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

PROPOSED LOCATIONS OF MONITORING WELLS & VOC SITE DELINEATION SAMPLES

FIGURE 6

P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG 05/22/02 TLY 1

APPENDICES

APPENDIX A

APPENDIX A

Laboratory Reports - VOCs

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0134

CLIENT	PHONE NO.
CAMPBELLS	
ADDRESS	SAMPLE
PROJECT NO. / PROJECT NAME	CLIENT CONTACT

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	SVOC	VOCs	SVOC SAMPLE RECIEVED	VOC				REMARKS
1	PB-01 23	5 22	9:0		X	Soil 4-5		X	X	22	24				01
2	PB-01 23	5 22	9:20		X	8-9				22	24				02
3	PB-01 23	5 22	9:40		X	12-13				22	24				03
4	PB-01 24	5 22	10:[illegible]		X	4-5				22	24				04
5															
6	PB-01 25	5 22	10:[illegible]		X	12-13				22	23				05
7	PB-01 25	5 22	10:45		X	15-16				22	24				06
8	PB-01-27	5 22	11:[illegible]		X	4-5				22	23				
9	PB-01 27		12:[illegible]		Y	7-8				22	23				
10	PB-01-27		1:10		Y	12-13-14				22	23				

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-4	Michael Kowalski	[signature]	5-2	10:20
2	6-10	Michael Kowalski	[signature]	5-2	11:0
3					
4					

REMARKS

SAMPLER'S SIGNATURE: Michael Kowalski

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0135

CLIENT	PHONE NO.
CAMPBELL'S SOUP COMPANY	
ADDRESS	SAMPLE
PROJECT NO. / PROJECT NAME	CLIENT CONTACT

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	VOCs	SVOCs		SVOC	VOCs (RECEIVED LAB)				REMARKS
1	PB-01-27	5-22	12:00		X	15-6 Soil	1	X	X		22	23				10
2	PB-01-29	5-22	14:50			6-7 Soil	1				22	23				11
3	PB-01-29	5-22	15:00			12-13 Soil	1				22	23				12
4	PB-01-29	5-22	15:05			14-15 Soil	1				22	23				13
5	PB-01-28	5-22	14:05 ~~4-5~~			4-5' Soil	1				22	23				14
6	PB-01-28		14:10 ~~7-8~~			7-8' Soil	1				22	23				15
7	PB-01-28		14:15			15-16' Soil	1				22	23				16
8	PB-01-28		14:20			12-13' Soil	1				23	23				17
9																
10																

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-8	MSK	[signature]	5-22	15:30
2					
3					
4					

REMARKS

SAMPLER'S SIGNATURE: MSK

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 2126

CLIENT	PHONE NO.
[illegible] GROUP	
ADDRESS	**SAMPLE**
PROJECT NO.	**PROJECT NAME** / **CLIENT CONTACT**

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)								REMARKS
								VOCs	SVOCs	SVOCs	VOCs	DATE RECEIVED				
1	PB-01-29	5/22 01	1105			1-1.5'	1	X	X							
2	PB-01-30	↓	1620			4-5'	1	X	X		23	23				
3	PB-01-31	↓	1630			8-9'	1	X	X		23	24				
4	PB-01-31	↓	1635			10-11'	1	X	X		23	24				
5																
6																
7																
8																
9																
10																

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-1	[illegible]	[illegible]	5/22/01	1230
2					
3					
4					

REMARKS

SAMPLER'S SIGNATURE: [illegible]

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0136

CLIENT	PHONE NO.
Campbell Soup	
ADDRESS	SAMPLE
Dayton, OH	
PROJECT NO.	PROJECT NAME / CLIENT CONTACT

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) VOC	SVOC	8 VOCs	VOCs	DATE RECEIVED	REMARKS
1	PB-01-12	5/23/01	8:50			14-15'	1	X	X	23	24		021
2	PB-01-12	5/23/01	9:55			12-13'	1	X	X	23	24		022
3	PB-01-32	5/23/01	8:40			6-7'	1	X	X	23	24		023
4	PB-01-32	5/23/01	8:45			8-9'	1	X	X	23	24		024
5													
6													
7													
8													
9													
10													

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-4	[illegible]	[illegible]	5/23/01	0900
2					
3					
4					

REMARKS

SAMPLER'S SIGNATURE: [illegible]

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0137

CLIENT	PHONE NO.
Campbell SOUP	
ADDRESS: Napoleon, OH	SAMPLE
PROJECT NO. / PROJECT NAME	CLIENT CONTACT

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	VOC	SVOC		SVOCS RECEIVED	VOCS CAB				REMARKS
1	PB-01-34	5/23/01	10.14			8-9'	1	X	X		23	24				025
2	PB-01-34	5/23/01	10:47			25-26'	1	X	X		23	24				026
3	PB-01-34	5/23/01	10:45			21-22'	1	X	X		23	24				027
4	[illegible]	5/23/01	11.30			Water ~~[illegible]~~ ~~11-16'~~ 11.5-16.5	3	X	X		24	24				028
5	PB-01-33	5/23/01	11.46			Water ~~[illegible]~~ ~~11-16'~~ 11.5-16.5	3	X	X		24	24				029
6	PB-01-35	5/23/01	12:15			11-16 WATER	3	X	X		24	24				030
7																
8																
9																
10																

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-5	[illegible]	[illegible]	5/23/01	1200
2	6	Michael Kennedy	[illegible]	5/23	12:15
3					
4					

REMARKS

SAMPLER'S SIGNATURE: x Michael Kennedy

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0138

CLIENT	PHONE NO.
Campbell Soup	
ADDRESS	SAMPLE
Napoleon, OH	
PROJECT NO.	PROJECT NAME / CLIENT CONTACT

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): VOCs	SVOCs	REMARKS
1	PB-01-36	5/23/01	14:55		X	Soil 4-5'		X	X	31
2	PB-01-36	5/23/01	14:40		X	Soil 8-9'		X	X	32
3	PB-01-36	5/23/01	14:45		X	Soil 12-13'		X	X	33
4	PB-01-37	5/23/01	15:00		X	Soil 4-5'		X	X	34
5	PB-01-37	5/23/01	15:10		X	Soil 8-9'		X	X	35
6	PB-01-37	5/23/01	15:20		X	Soil 12-13'		X	X	36
7	PB01-38	5/23/01	16:45		X	Soil 7-8'		X	X	37
8	PB-01-38	5/23/01	17:01		X	Soil 11-12'		X	X	38
9	PB 01-38	5/23/01	17:05		X	Soil 13-14'		X	X	39
10										

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-6	[signature]	[signature]	05234	1640
2					
3	7-9	Christine McLaughlin	[signature]	0523	1740
4					

REMARKS

SAMPLER'S SIGNATURE: [signature]

JUN. 17. 2002 2:40PM HSG ANN ARBOR NO. 218 P. 2/2

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0139

CLIENT	PHONE NO.
ADDRESS	SAMPLE
PROJECT NO. / PROJECT NAME	CLIENT CONTACT

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) VOCs	SVOCs	SVOC rec'd	VOC rec'd					REMARKS
1	PB-01-39	5-23-01	17:00		X	Soil 4-5'	1	X	X	24						#0
2	PB-01-39	5-23-01	17:05		X	Soil 7-8'	1	X	X	24						#1
3	PB-01-39	5-23-01	[illegible]		X	Soil 12-13'	1	X	X	24						#2
4																
5																
6																
7																
8																
9																
10																

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME	REMARKS
1	1-3	Michael Hanisch	[signature]	5-30-01	1835	
2						
3						
4						SAMPLER'S SIGNATURE: Michael Hanisch

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0126

CLIENT	PHONE NO.
ADDRESS	SAMPLE
PROJECT NO. / PROJECT NAME	CLIENT CONTACT

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) VOC	SVOC						REMARKS
1	PB-01-40	5/24	0935			Soil 4-5 ft			24						43
2	PB-01-40		0945			Soil 8-9 ft			24						44
3	PB-01-40		0950			Soil 12-13 ft			24						45
4	PB-01-41		1012			Soil 4-5 ft			24						46
5	PB-01-41		1022			Soil 8-9 ft			24						47
6	PB-01-41		1052			Soil 12-13 ft									48
7	PB-01-42		1048			Soil 4-5 ft		25	24						49
8	PB-01-42		1057			Soil 8-9 ft *			25						50
9	PB-01-42		1100			Soil 12-13 ft			25						51
10	PB-01-42		1102			Soil 14-15 ft			25						52

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-10	[illegible]	[illegible]	5/24	12:21
2					
3					
4					

REMARKS

SAMPLER'S SIGNATURE:

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0127

2001

CLIENT	PHONE NO.
ADDRESS	SAMPLE
PROJECT NO. / PROJECT NAME	CLIENT CONTACT

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) VOC	SVOC	VOCs Received	SVOCs Received					REMARKS
1	PB-01-43	5/24	1115			Soil 4-5 ft										53
2	PB-01-43	5/24	1133			Soil 8-9 ft										54
3	PB-01-43	5/24	1145			Soil 12-13 ft										55
4	PB-01-44	5/24	1157			Soil 4-5 ft										56
5	PB-01-44	5/24	1207			Soil 8-9 ft										57
6	PB-01-44	5/24	1215			Soil 12-13 ft										58
7																
8																
9																
10																

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME	REMARKS
1	1-6	[signature]	[signature]	5/24/01	1230	
2						
3						
4						SAMPLER'S SIGNATURE:

McNAMEE
ENGINEERING EXCELLENCE SINCE 1914

CHAIN-OF-CUSTODY RECORD

№ 16858

McNamee, Porter & Seeley, 3131 South State Street, Ann Arbor, Michigan 48108

CLIENT	ADDRESS
CAMPBELL SOUP	

PROJECT NO.	PROJECT NAME	PHONE NO.
P412.101	FORMER HOLDING PIT	

CLIENT CONTACT	SAMPLER
MIKE MARINGER	M SK

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	SVOCs	VOCs		SVOCs Reelwet	VOCs Reelwet			REMARKS
1	PB-01-45	5/24	14:36		X	SOIL 6-7'	1	X	X		25				59
2	PB-01-45	5/24	14:48		X	SOIL 10.5-11'	1	X	X						60
3	PB-01-45	5/24	14:50		X	SOIL 12-13'	1	X	X						61
4	PB-01-45	5/24	14:55		X	SOIL 14-15'	1	X	X						62
5	PB-01-46	5/24	1515		X	SOIL 4-5'	1	X	X						PID-D 63
6	PB-01-46	5/24	1520		X	SOIL 10-11'	1	X	X						64
7	PB-01-46	5/24	1530		X	SOIL 17-18'	1	X	X		24				65
8	PB-01-46	5/24	1535		X	SOIL 20-21	1	X	X		24				66
9															
10															

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-4	Michael Horsink	[signature]	5/24	15:45
2	4-8	[signature]	M Sk	5/24/01	16:30
3					
4					

REMARKS

SAMPLER'S SIGNATURE
Michael Horsink

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0128

CLIENT: CAMPBELL'S SOUP
PHONE NO.:
ADDRESS:
SAMPLE:
PROJECT NO.:
PROJECT NAME:
CLIENT CONTACT:

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) VOCs	SVOCs	REMARKS
1	PB-01-45	5/24	16:35		X	WATER 11-16		X	X	
2	PB-01-46	5/24	16:45		X	WATER 11-16		X	X	
3	PB-01-47	5/24 01	16:20			SOIL 1-3'		X	X	
4	PB-01-47	5/24	16:30		X	SOIL 9-9'		X	X	
5	PB-01-47	5/24	16:30		X	SOIL 11-12'		X	X	
6	PB-01-47	5/24	16:55		X	SOIL 15-16'				HOLD
7	PB-01-48	5/24	17:00		X	SOIL 5-6'		X	X	
8	PB-01-48	5/24	17:05		X	SOIL 11-12'		X	X	
9	PB-01-48	5/24	17:10		X	SOIL 15-16'		X	X	
10										

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-9	[illegible]	[illegible]	05/24	1800
2					
3					
4					

REMARKS

[illegible]

SAMPLER'S SIGNATURE:

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0129

CLIENT: Campbell Soup
PHONE NO.:
ADDRESS: Napoleon
SAMPLE:
PROJECT NO.:
PROJECT NAME:
CLIENT CONTACT:

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) VOC	SVOC	REMARKS
1	PB-01-49		7:00			[redacted]				
						SOIL 3-4'		X	X	
2	PB01-49		8:10			SOIL 7-8'		X	X	
3	PB-01-49		8:15			SOIL 11-12'		X	X	
4	PB-01-49		8:20			SOIL 13-14'				HOLD.*
5	PB-01-49		8:25			SOIL 15-16'				HOLD
6	PB-0150		8:45			SOIL 3-4'		X	X	
7	PB-0150		8:55			SOIL 11-12'		X	X	
8	PB-0150		9:07			SOIL 16-17'		X	X	
9	PB-01-58		9:10			SOIL 20-21'		X	X	
10										

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-5	Michael Lawrence	[redacted]	06/26	830
2	6-9	Michael Lawrence	[redacted]	06/26	915
3					
4					

REMARKS

SAMPLER'S SIGNATURE: [signature]

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0131

CLIENT	PHONE NO.
CAMPBELL'S SOUP	
ADDRESS	**SAMPLE**
DAPOLCON, OH	
PROJECT NO.	**PROJECT NAME** / **CLIENT CONTACT**

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) VOC	SVOC	REMARKS
1	PB-01-25	5-25-01	11:20			SOIL 14-15'	1	X	X	
2	PB-01-26	5-25-01	11:25			SOIL 18-19'	1	X	X	
3	PB-01-[illegible]	5-25-01	12:10			SOIL 20-21'	1	X	X	
4	PB-01-35	5/24/01	11:35			SOIL 16-17'	1	X	X	
5	~~PB-01-25~~	~~5/25/01~~	~~11:57~~			~~SOIL~~				
6	PB-01-5[illegible]	5/25/01	12:00			SOIL 3-4'	1	X	X	HOLD
7	PB-01-5[illegible]	5/25/01	12:10			SOIL 8-9	1	X	X	HOLD
8	PB-01-51	5/25/01	1215			SOIL 13-14	1	X	X	HOLD
9										
10										

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-2	[illegible]	[illegible]	[illegible]	1750
2					
3					
4					

REMARKS

SAMPLER'S SIGNATURE: [illegible]

Tetra Tech MPS
710 Avis Dr.
Ann Arbor, MI 48108

CHAIN-OF-CUSTODY RECORD

No. 0130

CLIENT	PHONE NO.
Campbell Soup	
ADDRESS	SAMPLE
Napoleon, OH	
PROJECT NO. / PROJECT NAME	CLIENT CONTACT

ITEM NO.	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) VOC	SVOC							REMARKS
1	PB-01	5/25/01	9:30			Soil 5-6'	1	X	X							85
2	PB-01		9:40			Soil 7-8'	1	X	X							86
3	PB-01		9:50			Soil 11-12'	1	X	X							87
4	PB-01		9:55			Soil 1[illegible]-16'	1	X	X							HOLD 88
5	PB 01		[illegible]			Soil 1[illegible]-17										HOLD 89
6	PB-01		10:[illegible]			Soil 12-19										HOLD 90
7	PB-01		10:12			Soil [illegible]										91
8	PB-15		10:30			Soil 12-13'										92
9	PB-15		10:35			Soil 15-16'										93
10																

TRANS. NO.	ITEM NO.	TRANSFER RELINQUISHED BY	TRANSFER ACCEPTED BY	DATE	TIME
1	1-7	Michael Hammond	[signature]	05/25/01	1030
2	8-9	[signature]			
3					
4					

REMARKS

[signature]

SAMPLER'S SIGNATURE:

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

May 15, 2002

Ms. Lesa Bagby
Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

Dear Ms. Bagby,

Attached are the revised analytical results from the mobile laboratory services provided in Napoleon, OH. The reports have been revised to reflect "J" values for those compounds detected at levels below our normal reporting levels (RLs), but above the method detection levels (MDLs) for that instrument. Please be advised that in some cases, the reasons for setting the RLs many times higher than the MDLs have to do with the compounds "hanging up" in the system. This is particularly so in the case of acetone, MEK, methylene chloride, and TCE. At "J" value levels, these compounds are just as likely to be in the equipment as in the sample. Visual review of the chromatograms revealed a distinct gasoline pattern on many. Further review of the data also revealed a rounding error, effecting the result for p&m-xylene reported for sample PB-01-28 (7-8'). The xylenes had originally been reported at 110 ppb and were corrected to120 ppb.

New Age/Landmark, Inc. certifies that to our best knowledge this data package is in compliance with the terms and conditions of the contract, both technically and for completeness. Release of the data contained in this hard copy data has been authorized by the laboratory's president or his designee.

Please review the report and contact our office if you have any questions or need additional information. Thank you for choosing New Age/Landmark, Inc. for this important project. We look forward to working with you again in the future.

Sincerely,

Kristen A. Carlyon
QA/QC Officer

enclosure

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4621
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: **PB-01-27 (4-5')**
Lab ID: **00125-07**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	357
Chloromethane	ND	ug/Kg	357
Vinyl chloride	ND	ug/Kg	143
Bromomethane	ND	ug/Kg	357
Trichlorofluoromenthane	ND	ug/Kg	357
Chloroethane	ND	ug/Kg	357
1,1-Dichloroethene	ND	ug/Kg	71
Methylene chloride	ND	ug/Kg	357
trans-1,2-Dichloroethene	ND	ug/Kg	71
MTBE	ND	ug/Kg	357
1,1-Dichloroethane	ND	ug/Kg	71
2,2-Dichloropropane	ND	ug/Kg	71
cis-1,2-Dichloroethene	ND	ug/Kg	71
Bromochloromethane	ND	ug/Kg	143
Chloroform	ND	ug/Kg	71
1,1,1-Trichloroethane	ND	ug/Kg	71
Carbon tetrachloride	ND	ug/Kg	71
1,1-Dichloropropene	ND	ug/Kg	71
Benzene	ND	ug/Kg	71
1,2-Dichloroethane	ND	ug/Kg	71
Trichloroethene	ND	ug/Kg	71
1,2-Dichloropropane	ND	ug/Kg	71
Dibromomethane	ND	ug/Kg	143
Bromodichloromethane	ND	ug/Kg	143
cis-1,3-Dichloropropene	ND	ug/Kg	71
Toluene	ND	ug/Kg	71
trans-1,3-Dichloropropene	ND	ug/Kg	71
1,1,2-Trichloroethane	ND	ug/Kg	71
Tetrachloroethene	ND	ug/Kg	71
1,3-Dichloropropane	ND	ug/Kg	71
Dibromochloromethane	ND	ug/Kg	143
1,2-Dibromoethane	ND	ug/Kg	71
Chlorobenzene	ND	ug/Kg	71
1,1,1,2-Tetrachlorethane	ND	ug/Kg	143
Ethylbenzene	1100	ug/Kg	71
m & p-Xylene	4300	ug/Kg	143
o-Xylene	1600	ug/Kg	71

Continued

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01-27 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	71
Bromoform	ND	ug/Kg	143
Isopropylbenzene	ND	ug/Kg	143
Bromobenzene	ND	ug/Kg	143
1,1,2,2-Tetrachloroethane	ND	ug/Kg	143
1,2,3-Trichloropropane	ND	ug/Kg	143
n-Propylbenzene	ND	ug/Kg	143
2-Chlorotoluene	ND	ug/Kg	143
4-Chlorotoluene	ND	ug/Kg	143
1,3,5-Trimethylbenzene	ND	ug/Kg	143
tert-Butylbenzene	1400	ug/Kg	143
1,2,4-Trimethylbenzene	ND	ug/Kg	143
sec-Butylbenzene	3200	ug/Kg	143
1,3-Dichlorobenzene	ND	ug/Kg	143
p-Isopropyltoluene	ND	ug/Kg	143
1,4-Dichlorobenzene	ND	ug/Kg	143
1,2-Dichlorobenzene	ND	ug/Kg	143
n-Butylbenzene	ND	ug/Kg	143
1,2-Dibromo-3-chloropropane	1000	ug/Kg	143
1,2,4-Trichlorobenzene	ND	ug/Kg	357
Hexachlorobutadiene	ND	ug/Kg	357
1,2,3-Trichlorobenzene	ND	ug/Kg	357
Acrylonitrite	ND	ug/Kg	357
Hexachloroethane	ND	ug/Kg	357
Methyl iodine	ND	ug/Kg	143
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	143
Acetone	1600	ug/Kg	357
Butanone 2- (MEK)	ND	ug/Kg	1786
Carbon Disulfide	ND	ug/Kg	357
Diethyl ether	ND	ug/Kg	357
Hexanone, 2-	ND	ug/Kg	714
	ND	ug/Kg	357

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	46	50	92%
1,2-Dichloroethane d4	54	50	108%
Toluene d8	64	50	128%
Bromofluorobenzene	65	50	130%

% Solids	70.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4622
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-27 (7-8')
Lab ID: 00125-08
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	ND	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	97	ug/Kg	63
m & p-Xylene	390	ug/Kg	125
o-Xylene	130	ug/Kg	63

Continued

New Age/Landmark
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Sample ID: PB-01-27 (7-8')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	ND	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	130	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	370	ug/Kg	125
sec-Butylbenzene	ND	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	ND	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	ND	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	125
1,2,4-Trichlorobenzene	ND	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	ND	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	313
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	125
Acetone	530	ug/Kg	313
Butanone 2- (MEK)	ND	ug/Kg	1563
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	313
Hexanone, 2-	ND	ug/Kg	625

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	45	50	90%
1,2-Dichloroethane d4	50	50	100%
Toluene d8	57	50	114%
Bromofluorobenzene	61	50	122%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4523
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: **PB-01-25 (12-13')**
Lab ID: **00125-05**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	15 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	14 J	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	ND	ug/Kg	63
m & p-Xylene	ND	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

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Sample ID: PB-01-25 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	6.9 J	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	9.4 J	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	19 J	ug/Kg	125
sec-Butylbenzene	6.9 J	ug/Kg	125
1,3-Dichlorobenzene	6.6 J	ug/Kg	125
p-Isopropyltoluene	9.4 J	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	13 J	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	26 J	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	32 J	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	390 J	ug/Kg	1563
Butanone 2- (MEK)	200 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	45	50	90%
1,2-Dichloroethane d4	57	50	114%
Toluene d8	58	50	116%
Bromofluorobenzene	67X	50	#VALUE!

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

1 HIGH SURR NO HITS

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4525
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: **PB-01-27 (13-14')**
Lab ID: **00125-09**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	38 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Tricbloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	14 J	ug/Kg	63
m & p-Xylene	49 J	ug/Kg	125
o-Xylene	13 J	ug/Kg	63

Continued

New Age/Landmark
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667 West Main Street
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Sample ID: PB-01-27 (13-14')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	ND	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	12 J	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	32 J	ug/Kg	125
sec-Butylbenzene	ND	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	ND	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	8.8 J	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	ND	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	ND	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	135 J	ug/Kg	1563
Butanone 2- (MEK)	81 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	41	50	82%
1,2-Dichloroethane d4	52	50	104%
Toluene d8	56	50	112%
Bromofluorobenzene	62	50	124%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4526
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: **PB-01-27 (15-16')**
Lab ID: **00125-10**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	357
Chloromethane	ND	ug/Kg	357
Vinyl chloride	ND	ug/Kg	143
Bromomethane	ND	ug/Kg	357
Trichlorofluoromenthane	ND	ug/Kg	357
Chloroethane	ND	ug/Kg	357
1,1-Dichloroethene	ND	ug/Kg	71
Methylene chloride	49 J	ug/Kg	357
trans-1,2-Dichloroethene	ND	ug/Kg	71
MTBE	ND	ug/Kg	357
1,1-Dichloroethane	ND	ug/Kg	71
2,2-Dichloropropane	ND	ug/Kg	71
cis-1,2-Dichloroethene	ND	ug/Kg	71
Bromochloromethane	ND	ug/Kg	143
Chloroform	ND	ug/Kg	71
1,1,1-Trichloroethane	ND	ug/Kg	71
Carbon tetrachloride	ND	ug/Kg	71
1,1-Dichloropropene	ND	ug/Kg	71
Benzene	ND	ug/Kg	71
1,2-Dichloroethane	ND	ug/Kg	71
Trichloroethene	ND	ug/Kg	71
1,2-Dichloropropane	ND	ug/Kg	71
Dibromomethane	ND	ug/Kg	143
Bromodichloromethane	ND	ug/Kg	143
cis-1,3-Dichloropropene	ND	ug/Kg	71
Toluene	ND	ug/Kg	71
trans-1,3-Dichloropropene	ND	ug/Kg	71
1,1,2-Trichloroethane	ND	ug/Kg	71
Tetrachloroethene	ND	ug/Kg	71
1,3-Dichloropropane	ND	ug/Kg	71
Dibromochloromethane	ND	ug/Kg	143
1,2-Dibromoethane	ND	ug/Kg	71
Chlorobenzene	ND	ug/Kg	71
1,1,1,2-Tetrachlorethane	ND	ug/Kg	143
Ethylbenzene	ND	ug/Kg	71
m & p-Xylene	ND	ug/Kg	143
o-Xylene	ND	ug/Kg	71

Continued

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Sample ID: PB-01-27 (15-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	71
Bromoform	ND	ug/Kg	143
Isopropylbenzene	ND	ug/Kg	143
Bromobenzene	ND	ug/Kg	143
1,1,2,2-Tetrachloroethane	ND	ug/Kg	143
1,2,3-Trichloropropane	ND	ug/Kg	143
n-Propylbenzene	ND	ug/Kg	143
2-Chlorotoluene	ND	ug/Kg	143
4-Chlorotoluene	ND	ug/Kg	143
1,3,5-Trimethylbenzene	ND	ug/Kg	143
tert-Butylbenzene	ND	ug/Kg	143
1,2,4-Trimethylbenzene	19 J	ug/Kg	143
sec-Butylbenzene	ND	ug/Kg	143
1,3-Dichlorobenzene	ND	ug/Kg	143
p-Isopropyltoluene	ND	ug/Kg	143
1,4-Dichlorobenzene	ND	ug/Kg	143
1,2-Dichlorobenzene	ND	ug/Kg	143
n-Butylbenzene	13 J	ug/Kg	143
1,2-Dibromo-3-chloropropane	ND	ug/Kg	357
1,2,4-Trichlorobenzene	ND	ug/Kg	357
Hexachlorobutadiene	ND	ug/Kg	357
1,2,3-Trichlorobenzene	ND	ug/Kg	357
Acrylonitrite	ND	ug/Kg	357
Hexachloroethane	ND	ug/Kg	143
Methyl iodine	ND	ug/Kg	143
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	357
Acetone	140 J	ug/Kg	1786
Butanone 2- (MEK)	79 J	ug/Kg	357
Carbon Disulfide	ND	ug/Kg	357
Diethyl ether	ND	ug/Kg	714
Hexanone, 2-	ND	ug/Kg	357

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	36	50	72%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	54	50	108%
Bromofluorobenzene	64	50	128%

% Solids	70.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4627
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: **PB-01-29 (6-7')**
Lab ID: **00125-11**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	78 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	1700	ug/Kg	63
m & p-Xylene	51 J	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

New Age/Landmark
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Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01-29 (6-7')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	210	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	820	ug/Kg	125
2-Chlorotoluene	39 J	ug/Kg	125
4-Chlorotoluene	31 J	ug/Kg	125
1,3,5-Trimethylbenzene	8.8 J	ug/Kg	125
tert-Butylbenzene	10 J	ug/Kg	125
1,2,4-Trimethylbenzene	19 J	ug/Kg	125
sec-Butylbenzene	310	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	ND	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	620	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	ND	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	ND	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	240 J	ug/Kg	1563
Butanone 2- (MEK)	120 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	46	50	92%
1,2-Dichloroethane d4	55	50	110%
Toluene d8	49	50	98%
Bromofluorobenzene	65	50	130%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4628
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: **PB-01-29 (12-13')**
Lab ID: **00125-12**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	59 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	33 J	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	13 J	ug/Kg	63
m & p-Xylene	22 J	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

New Age/Landmark
Mobile Laboratory Services
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Sample ID: PB-01-29 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	16 J	ug/Kg	125
2-Chlorotoluene	11 J	ug/Kg	125
4-Chlorotoluene	12 J	ug/Kg	125
1,3,5-Trimethylbenzene	13 J	ug/Kg	125
tert-Butylbenzene	8.1 J	ug/Kg	125
1,2,4-Trimethylbenzene	16 J	ug/Kg	125
sec-Butylbenzene	13 J	ug/Kg	125
1,3-Dichlorobenzene	9.4 J	ug/Kg	125
p-Isopropyltoluene	13 J	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	19 J	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	14 J	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	18 J	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	108 J	ug/Kg	1563
Butanone 2- (MEK)	77 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	43	50	86%
1,2-Dichloroethane d4	49	50	98%
Toluene d8	51	50	102%
Bromofluorobenzene	58	50	116%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
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Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4629
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-29 (14-15')
Lab ID: 00125-13
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	56 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	16 J	ug/Kg	63
m & p-Xylene	35 J	ug/Kg	125
o-Xylene	16 J	ug/Kg	63

Continued

New Age/Landmark
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Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01-29 (14-15')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	12 J	ug/Kg	125
2-Chlorotoluene	8.1 J	ug/Kg	125
4-Chlorotoluene	9.4 J	ug/Kg	125
1,3,5-Trimethylbenzene	19 J	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	26 J	ug/Kg	125
sec-Butylbenzene	7.5 J	ug/Kg	125
1,3-Dichlorobenzene	6.9 J	ug/Kg	125
p-Isopropyltoluene	10 J	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	15 J	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	16 J	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	21 J	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	190 J	ug/Kg	1563
Butanone 2- (MEK)	130 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	42	50	84%
1,2-Dichloroethane d4	57	50	114%
Toluene d8	43	50	86%
Bromofluorobenzene	67 X	50	134%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

X=1 HIGH SURR NO HITS

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4630
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: **PB-01-28** (4-5')
Lab ID: **00125-14**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	140 J	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	35 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	22 J	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	ND	ug/Kg	63
m & p-Xylene	ND	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

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Sample ID: PB-01-28 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	7.5 J	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	9.4 J	ug/Kg	125
1,3,5-Trimethylbenzene	7.5 J	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	ND	ug/Kg	125
sec-Butylbenzene	8.8 J	ug/Kg	125
1,3-Dichlorobenzene	8.1 J	ug/Kg	125
p-Isopropyltoluene	10 J	ug/Kg	125
1,4-Dichlorobenzene	14 J	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	11 J	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	21 J	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	24 J	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	170 J	ug/Kg	1563
Butanone 2- (MEK)	110 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	47	50	94%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	52	50	104%
Bromofluorobenzene	61	50	122%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4631
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: **PB-01-28 (7-8')**
Lab ID: **00125-15**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	278
Chloromethane	ND	ug/Kg	278
Vinyl chloride	ND	ug/Kg	111
Bromomethane	ND	ug/Kg	278
Trichlorofluoromenthane	ND	ug/Kg	278
Chloroethane	ND	ug/Kg	278
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	63 J	ug/Kg	278
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	278
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	111
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	13 J	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	ND	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ng/Kg	111
Bromodichloromethane	ND	ug/Kg	111
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	39 J	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	111
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	111
Ethylbenzene	44 J	ug/Kg	56
m & p-Xylene	120	ug/Kg	111
o-Xylene	55 J	ug/Kg	56

Continued

New Age/Landmark
Mobile Laboratory Services
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Sample ID: PB-01-28 (7-8')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	111
Isopropylbenzene	ND	ug/Kg	111
Bromobenzene	ND	ug/Kg	111
1,1,2,2-Tetrachloroethane	ND	ug/Kg	111
1,2,3-Trichloropropane	ND	ug/Kg	111
n-Propylbenzene	23 J	ug/Kg	111
2-Chlorotoluene	11 J	ug/Kg	111
4-Chlorotoluene	12 J	ug/Kg	111
1,3,5-Trimethylbenzene	15 J	ug/Kg	111
tert-Butylbenzene	6.7 J	ug/Kg	111
1,2,4-Trimethylbenzene	33 J	ug/Kg	111
sec-Butylbenzene	15 J	ug/Kg	111
1,3-Dichlorobenzene	13 J	ug/Kg	111
p-Isopropyltoluene	17 J	ug/Kg	111
1,4-Dichlorobenzene	17 J	ug/Kg	111
1,2-Dichlorobenzene	11 J	ug/Kg	111
n-Butylbenzene	22 J	ug/Kg	111
1,2-Dibromo-3-chloropropane	ND	ug/Kg	278
1,2,4-Trichlorobenzene	36 J	ug/Kg	278
Hexachlorobutadiene	ND	ug/Kg	278
1,2,3-Trichlorobenzene	38 J	ug/Kg	278
Acrylonitrite	ND	ug/Kg	278
Hexachloroethane	ND	ug/Kg	111
Methyl iodine	ND	ug/Kg	111
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	278
Acetone	260 J	ug/Kg	1389
Butanone 2- (MEK)	120 J	ug/Kg	278
Carbon Disulfide	ND	ug/Kg	278
Diethyl ether	ND	ug/Kg	556
Hexanone, 2-	ND	ug/Kg	278

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	49	50	98%
1,2-Dichloroethane d4	55	50	110%
Toluene d8	52	50	104%
Bromofluorobenzene	64	50	128%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4632
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-28 (15-16')
Lab ID: 00125-16
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	130 J	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	52 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	ND	ug/Kg	63
m & p-Xylene	ND	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

New Age/Landmark
Mobile Laboratory Services
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Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01-28 (15-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	ND	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	9.4 J	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	16 J	ug/Kg	125
sec-Butylbenzene	ND	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	8.1 J	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	17 J	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	18 J	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	19 J	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	190 J	ug/Kg	1563
Butanone 2- (MEK)	92 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	50	50	100%
1,2-Dichloroethane d4	52	50	104%
Toluene d8	54	50	108%
Bromofluorobenzene	62	50	124%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4633
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-28 (12-13')
Lab ID: 00125-17
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	82 J	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	57 J	ug/Kg	313
trans-1,2-Dichloroethene	21 J	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	25 J	ug/Kg	63
Benzene	32 J	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	34 J	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	94	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	38 J	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	33 J	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	56 J	ug/Kg	63
m & p-Xylene	130	ug/Kg	125
o-Xylene	64 J	ug/Kg	63

Continued

New Age/Landmark
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Sample ID: PB-01-28 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	31 J	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	39 J	ug/Kg	125
Bromobenzene	29 J	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	53 J	ug/Kg	125
2-Chlorotoluene	41 J	ug/Kg	125
4-Chlorotoluene	46 J	ug/Kg	125
1,3,5-Trimethylbenzene	41 J	ug/Kg	125
tert-Butylbenzene	22 J	ug/Kg	125
1,2,4-Trimethylbenzene	57 J	ug/Kg	125
sec-Butylbenzene	33 J	ug/Kg	125
1,3-Dichlorobenzene	45 J	ug/Kg	125
p-Isopropyltoluene	42 J	ug/Kg	125
1,4-Dichlorobenzene	51 J	ug/Kg	125
1,2-Dichlorobenzene	37 J	ug/Kg	125
n-Butylbenzene	52 J	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	87 J	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	86 J	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	170 J	ug/Kg	1563
Butanone 2- (MEK)	110 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	51	50	102%
1,2-Dichloroethane d4	54	50	108%
Toluene d8	56	50	112%
Bromofluorobenzene	62	50	124%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4634
Analysis Date: 23-May-01
Preservation Date: 22-May-01 0-Jan-00
Operator: LEW
Sample ID: **PB-01-31 (4-5')**
Lab ID: **00125-18**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	180 J	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	35 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	15 J	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	31 J	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	52 J	ug/Kg	63
m & p-Xylene	310	ug/Kg	125
o-Xylene	96	ug/Kg	63

Continued

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Sample ID: PB-01-31 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	29 J	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	30 J	ug/Kg	125
2-Chlorotoluene	9.4 J	ug/Kg	125
4-Chlorotoluene	20 J	ug/Kg	125
1,3,5-Trimethylbenzene	89 J	ug/Kg	125
tert-Butylbenzene	7.5 J	ug/Kg	125
1,2,4-Trimethylbenzene	180 J	ug/Kg	125
sec-Butylbenzene	21 J	ug/Kg	125
1,3-Dichlorobenzene	9.4 J	ug/Kg	125
p-Isopropyltoluene	64 J	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	24 J	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	18 J	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	18 J	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	78 J	ug/Kg	313
Acetone	280 J	ug/Kg	1563
Butanone 2- (MEK)	99 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	44	50	88%
1.2-Dichloroethane d4	49	50	98%
Toluene d8	49	50	98%
Bromofluorobenzene	57	50	114%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4642
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: **PB-01-23 (4-5')**
Lab ID: **00125-01**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	970	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	310	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	20 J	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: PB-01-23 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	6.0 J	ug/Kg	100
1,3,5-Trimethylbenzene	8.0 J	ug/Kg	100
tert-Butylbenzene	6.0 J	ug/Kg	100
1,2,4-Trimethylbenzene	19 J	ug/Kg	100
sec-Butylbenzene	9.0 J	ug/Kg	100
1,3-Dichlorobenzene	9.5 J	ug/Kg	100
p-Isopropyltoluene	14 J	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	15 J	ug/Kg	100
n-Butylbenzene	16 J	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	110 J	ug/Kg	250
Hexachlorobutadiene	100 J	ug/Kg	250
1,2,3-Trichlorobenzene	160 J	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	280 J	ug/Kg	1250
Butanone 2- (MEK)	130 J	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	47	50	94%
1,2-Dichloroethane d4	57	50	114%
Toluene d8	54	50	108%
Bromofluorobenzene	64	50	128%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4643
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-23 (8-9')
Lab ID: 00125-02
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	357
Chloromethane	ND	ug/Kg	357
Vinyl chloride	ND	ug/Kg	143
Bromomethane	ND	ug/Kg	357
Trichlorofluoromenthane	ND	ug/Kg	357
Chloroethane	ND	ug/Kg	357
1,1-Dichloroethene	ND	ug/Kg	71
Methylene chloride	31 J	ug/Kg	357
trans-1,2-Dichloroethene	ND	ug/Kg	71
MTBE	ND	ug/Kg	357
1,1-Dichloroethane	ND	ug/Kg	71
2,2-Dichloropropane	ND	ug/Kg	71
cis-1,2-Dichloroethene	ND	ug/Kg	71
Bromochloromethane	ND	ug/Kg	143
Chloroform	ND	ug/Kg	71
1,1,1-Trichloroethane	ND	ug/Kg	71
Carbon tetrachloride	ND	ug/Kg	71
1,1-Dichloropropene	ND	ug/Kg	71
Benzene	ND	ug/Kg	71
1,2-Dichloroethane	ND	ug/Kg	71
Trichloroethene	ND	ug/Kg	71
1,2-Dichloropropane	ND	ug/Kg	71
Dibromomethane	ND	ug/Kg	143
Bromodichloromethane	ND	ug/Kg	143
cis-1,3-Dichloropropene	ND	ug/Kg	71
Toluene	ND	ug/Kg	71
trans-1,3-Dichloropropene	ND	ug/Kg	71
1,1,2-Trichloroethane	ND	ug/Kg	71
Tetrachloroethene	ND	ug/Kg	71
1,3-Dichloropropane	ND	ug/Kg	71
Dibromochloromethane	ND	ug/Kg	143
1,2-Dibromoethane	ND	ug/Kg	71
Chlorobenzene	ND	ug/Kg	71
1,1,1,2-Tetrachlorethane	ND	ug/Kg	143
Ethylbenzene	ND	ug/Kg	71
m & p-Xylene	14 J	ug/Kg	143
o-Xylene	ND	ug/Kg	71

Continued

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Sample ID: PB-01-23 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	71
Bromoform	ND	ug/Kg	143
Isopropylbenzene	ND	ug/Kg	143
Bromobenzene	ND	ug/Kg	143
1,1,2,2-Tetrachloroethane	ND	ug/Kg	143
1,2,3-Trichloropropane	ND	ug/Kg	143
n-Propylbenzene	ND	ug/Kg	143
2-Chlorotoluene	ND	ug/Kg	143
4-Chlorotoluene	ND	ug/Kg	143
1,3,5-Trimethylbenzene	ND	ug/Kg	143
tert-Butylbenzene	ND	ug/Kg	143
1,2,4-Trimethylbenzene	17 J	ug/Kg	143
sec-Butylbenzene	ND	ug/Kg	143
1,3-Dichlorobenzene	ND	ug/Kg	143
p-Isopropyltoluene	ND	ug/Kg	143
1,4-Dichlorobenzene	ND	ug/Kg	143
1,2-Dichlorobenzene	ND	ug/Kg	143
n-Butylbenzene	ND	ug/Kg	143
1,2-Dibromo-3-chloropropane	ND	ug/Kg	357
1,2,4-Trichlorobenzene	ND	ug/Kg	357
Hexachlorobutadiene	ND	ug/Kg	357
1,2,3-Trichlorobenzene	27 J	ug/Kg	357
Acrylonitrite	ND	ug/Kg	357
Hexachloroethane	ND	ug/Kg	143
Methyl iodine	ND	ug/Kg	143
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	357
Acetone	300 J	ug/Kg	1786
Butanone 2- (MEK)	150 J	ug/Kg	357
Carbon Disulfide	ND	ug/Kg	357
Diethyl ether	ND	ug/Kg	714
Hexanone, 2-	ND	ug/Kg	357

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	46	50	92%
1,2-Dichloroethane d4	57	50	114%
Toluene d8	54	50	108%
Bromofluorobenzene	62	50	124%

% Solids	70.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4644
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: **PB-01-23 (12-13')**
Lab ID: **00125-03**
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	510	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	100 J	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	22 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	ND	ug/Kg	63
m & p-Xylene	ND	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

New Age/Landmark
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Sample ID: PB-01-23 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	ND	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	ND	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	ND	ug/Kg	125
sec-Butylbenzene	ND	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	ND	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	ND	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	ND	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	ND	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	400 J	ug/Kg	1563
Butanone 2- (MEK)	140 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	50	50	100%
1,2-Dichloroethane d4	62	50	124%
Toluene d8	58	50	116%
Bromofluorobenzene	66X	50	#VALUE!

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4645
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-24 (4-5')
Lab ID: 00125-04
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	ND	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	ND	ug/Kg	63
m & p-Xylene	110	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

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Sample ID: PB-01-24 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	ND	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	1200	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	480	ug/Kg	125
sec-Butylbenzene	ND	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	ND	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	ND	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	ND	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	ND	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	ND	ug/Kg	1563
Butanone 2- (MEK)	ND	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	47	50	94%
1,2-Dichloroethane d4	59	50	118%
Toluene d8	55	50	110%
Bromofluorobenzene	62	50	124%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4646
Analysis Date: 24-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-25 (15-16')
Lab ID: 00125-06
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	357
Chloromethane	ND	ug/Kg	357
Vinyl chloride	ND	ug/Kg	143
Bromomethane	ND	ug/Kg	357
Trichlorofluoromenthane	ND	ug/Kg	357
Chloroethane	ND	ug/Kg	357
1,1-Dichloroethene	ND	ug/Kg	71
Methylene chloride	ND	ug/Kg	357
trans-1,2-Dichloroethene	ND	ug/Kg	71
MTBE	ND	ug/Kg	357
1,1-Dichloroethane	ND	ug/Kg	71
2,2-Dichloropropane	ND	ug/Kg	71
cis-1,2-Dichloroethene	ND	ug/Kg	71
Bromochloromethane	ND	ug/Kg	143
Chloroform	ND	ug/Kg	71
1,1,1-Trichloroethane	ND	ug/Kg	71
Carbon tetrachloride	ND	ug/Kg	71
1,1-Dichloropropene	ND	ug/Kg	71
Benzene	ND	ug/Kg	71
1,2-Dichloroethane	ND	ug/Kg	71
Trichloroethene	ND	ug/Kg	71
1,2-Dichloropropane	ND	ug/Kg	71
Dibromomethane	ND	ug/Kg	143
Bromodichloromethane	ND	ug/Kg	143
cis-1,3-Dichloropropene	ND	ug/Kg	71
Toluene	ND	ug/Kg	71
trans-1,3-Dichloropropene	ND	ug/Kg	71
1,1,2-Trichloroethane	ND	ug/Kg	71
Tetrachloroethene	ND	ug/Kg	71
1,3-Dichloropropane	ND	ug/Kg	71
Dibromochloromethane	ND	ug/Kg	143
1,2-Dibromoethane	ND	ug/Kg	71
Chlorobenzene	ND	ug/Kg	71
1,1,1,2-Tetrachlorethane	ND	ug/Kg	143
Ethylbenzene	ND	ug/Kg	71
m & p-Xylene	160	ug/Kg	143
o-Xylene	ND	ug/Kg	71

Continued

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Sample ID: PB-01-25 (15-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	71
Bromoform	ND	ug/Kg	143
Isopropylbenzene	ND	ug/Kg	143
Bromobenzene	ND	ug/Kg	143
1,1,2,2-Tetrachloroethane	ND	ug/Kg	143
1,2,3-Trichloropropane	ND	ug/Kg	143
n-Propylbenzene	ND	ug/Kg	143
2-Chlorotoluene	ND	ug/Kg	143
4-Chlorotoluene	ND	ug/Kg	143
1,3,5-Trimethylbenzene	380	ug/Kg	143
tert-Butylbenzene	ND	ug/Kg	143
1,2,4-Trimethylbenzene	830	ug/Kg	143
sec-Butylbenzene	ND	ug/Kg	143
1,3-Dichlorobenzene	ND	ug/Kg	143
p-Isopropyltoluene	ND	ug/Kg	143
1,4-Dichlorobenzene	ND	ug/Kg	143
1,2-Dichlorobenzene	ND	ug/Kg	143
n-Butylbenzene	ND	ug/Kg	143
1,2-Dibromo-3-chloropropane	ND	ug/Kg	357
1,2,4-Trichlorobenzene	ND	ug/Kg	357
Hexachlorobutadiene	ND	ug/Kg	357
1,2,3-Trichlorobenzene	ND	ug/Kg	357
Acrylonitrite	ND	ug/Kg	357
Hexachloroethane	ND	ug/Kg	143
Methyl iodine	ND	ug/Kg	143
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	357
Acetone	ND	ug/Kg	1786
Butanone 2- (MEK)	ND	ug/Kg	357
Carbon Disulfide	ND	ug/Kg	357
Diethyl ether	ND	ug/Kg	714
Hexanone, 2-	ND	ug/Kg	357

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	46	50	92%
1,2-Dichloroethane d4	60	50	120%
Toluene d8	54	50	108%
Bromofluorobenzene	64	50	128%

% Solids	70.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4647
Analysis Date: 24-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-31 (8-9')
Lab ID: 00125-19
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	417
Chloromethane	150 J	ug/Kg	417
Vinyl chloride	ND	ug/Kg	167
Bromomethane	ND	ug/Kg	417
Trichlorofluoromenthane	ND	ug/Kg	417
Chloroethane	ND	ug/Kg	417
1,1-Dichloroethene	ND	ug/Kg	83
Methylene chloride	37 J	ug/Kg	417
trans-1,2-Dichloroethene	ND	ug/Kg	83
MTBE	ND	ug/Kg	417
1,1-Dichloroethane	ND	ug/Kg	83
2,2-Dichloropropane	ND	ug/Kg	83
cis-1,2-Dichloroethene	ND	ug/Kg	83
Bromochloromethane	ND	ug/Kg	167
Chloroform	ND	ug/Kg	83
1,1,1-Trichloroethane	ND	ug/Kg	83
Carbon tetrachloride	ND	ug/Kg	83
1,1-Dichloropropene	ND	ug/Kg	83
Benzene	ND	ug/Kg	83
1,2-Dichloroethane	ND	ug/Kg	83
Trichloroethene	ND	ug/Kg	83
1,2-Dichloropropane	ND	ug/Kg	83
Dibromomethane	ND	ug/Kg	167
Bromodichloromethane	ND	ug/Kg	167
cis-1,3-Dichloropropene	ND	ug/Kg	83
Toluene	ND	ug/Kg	83
trans-1,3-Dichloropropene	ND	ug/Kg	83
1,1,2-Trichloroethane	ND	ug/Kg	83
Tetrachloroethene	ND	ug/Kg	83
1,3-Dichloropropane	ND	ug/Kg	83
Dibromochloromethane	ND	ug/Kg	167
1,2-Dibromoethane	ND	ug/Kg	83
Chlorobenzene	ND	ug/Kg	83
1,1,1,2-Tetrachlorethane	ND	ug/Kg	167
Ethylbenzene	ND	ug/Kg	83
m & p-Xylene	37 J	ug/Kg	167
o-Xylene	ND	ug/Kg	83

Continued

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Sample ID: PB-01-31 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	83
Bromoform	ND	ug/Kg	167
Isopropylbenzene	ND	ug/Kg	167
Bromobenzene	ND	ug/Kg	167
1,1,2,2-Tetrachloroethane	ND	ug/Kg	167
1,2,3-Trichloropropane	ND	ug/Kg	167
n-Propylbenzene	9.2 J	ug/Kg	167
2-Chlorotoluene	ND	ug/Kg	167
4-Chlorotoluene	10 J	ug/Kg	167
1,3,5-Trimethylbenzene	21 J	ug/Kg	167
tert-Butylbenzene	ND	ug/Kg	167
1,2,4-Trimethylbenzene	26 J	ug/Kg	167
sec-Butylbenzene	11 J	ug/Kg	167
1,3-Dichlorobenzene	11 J	ug/Kg	167
p-Isopropyltoluene	11 J	ug/Kg	167
1,4-Dichlorobenzene	ND	ug/Kg	167
1,2-Dichlorobenzene	ND	ug/Kg	167
n-Butylbenzene	14 J	ug/Kg	167
1,2-Dibromo-3-chloropropane	ND	ug/Kg	417
1,2,4-Trichlorobenzene	17 J	ug/Kg	417
Hexachlorobutadiene	ND	ug/Kg	417
1,2,3-Trichlorobenzene	21 J	ug/Kg	417
Acrylonitrite	ND	ug/Kg	417
Hexachloroethane	ND	ug/Kg	167
Methyl iodine	ND	ug/Kg	167
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	417
Acetone	360 J	ug/Kg	2083
Butanone 2- (MEK)	190 J	ug/Kg	417
Carbon Disulfide	ND	ug/Kg	417
Diethyl ether	ND	ug/Kg	833
Hexanone, 2-	ND	ug/Kg	417

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	44	50	88%
1,2-Dichloroethane d4	58	50	116%
Toluene d8	56	50	112%
Bromofluorobenzene	60	50	120%

% Solids	60.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4648
Analysis Date: 24-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-31 (10-11')
Lab ID: 00125-20
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	316
Chloromethane	127 J	ug/Kg	316
Vinyl chloride	ND	ug/Kg	127
Bromomethane	ND	ug/Kg	316
Trichlorofluoromenthane	ND	ug/Kg	316
Chloroethane	ND	ug/Kg	316
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	32 J	ug/Kg	316
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	316
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	127
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	127
Bromodichloromethane	ND	ug/Kg	127
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	127
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	127
Ethylbenzene	ND	ug/Kg	63
m & p-Xylene	24 J	ug/Kg	127
o-Xylene	ND	ug/Kg	63

Continued

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Sample ID: PB-01-31 (10-11')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	127
Isopropylbenzene	ND	ug/Kg	127
Bromobenzene	ND	ug/Kg	127
1,1,2,2-Tetrachloroethane	ND	ug/Kg	127
1,2,3-Trichloropropane	ND	ug/Kg	127
n-Propylbenzene	11 J	ug/Kg	127
2-Chlorotoluene	8.9 J	ug/Kg	127
4-Chlorotoluene	7.0 J	ug/Kg	127
1,3,5-Trimethylbenzene	8.2 J	ug/Kg	127
tert-Butylbenzene	ND	ug/Kg	127
1,2,4-Trimethylbenzene	15 J	ug/Kg	127
sec-Butylbenzene	8.2 J	ug/Kg	127
1,3-Dichlorobenzene	7.6 J	ug/Kg	127
p-Isopropyltoluene	11 J	ug/Kg	127
1,4-Dichlorobenzene	ND	ug/Kg	127
1,2-Dichlorobenzene	ND	ug/Kg	127
n-Butylbenzene	12 J	ug/Kg	127
1,2-Dibromo-3-chloropropane	ND	ug/Kg	316
1,2,4-Trichlorobenzene	16 J	ug/Kg	316
Hexachlorobutadiene	ND	ug/Kg	316
1,2,3-Trichlorobenzene	18 J	ug/Kg	316
Acrylonitrite	ND	ug/Kg	316
Hexachloroethane	ND	ug/Kg	127
Methyl iodine	ND	ug/Kg	127
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	316
Acetone	300 J	ug/Kg	1582
Butanone 2- (MEK)	ND	ug/Kg	316
Carbon Disulfide	ND	ug/Kg	316
Diethyl ether	ND	ug/Kg	633
Hexanone, 2-	ND	ug/Kg	316

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	45	50	90%
1,2-Dichloroethane d4	60	50	120%
Toluene d8	52	50	104%
Bromofluorobenzene	61	50	122%

% Solids	79.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4635
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-23 (12-13') MS
Lab ID: 00125-18 MS
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	76	0	ug/Kg	50	152%
Chloromethane	79	0	ug/Kg	50	158%
Vinyl chloride	64	0	ug/Kg	50	128%
Bromomethane	26	0	ug/Kg	50	52%
Trichlorofluoromenthane	29	0	ug/Kg	50	58%
Chloroethane	6	0	ug/Kg	50	12%
1,1-Dichloroethene	41	0	ug/Kg	50	82%
Methylene chloride	39	0	ug/Kg	50	78%
trans-1,2-Dichloroethene	38	0	ug/Kg	50	76%
MTBE	42	0	ug/Kg	50	84%
1,1-Dichloroethane	41	0	ug/Kg	50	82%
2,2-Dichloropropane	28	0	ug/Kg	50	56%
cis-1,2-Dichloroethene	36	0	ug/Kg	50	72%
Bromochloromethane	32	0	ug/Kg	50	64%
Chloroform	36	0	ug/Kg	50	72%
1,1,1-Trichloroethane	30	0	ug/Kg	50	60%
Carbon tetrachloride	37	0	ug/Kg	50	74%
1,1-Dichloropropene	43	0	ug/Kg	50	86%
Benzene	46	0	ug/Kg	50	92%
1,2-Dichloroethane	45	0	ug/Kg	50	90%
Trichloroethene	41	0	ug/Kg	50	82%
1,2-Dichloropropane	47	0	ug/Kg	50	94%
Dibromomethane	39	0	ug/Kg	50	78%
Bromodichloromethane	35	0	ug/Kg	50	70%
cis-1,3-Dichloropropene	39	0	ug/Kg	50	78%
Toluene	44	0	ug/Kg	50	88%
trans-1,3-Dichloropropene	36	0	ug/Kg	50	72%
1,1,2-Trichloroethane	38	0	ug/Kg	50	76%
Tetrachloroethene	50	0	ug/Kg	50	100%
1,3-Dichloropropane	42	0	ug/Kg	50	84%
Dibromochloromethane	35	0	ug/Kg	50	70%
1,2-Dibromoethane	40	0	ug/Kg	50	80%
Chlorobenzene	54	0	ug/Kg	50	108%
1,1,1,2-Tetrachlorethane	46	0	ug/Kg	50	92%
Ethylbenzene	58	0	ug/Kg	50	116%
m & p-Xylene	111	0	ug/Kg	100	111%
o-Xylene	54	0	ug/Kg	50	108%

Continued

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Sample ID: PB-01-23 (12-13') MS

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec
Styrene	52	0	ug/Kg	50	104%
Bromoform	30	0	ug/Kg	50	60%
Isopropylbenzene	57	0	ug/Kg	50	114%
Bromobenzene	46	0	ug/Kg	50	92%
1,1,2,2-Tetrachloroethane	37	0	ug/Kg	50	74%
1,2,3-Trichloropropane	40	0	ug/Kg	50	80%
n-Propylbenzene	54	0	ug/Kg	50	108%
2-Chlorotoluene	51	0	ug/Kg	50	102%
4-Chlorotoluene	49	0	ug/Kg	50	98%
1,3,5-Trimethylbenzene	54	0	ug/Kg	50	108%
tert-Butylbenzene	46	0	ug/Kg	50	92%
1,2,4-Trimethylbenzene	51	0	ug/Kg	50	102%
sec-Butylbenzene	51	0	ug/Kg	50	102%
1,3-Dichlorobenzene	44	0	ug/Kg	50	88%
p-Isopropyltoluene	48	0	ug/Kg	50	96%
1,4-Dichlorobenzene	42	0	ug/Kg	50	84%
1,2-Dichlorobenzene	42	0	ug/Kg	50	84%
n-Butylbenzene	49	0	ug/Kg	50	98%
1,2-Dibromo-3-chloropropane	36	0	ug/Kg	50	72%
1,2,4-Trichlorobenzene	49	0	ug/Kg	50	98%
Hexachlorobutadiene	49	0	ug/Kg	50	98%
1,2,3-Trichlorobenzene	48	0	ug/Kg	50	96%
Acrylonitrite		0	ug/Kg	51	0%
Hexachloroethane		0	ug/Kg	52	0%
Methyl iodine		0	ug/Kg	53	0%
Methyl 4,-2-Propanone (MIBK)	38	0	ug/Kg	54	70%
Acetone	47	0	ug/Kg	55	85%
Butanone 2- (MEK)	40	0	ug/Kg	56	71%
Carbon Disulfide	36	0	ug/Kg	57	63%
Diethyl ether	42	0	ug/Kg	58	72%
Hexanone, 2-	37	0	ug/Kg	59	63%

Surrogates		Spike Amount	% Rec
Dibromofluoromethane	40	50	80%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	52	50	104%
Bromofluorobenzene	51	50	102%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4636
Analysis Date: 23-May-01
Preservation Date: 22-May-01
Operator: LEW
Sample ID: PB-01-23 (12-13') MSD
Lab ID: 00125-18 MSD
Matrix: Soil
Date Sampled: 22-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec	% RSD
Dichlorodifluoromethane	59	0	ug/Kg	50	118%	-25%
Chloromethane	66	0	ug/Kg	50	132%	-18%
Vinyl chloride	56	0	ug/Kg	50	112%	-13%
Bromomethane	28	0	ug/Kg	50	56%	7%
Trichlorofluoromenthane	36	0	ug/Kg	50	72%	22%
Chloroethane	7	0	ug/Kg	50	14%	15%
1,1-Dichloroethene	41	0	ug/Kg	50	82%	0%
Methylene chloride	43	0	ug/Kg	50	86%	10%
trans-1,2-Dichloroethene	42	0	ug/Kg	50	84%	10%
MTBE	48	0	ug/Kg	50	96%	13%
1,1-Dichloroethane	46	0	ug/Kg	50	92%	11%
2,2-Dichloropropane	32	0	ug/Kg	50	64%	13%
cis-1,2-Dichloroethene	38	0	ug/Kg	50	76%	5%
Bromochloromethane	36	0	ug/Kg	50	72%	12%
Chloroform	38	0	ug/Kg	50	76%	5%
1,1,1-Trichloroethane	36	0	ug/Kg	50	72%	18%
Carbon tetrachloride	39	0	ug/Kg	50	78%	5%
1,1-Dichloropropene	45	0	ug/Kg	50	90%	5%
Benzene	42	0	ug/Kg	50	84%	-9%
1,2-Dichloroethane	45	0	ug/Kg	50	90%	0%
Trichloroethene	46	0	ug/Kg	50	92%	11%
1,2-Dichloropropane	52	0	ug/Kg	50	104%	10%
Dibromomethane	43	0	ug/Kg	50	86%	10%
Bromodichloromethane	35	0	ug/Kg	50	70%	0%
cis-1,3-Dichloropropene	52	0	ug/Kg	50	104%	29%
Toluene	56	0	ug/Kg	50	112%	24%
trans-1,3-Dichloropropene	50	0	ug/Kg	50	100%	33%
1,1,2-Trichloroethane	57	0	ug/Kg	50	114%	40%
Tetrachloroethene	73	0	ug/Kg	50	146%	37%
1,3-Dichloropropane	57	0	ug/Kg	50	114%	30%
Dibromochloromethane	37	0	ug/Kg	50	74%	6%
1,2-Dibromoethane	44	0	ug/Kg	50	88%	10%
Chlorobenzene	59	0	ug/Kg	50	118%	9%
1,1,1,2-Tetrachlorethane	50	0	ug/Kg	50	100%	8%
Ethylbenzene	62	0	ug/Kg	50	124%	7%
m & p-Xylene	119	0	ug/Kg	100	119%	7%
o-Xylene	62	0	ug/Kg	50	124%	14%

Continued

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Sample ID: PB-01-23 (12-13') MSD

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec	% RSD
Styrene	57	0	ug/Kg	50	114%	9%
Bromoform	35	0	ug/Kg	50	70%	15%
Isopropylbenzene	64	0	ug/Kg	50	128%	12%
Bromobenzene	54	0	ug/Kg	50	108%	16%
1,1,2,2-Tetrachloroethane	42	0	ug/Kg	50	84%	13%
1,2,3-Trichloropropane	50	0	ug/Kg	50	100%	22%
n-Propylbenzene	62	0	ug/Kg	50	124%	14%
2-Chlorotoluene	59	0	ug/Kg	50	118%	15%
4-Chlorotoluene	59	0	ug/Kg	50	118%	19%
1,3,5-Trimethylbenzene	63	0	ug/Kg	50	126%	15%
tert-Butylbenzene	52	0	ug/Kg	50	104%	12%
1,2,4-Trimethylbenzene	58	0	ug/Kg	50	116%	13%
sec-Butylbenzene	56	0	ug/Kg	50	112%	9%
1,3-Dichlorobenzene	51	0	ug/Kg	50	102%	15%
p-Isopropyltoluene	54	0	ug/Kg	50	108%	12%
1,4-Dichlorobenzene	49	0	ug/Kg	50	98%	15%
1,2-Dichlorobenzene	49	0	ug/Kg	50	98%	15%
n-Butylbenzene	51	0	ug/Kg	50	102%	4%
1,2-Dibromo-3-chloropropane	41	0	ug/Kg	50	82%	13%
1,2,4-Trichlorobenzene	51	0	ug/Kg	50	102%	4%
Hexachlorobutadiene	50	0	ug/Kg	50	100%	2%
1,2,3-Trichlorobenzene	53	0	ug/Kg	50	106%	10%
Acrylonitrite		0	ug/Kg	51	0%	#DIV/0!
Hexachloroethane		0	ug/Kg	52	0%	#DIV/0!
Methyl iodine		0	ug/Kg	53	0%	#DIV/0!
Methyl 4,-2-Propanone (MIBK)	44	0	ug/Kg	54	81%	15%
Acetone	47	0	ug/Kg	55	85%	0%
Butanone 2- (MEK)	42	0	ug/Kg	56	75%	5%
Carbon Disulfide	41	0	ug/Kg	57	72%	13%
Diethyl ether	42	0	ug/Kg	58	72%	0%
Hexanone, 2-	42	0	ug/Kg	59	71%	13%

Surrogates			Spike Amount	% Rec	% RSD
Dibromofluoromethane	41		50	82%	2%
1,2-Dichloroethane d4	46		50	92%	-10%
Toluene d8	64		50	128%	21%
Bromofluorobenzene	55		50	110%	8%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4617
Analysis Date: 23-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: CCV @ 50 NG
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	64	ug/L	50	128%
Chloromethane	60	ug/L	50	120%
Vinyl chloride	56	ug/L	50	112%
Bromomethane	48	ug/L	50	96%
Trichlorofluoromenthane	47	ug/L	50	94%
Chloroethane	39	ug/L	50	78%
1,1-Dichloroethene	46	ug/L	50	92%
Methylene chloride	46	ug/L	50	92%
trans-1,2-Dichloroethene	49	ug/L	50	98%
MTBE	50	ug/L	50	100%
1,1-Dichloroethane	50	ug/L	50	100%
2,2-Dichloropropane	40	ug/L	50	80%
cis-1,2-Dichloroethene	48	ug/L	50	96%
Bromochloromethane	46	ug/L	50	92%
Chloroform	45	ug/L	50	90%
1,1,1-Trichloroethane	43	ug/L	50	86%
Carbon tetrachloride	41	ug/L	50	82%
1,1-Dichloropropene	49	ug/L	50	98%
Benzene	48	ug/L	50	96%
1,2-Dichloroethane	44	ug/L	50	88%
Trichloroethene	43	ug/L	50	86%
1,2-Dichloropropane	48	ug/L	50	96%
Dibromomethane	41	ug/L	50	82%
Bromodichloromethane	42	ug/L	50	84%
cis-1,3-Dichloropropene	46	ug/L	50	92%
Toluene	51	ug/L	50	102%
trans-1,3-Dichloropropene	40	ug/L	50	80%
1,1,2-Trichloroethane	45	ug/L	50	90%
Tetrachloroethene	51	ug/L	50	102%
1,3-Dichloropropane	47	ug/L	50	94%
Dibromochloromethane	38	ug/L	50	76%
1,2-Dibromoethane	42	ug/L	50	84%
Chlorobenzene	50	ug/L	50	100%
1,1,1,2-Tetrachlorethane	44	ug/L	50	88%
Ethylbenzene	54	ug/L	50	108%
m & p-Xylene	108	ug/L	100	108%
o-Xylene	58	ug/L	50	116%

Continued

New Age/Landmark
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Sample ID: CCV @ 50 NG

Continued	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Styrene	56	ug/L	50	112%
Bromoform	35	ug/L	50	70%
Isopropylbenzene	54	ug/L	50	108%
Bromobenzene	52	ug/L	50	104%
1,1,2,2-Tetrachloroethane	40	ug/L	50	80%
1,2,3-Trichloropropane	42	ug/L	50	84%
n-Propylbenzene	53	ug/L	50	106%
2-Chlorotoluene	53	ug/L	50	106%
4-Chlorotoluene	52	ug/L	50	104%
1,3,5-Trimethylbenzene	52	ug/L	50	104%
tert-Butylbenzene	52	ug/L	50	104%
1,2,4-Trimethylbenzene	52	ug/L	50	104%
sec-Butylbenzene	54	ug/L	50	108%
1,3-Dichlorobenzene	52	ug/L	50	104%
p-Isopropyltoluene	53	ug/L	50	106%
1,4-Dichlorobenzene	51	ug/L	50	102%
1,2-Dichlorobenzene	51	ug/L	50	102%
n-Butylbenzene	54	ug/L	50	108%
1,2-Dibromo-3-chloropropane	35	ug/L	50	70%
1,2,4-Trichlorobenzene	55	ug/L	50	110%
Hexachlorobutadiene	67	ug/L	50	134%
1,2,3-Trichlorobenzene	55	ug/L	50	110%
Acrylonitrite		ug/L	50	0%
Hexachloroethane		ug/L	50	0%
Methyl iodine		ug/L	50	0%
Methyl 4,-2-Propanone (MIBK)	43	ug/L	50	86%
Acetone	42	ug/L	50	84%
Butanone 2- (MEK)	38	ug/L	50	76%
Carbon Disulfide	43	ug/L	50	86%
Diethyl ether	41	ug/L	50	82%
Hexanone, 2-	39	ug/L	50	78%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	49	ug/L	50	98%
1,2-Dichloroethane d4	49	ug/L	50	98%
Toluene d8	57	ug/L	50	114%
Bromofluorobenzene	53	ug/L	50	106%

% Solids	
Dilution Factor	1
Soil Weight Preserved	
MeOH Volume	

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4640
Analysis Date: 23-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: CCV @ 50 NG
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	59	ug/L	50	118%
Chloromethane	64	ug/L	50	128%
Vinyl chloride	44	ug/L	50	88%
Bromomethane	40	ug/L	50	80%
Trichlorofluoromenthane	40	ug/L	50	80%
Chloroethane	17	ug/L	50	34%
1,1-Dichloroethene	50	ug/L	50	100%
Methylene chloride	50	ug/L	50	100%
trans-1,2-Dichloroethene	54	ug/L	50	108%
MTBE	62	ug/L	50	124%
1,1-Dichloroethane	57	ug/L	50	114%
2,2-Dichloropropane	22	ug/L	50	44%
cis-1,2-Dichloroethene	41	ug/L	50	82%
Bromochloromethane	31	ug/L	50	62%
Chloroform	42	ug/L	50	84%
1,1,1-Trichloroethane	47	ug/L	50	94%
Carbon tetrachloride	37	ug/L	50	74%
1,1-Dichloropropene	46	ug/L	50	92%
Benzene	42	ug/L	50	84%
1,2-Dichloroethane	42	ug/L	50	84%
Trichloroethene	51	ug/L	50	102%
1,2-Dichloropropane	46	ug/L	50	92%
Dibromomethane	40	ug/L	50	80%
Bromodichloromethane	40	ug/L	50	80%
cis-1,3-Dichloropropene	41	ug/L	50	82%
Toluene	51	ug/L	50	102%
trans-1,3-Dichloropropene	39	ug/L	50	78%
1,1,2-Trichloroethane	48	ug/L	50	96%
Tetrachloroethene	51	ug/L	50	102%
1,3-Dichloropropane	49	ug/L	50	98%
Dibromochloromethane	37	ug/L	50	74%
1,2-Dibromoethane	41	ug/L	50	82%
Chlorobenzene	50	ug/L	50	100%
1,1,1,2-Tetrachlorethane	43	ug/L	50	86%
Ethylbenzene	54	ug/L	50	108%
m & p-Xylene	110	ug/L	100	110%
o-Xylene	55	ug/L	50	110%

Continued

New Age/Landmark
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Sample ID: CCV @ 50 NG

Continued	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Styrene	56	ug/L	50	112%
Bromoform	35	ug/L	50	70%
Isopropylbenzene	57	ug/L	50	114%
Bromobenzene	51	ug/L	50	102%
1,1,2,2-Tetrachloroethane	48	ug/L	50	96%
1,2,3-Trichloropropane	53	ug/L	50	106%
n-Propylbenzene	57	ug/L	50	114%
2-Chlorotoluene	56	ug/L	50	112%
4-Chlorotoluene	56	ug/L	50	112%
1,3,5-Trimethylbenzene	56	ug/L	50	112%
tert-Butylbenzene	51	ug/L	50	102%
1,2,4-Trimethylbenzene	53	ug/L	50	106%
sec-Butylbenzene	56	ug/L	50	112%
1,3-Dichlorobenzene	49	ug/L	50	98%
p-Isopropyltoluene	53	ug/L	50	106%
1,4-Dichlorobenzene	49	ug/L	50	98%
1,2-Dichlorobenzene	49	ug/L	50	98%
n-Butylbenzene	55	ug/L	50	110%
1,2-Dibromo-3-chloropropane	36	ug/L	50	72%
1,2,4-Trichlorobenzene	39	ug/L	50	78%
Hexachlorobutadiene	46	ug/L	50	92%
1,2,3-Trichlorobenzene	36	ug/L	50	72%
Acrylonitrite		ug/L	50	0%
Hexachloroethane		ug/L	50	0%
Methyl iodine		ug/L	50	0%
Methyl 4,-2-Propanone (MIBK)	50	ug/L	50	100%
Acetone	63	ug/L	50	126%
Butanone 2- (MEK)	48	ug/L	50	96%
Carbon Disulfide	47	ug/L	50	94%
Diethyl ether	59	ug/L	50	118%
Hexanone, 2-	60	ug/L	50	120%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	40	ug/L	50	80%
1,2-Dichloroethane d4	42	ug/L	50	84%
Toluene d8	50	ug/L	50	100%
Bromofluorobenzene	49	ug/L	50	98%

% Solids	
Dilution Factor	1
Soil Weight Preserved	
MeOH Volume	

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4618
Analysis Date: 23-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: **Method Blank**
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

New Age/Landmark
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Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: Method Blank

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	50	ug/Kg	50	100%
1,2-Dichloroethane d4	53	ug/Kg	50	106%
Toluene d8	59	ug/Kg	50	118%
Bromofluorobenzene	58	ug/Kg	50	116%

% Solids	100.00%
Dilution Factor	50
Soil Weight Preserved	10.00
MeOH Volume	10

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4641
Analysis Date: 23-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: **Method Blank**
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	400	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: Method Blank

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	45	ug/Kg	50	90%
1,2-Dichloroethane d4	41	ug/Kg	50	82%
Toluene d8	60	ug/Kg	50	120%
Bromofluorobenzene	50	ug/Kg	50	100%

% Solids	100.00%
Dilution Factor	50
Soil Weight Preserved	10.00
MeOH Volume	10

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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ATTN: Mr. Craig Savage

Data file: NALA4650
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-32 (1213')
Lab ID: 00125-22
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	275
Chloromethane	92 J	ug/Kg	275
Vinyl chloride	ND	ug/Kg	110
Bromomethane	ND	ug/Kg	275
Trichlorofluoromenthane	ND	ug/Kg	275
Chloroethane	ND	ug/Kg	275
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	38 J	ug/Kg	275
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	275
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	110
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	13 J	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	110
Bromodichloromethane	ND	ug/Kg	110
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	110
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	110
Ethylbenzene	19 J	ug/Kg	55
m & p-Xylene	81 J	ug/Kg	110
o-Xylene	27 J	ug/Kg	55

Continued

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Sample ID: PB-01-32 (1213')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	110
Isopropylbenzene	ND	ug/Kg	110
Bromobenzene	ND	ug/Kg	110
1,1,2,2-Tetrachloroethane	ND	ug/Kg	110
1,2,3-Trichloropropane	ND	ug/Kg	110
n-Propylbenzene	21 J	ug/Kg	110
2-Chlorotoluene	ND	ug/Kg	110
4-Chlorotoluene	13 J	ug/Kg	110
1,3,5-Trimethylbenzene	66 J	ug/Kg	110
tert-Butylbenzene	ND	ug/Kg	110
1,2,4-Trimethylbenzene	270	ug/Kg	110
sec-Butylbenzene	21 J	ug/Kg	110
1,3-Dichlorobenzene	ND	ug/Kg	110
p-Isopropyltoluene	35 J	ug/Kg	110
1,4-Dichlorobenzene	ND	ug/Kg	110
1,2-Dichlorobenzene	ND	ug/Kg	110
n-Butylbenzene	95 J	ug/Kg	110
1,2-Dibromo-3-chloropropane	ND	ug/Kg	275
1,2,4-Trichlorobenzene	14 J	ug/Kg	275
Hexachlorobutadiene	ND	ug/Kg	275
1,2,3-Trichlorobenzene	ND	ug/Kg	275
Acrylonitrite	ND	ug/Kg	275
Hexachloroethane	ND	ug/Kg	110
Methyl iodine	ND	ug/Kg	110
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	275
Acetone	390 J	ug/Kg	1375
Butanone 2- (MEK)	230 J	ug/Kg	275
Carbon Disulfide	ND	ug/Kg	275
Diethyl ether	ND	ug/Kg	550
Hexanone, 2-	ND	ug/Kg	275

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	50		50	100%
1,2-Dichloroethane d4	64		50	128%
Toluene d8	55		50	110%
Bromofluorobenzene	62		50	124%

% Solids	90.90%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4651
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: **PB-01-32 (6-7')**
Lab ID: **00125-23**
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	2665
Chloromethane	ND	ug/Kg	2665
Vinyl chloride	ND	ug/Kg	1066
Bromomethane	ND	ug/Kg	2665
Trichlorofluoromenthane	ND	ug/Kg	2665
Chloroethane	ND	ug/Kg	2665
1,1-Dichloroethene	ND	ug/Kg	533
Methylene chloride	ND	ug/Kg	2665
trans-1,2-Dichloroethene	ND	ug/Kg	533
MTBE	ND	ug/Kg	2665
1,1-Dichloroethane	ND	ug/Kg	533
2,2-Dichloropropane	ND	ug/Kg	533
cis-1,2-Dichloroethene	ND	ug/Kg	533
Bromochloromethane	ND	ug/Kg	1066
Chloroform	ND	ug/Kg	533
1,1,1-Trichloroethane	ND	ug/Kg	533
Carbon tetrachloride	ND	ug/Kg	533
1,1-Dichloropropene	ND	ug/Kg	533
Benzene	ND	ug/Kg	533
1,2-Dichloroethane	ND	ug/Kg	533
Trichloroethene	ND	ug/Kg	533
1,2-Dichloropropane	ND	ug/Kg	533
Dibromomethane	ND	ug/Kg	1066
Bromodichloromethane	ND	ug/Kg	1066
cis-1,3-Dichloropropene	ND	ug/Kg	533
Toluene	5200D	ug/Kg	533
trans-1,3-Dichloropropene	ND	ug/Kg	533
1,1,2-Trichloroethane	ND	ug/Kg	533
Tetrachloroethene	ND	ug/Kg	533
1,3-Dichloropropane	ND	ug/Kg	533
Dibromochloromethane	ND	ug/Kg	1066
1,2-Dibromoethane	ND	ug/Kg	533
Chlorobenzene	ND	ug/Kg	533
1,1,1,2-Tetrachlorethane	ND	ug/Kg	1066
Ethylbenzene	66000D	ug/Kg	533
m & p-Xylene	230000D E	ug/Kg	1066
o-Xylene	67000D	ug/Kg	533

Continued

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Sample ID: PB-01-32 (6-7')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	2000D	ug/Kg	533
Bromoform	ND	ug/Kg	1066
Isopropylbenzene	10000D	ug/Kg	1066
Bromobenzene	ND	ug/Kg	1066
1,1,2,2-Tetrachloroethane	ND	ug/Kg	1066
1,2,3-Trichloropropane	1100D	ug/Kg	1066
n-Propylbenzene	32000D	ug/Kg	1066
2-Chlorotoluene	ND	ug/Kg	1066
4-Chlorotoluene	ND	ug/Kg	1066
1,3,5-Trimethylbenzene	81000D	ug/Kg	1066
tert-Butylbenzene	ND	ug/Kg	1066
1,2,4-Trimethylbenzene	260000D E	ug/Kg	1066
sec-Butylbenzene	24000D	ug/Kg	1066
1,3-Dichlorobenzene	ND	ug/Kg	1066
p-Isopropyltoluene	ND	ug/Kg	1066
1,4-Dichlorobenzene	ND	ug/Kg	1066
1,2-Dichlorobenzene	ND	ug/Kg	1066
n-Butylbenzene	80000D	ug/Kg	1066
1,2-Dibromo-3-chloropropane	ND	ug/Kg	2665
1,2,4-Trichlorobenzene	ND	ug/Kg	2665
Hexachlorobutadiene	ND	ug/Kg	2665
1,2,3-Trichlorobenzene	ND	ug/Kg	2665
Acrylonitrite	ND	ug/Kg	2665
Hexachloroethane	ND	ug/Kg	1066
Methyl iodine	ND	ug/Kg	1066
Methyl 4,-2-Propanone (MIBK)	7000D	ug/Kg	2665
Acetone	ND	ug/Kg	13326
Butanone 2- (MEK)	ND	ug/Kg	2665
Carbon Disulfide	ND	ug/Kg	2665
Diethyl ether	ND	ug/Kg	5330
Hexanone, 2-	ND	ug/Kg	2665

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	48	50	96%
1,2-Dichloroethane d4	63	50	126%
Toluene d8	48	50	96%
Bromofluorobenzene	54	50	108%

% Solids	93.80%	
Dilution Factor	500	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4652
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-32 (8-9')
Lab ID: 00125-24
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	2691
Chloromethane	ND	ug/Kg	2691
Vinyl chloride	ND	ug/Kg	1076
Bromomethane	ND	ug/Kg	2691
Trichlorofluoromenthane	ND	ug/Kg	2691
Chloroethane	ND	ug/Kg	2691
1,1-Dichloroethene	ND	ug/Kg	538
Methylene chloride	ND	ug/Kg	2691
trans-1,2-Dichloroethene	ND	ug/Kg	538
MTBE	ND	ug/Kg	2691
1,1-Dichloroethane	ND	ug/Kg	538
2,2-Dichloropropane	ND	ug/Kg	538
cis-1,2-Dichloroethene	ND	ug/Kg	538
Bromochloromethane	ND	ug/Kg	1076
Chloroform	ND	ug/Kg	538
1,1,1-Trichloroethane	ND	ug/Kg	538
Carbon tetrachloride	ND	ug/Kg	538
1,1-Dichloropropene	ND	ug/Kg	538
Benzene	ND	ug/Kg	538
1,2-Dichloroethane	ND	ug/Kg	538
Trichloroethene	ND	ug/Kg	538
1,2-Dichloropropane	ND	ug/Kg	538
Dibromomethane	ND	ug/Kg	1076
Bromodichloromethane	ND	ug/Kg	1076
cis-1,3-Dichloropropene	ND	ug/Kg	538
Toluene	1800D	ug/Kg	538
trans-1,3-Dichloropropene	ND	ug/Kg	538
1,1,2-Trichloroethane	ND	ug/Kg	538
Tetrachloroethene	ND	ug/Kg	538
1,3-Dichloropropane	ND	ug/Kg	538
Dibromochloromethane	ND	ug/Kg	1076
1,2-Dibromoethane	ND	ug/Kg	538
Chlorobenzene	ND	ug/Kg	538
1,1,1,2-Tetrachlorethane	ND	ug/Kg	1076
Ethylbenzene	24000D	ug/Kg	538
m & p-Xylene	94000D	ug/Kg	1076
o-Xylene	28000D	ug/Kg	538

Continued

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Sample ID: PB-01-32 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	890D	ug/Kg	538
Bromoform	ND	ug/Kg	1076
Isopropylbenzene	3900D	ug/Kg	1076
Bromobenzene	ND	ug/Kg	1076
1,1,2,2-Tetrachloroethane	ND	ug/Kg	1076
1,2,3-Trichloropropane	ND	ug/Kg	1076
n-Propylbenzene	11000D	ug/Kg	1076
2-Chlorotoluene	ND	ug/Kg	1076
4-Chlorotoluene	ND	ug/Kg	1076
1,3,5-Trimethylbenzene	28000D	ug/Kg	1076
tert-Butylbenzene	ND	ug/Kg	1076
1,2,4-Trimethylbenzene	95000D	ug/Kg	1076
sec-Butylbenzene	7900D	ug/Kg	1076
1,3-Dichlorobenzene	ND	ug/Kg	1076
p-Isopropyltoluene	ND	ug/Kg	1076
1,4-Dichlorobenzene	ND	ug/Kg	1076
1,2-Dichlorobenzene	ND	ug/Kg	1076
n-Butylbenzene	25000D	ug/Kg	1076
1,2-Dibromo-3-chloropropane	ND	ug/Kg	2691
1,2,4-Trichlorobenzene	ND	ug/Kg	2691
Hexachlorobutadiene	ND	ug/Kg	2691
1,2,3-Trichlorobenzene	ND	ug/Kg	2691
Acrylonitrite	ND	ug/Kg	2691
Hexachloroethane	ND	ug/Kg	1076
Methyl iodine	ND	ug/Kg	1076
Methyl 4,-2-Propanone (MIBK)	3500D	ug/Kg	2691
Acetone	ND	ug/Kg	13455
Butanone 2- (MEK)	ND	ug/Kg	2691
Carbon Disulfide	ND	ug/Kg	2691
Diethyl ether	ND	ug/Kg	5382
Hexanone, 2-	ND	ug/Kg	2691

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	43	50	86%
1,2-Dichloroethane d4	61	50	122%
Toluene d8	49	50	98%
Bromofluorobenzene	64	50	128%

% Solids	92.90%	
Dilution Factor	500	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4654
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: **PB-01-34 (25-26')**
Lab ID: **00125-26**
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	25 J	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	13 J	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	26 J	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	22 J	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	40 J	ug/Kg	50
m & p-Xylene	120	ug/Kg	100
o-Xylene	34 J	ug/Kg	50

Continued

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Sample ID: PB-01-34 (25-26')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	22 J	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	26 J	ug/Kg	100
Bromobenzene	21 J	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	32 J	ug/Kg	100
2-Chlorotoluene	28 J	ug/Kg	100
4-Chlorotoluene	36 J	ug/Kg	100
1,3,5-Trimethylbenzene	46 J	ug/Kg	100
tert-Butylbenzene	20 J	ug/Kg	100
1,2,4-Trimethylbenzene	96 J	ug/Kg	100
sec-Butylbenzene	33 J	ug/Kg	100
1,3-Dichlorobenzene	34 J	ug/Kg	100
p-Isopropyltoluene	41 J	ug/Kg	100
1,4-Dichlorobenzene	33 J	ug/Kg	100
1,2-Dichlorobenzene	34 J	ug/Kg	100
n-Butylbenzene	57 J	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	64 J	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	64 J	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	320 J	ug/Kg	1250
Butanone 2- (MEK)	180 J	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	52		50	104%
1,2-Dichloroethane d4	69X		50	#VALUE!
Toluene d8	46		50	92%
Bromofluorobenzene	58		50	116%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL
		X=1SURR HIGH

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4655
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: **PB-01-34 (21-22')**
Lab ID: **00125-27**
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	275
Chloromethane	ND	ug/Kg	275
Vinyl chloride	ND	ug/Kg	110
Bromomethane	ND	ug/Kg	275
Trichlorofluoromenthane	ND	ug/Kg	275
Chloroethane	ND	ug/Kg	275
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	24 J	ug/Kg	275
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	275
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	110
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	ND	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	110
Bromodichloromethane	ND	ug/Kg	110
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	110
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	110
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	ND	ug/Kg	110
o-Xylene	ND	ug/Kg	55

Continued

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Sample ID: PB-01-34 (21-22')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	110
Isopropylbenzene	ND	ug/Kg	110
Bromobenzene	ND	ug/Kg	110
1,1,2,2-Tetrachloroethane	ND	ug/Kg	110
1,2,3-Trichloropropane	ND	ug/Kg	110
n-Propylbenzene	6.1 J	ug/Kg	110
2-Chlorotoluene	ND	ug/Kg	110
4-Chlorotoluene	ND	ug/Kg	110
1,3,5-Trimethylbenzene	7.7 J	ug/Kg	110
tert-Butylbenzene	ND	ug/Kg	110
1,2,4-Trimethylbenzene	17 J	ug/Kg	110
sec-Butylbenzene	6.6 J	ug/Kg	110
1,3-Dichlorobenzene	ND	ug/Kg	110
p-Isopropyltoluene	7.2 J	ug/Kg	110
1,4-Dichlorobenzene	ND	ug/Kg	110
1,2-Dichlorobenzene	ND	ug/Kg	110
n-Butylbenzene	12 J	ug/Kg	110
1,2-Dibromo-3-chloropropane	ND	ug/Kg	275
1,2,4-Trichlorobenzene	12 J	ug/Kg	275
Hexachlorobutadiene	ND	ug/Kg	275
1,2,3-Trichlorobenzene	15 J	ug/Kg	275
Acrylonitrite	ND	ug/Kg	275
Hexachloroethane	ND	ug/Kg	110
Methyl iodine	ND	ug/Kg	110
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	275
Acetone	410 J	ug/Kg	1375
Butanone 2- (MEK)	140 J	ug/Kg	275
Carbon Disulfide	ND	ug/Kg	275
Diethyl ether	ND	ug/Kg	550
Hexanone, 2-	ND	ug/Kg	275

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	45	50	90%
1,2-Dichloroethane d4	64	50	128%
Toluene d8	51	50	102%
Bromofluorobenzene	60	50	120%

% Solids	90.90%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4662
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: **PB-01-32 (14-15')**
Lab ID: **01025-21**
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	273
Chloromethane	ND	ug/Kg	273
Vinyl chloride	ND	ug/Kg	109
Bromomethane	ND	ug/Kg	273
Trichlorofluoromenthane	ND	ug/Kg	273
Chloroethane	ND	ug/Kg	273
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	ND	ug/Kg	273
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	273
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	109
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	ND	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	109
Bromodichloromethane	ND	ug/Kg	109
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	109
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	109
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	ND	ug/Kg	109
o-Xylene	ND	ug/Kg	55

Continued

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Sample ID: PB-01-32 (14-15')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	109
Isopropylbenzene	ND	ug/Kg	109
Bromobenzene	ND	ug/Kg	109
1,1,2,2-Tetrachloroethane	ND	ug/Kg	109
1,2,3-Trichloropropane	ND	ug/Kg	109
n-Propylbenzene	ND	ug/Kg	109
2-Chlorotoluene	ND	ug/Kg	109
4-Chlorotoluene	ND	ug/Kg	109
1,3,5-Trimethylbenzene	ND	ug/Kg	109
tert-Butylbenzene	ND	ug/Kg	109
1,2,4-Trimethylbenzene	270	ug/Kg	109
sec-Butylbenzene	ND	ug/Kg	109
1,3-Dichlorobenzene	ND	ug/Kg	109
p-Isopropyltoluene	ND	ug/Kg	109
1,4-Dichlorobenzene	ND	ug/Kg	109
1,2-Dichlorobenzene	ND	ug/Kg	109
n-Butylbenzene	ND	ug/Kg	109
1,2-Dibromo-3-chloropropane	ND	ug/Kg	273
1,2,4-Trichlorobenzene	ND	ug/Kg	273
Hexachlorobutadiene	ND	ug/Kg	273
1,2,3-Trichlorobenzene	ND	ug/Kg	273
Acrylonitrite	ND	ug/Kg	273
Hexachloroethane	ND	ug/Kg	109
Methyl iodine	ND	ug/Kg	109
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	273
Acetone	ND	ug/Kg	1365
Butanone 2- (MEK)	ND	ug/Kg	273
Carbon Disulfide	ND	ug/Kg	273
Diethyl ether	ND	ug/Kg	546
Hexanone, 2-	ND	ug/Kg	273

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	44	50	88%
1,2-Dichloroethane d4	55	50	110%
Toluene d8	50	50	100%
Bromofluorobenzene	63	50	126%

% Solids	91.60%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4663
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: **PB-01-34 (8-9')**
Lab ID: **00125-25**
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	278
Chloromethane	ND	ug/Kg	278
Vinyl chloride	ND	ug/Kg	111
Bromomethane	ND	ug/Kg	278
Trichlorofluoromenthane	ND	ug/Kg	278
Chloroethane	ND	ug/Kg	278
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	ND	ug/Kg	278
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	278
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	111
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	ND	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	111
Bromodichloromethane	ND	ug/Kg	111
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	111
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	111
Ethylbenzene	ND	ug/Kg	56
m & p-Xylene	ND	ug/Kg	111
o-Xylene	ND	ug/Kg	56

Continued

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Sample ID: PB-01-34 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	111
Isopropylbenzene	ND	ug/Kg	111
Bromobenzene	ND	ug/Kg	111
1,1,2,2-Tetrachloroethane	ND	ug/Kg	111
1,2,3-Trichloropropane	ND	ug/Kg	111
n-Propylbenzene	ND	ug/Kg	111
2-Chlorotoluene	ND	ug/Kg	111
4-Chlorotoluene	ND	ug/Kg	111
1,3,5-Trimethylbenzene	ND	ug/Kg	111
tert-Butylbenzene	ND	ug/Kg	111
1,2,4-Trimethylbenzene	440	ug/Kg	111
sec-Butylbenzene	320	ug/Kg	111
1,3-Dichlorobenzene	ND	ug/Kg	111
p-Isopropyltoluene	360	ug/Kg	111
1,4-Dichlorobenzene	ND	ug/Kg	111
1,2-Dichlorobenzene	ND	ug/Kg	111
n-Butylbenzene	ND	ug/Kg	111
1,2-Dibromo-3-chloropropane	ND	ug/Kg	278
1,2,4-Trichlorobenzene	ND	ug/Kg	278
Hexachlorobutadiene	ND	ug/Kg	278
1,2,3-Trichlorobenzene	ND	ug/Kg	278
Acrylonitrite	ND	ug/Kg	278
Hexachloroethane	ND	ug/Kg	111
Methyl iodine	ND	ug/Kg	111
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	278
Acetone	ND	ug/Kg	1389
Butanone 2- (MEK)	ND	ug/Kg	278
Carbon Disulfide	ND	ug/Kg	278
Diethyl ether	ND	ug/Kg	556
Hexanone, 2-	ND	ug/Kg	278

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	44	50	88%
1,2-Dichloroethane d4	53	50	106%
Toluene d8	50	50	100%
Bromofluorobenzene	61	50	122%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4664
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-36 (4-5')
Lab ID: 00125-31
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	271
Chloromethane	ND	ug/Kg	271
Vinyl chloride	ND	ug/Kg	108
Bromomethane	ND	ug/Kg	271
Trichlorofluoromenthane	ND	ug/Kg	271
Chloroethane	ND	ug/Kg	271
1,1-Dichloroethene	ND	ug/Kg	54
Methylene chloride	ND	ug/Kg	271
trans-1,2-Dichloroethene	ND	ug/Kg	54
MTBE	ND	ug/Kg	271
1,1-Dichloroethane	ND	ug/Kg	54
2,2-Dichloropropane	ND	ug/Kg	54
cis-1,2-Dichloroethene	ND	ug/Kg	54
Bromochloromethane	ND	ug/Kg	108
Chloroform	ND	ug/Kg	54
1,1,1-Trichloroethane	ND	ug/Kg	54
Carbon tetrachloride	ND	ug/Kg	54
1,1-Dichloropropene	ND	ug/Kg	54
Benzene	ND	ug/Kg	54
1,2-Dichloroethane	ND	ug/Kg	54
Trichloroethene	ND	ug/Kg	54
1,2-Dichloropropane	ND	ug/Kg	54
Dibromomethane	ND	ug/Kg	108
Bromodichloromethane	ND	ug/Kg	108
cis-1,3-Dichloropropene	ND	ug/Kg	54
Toluene	ND	ug/Kg	54
trans-1,3-Dichloropropene	ND	ug/Kg	54
1,1,2-Trichloroethane	ND	ug/Kg	54
Tetrachloroethene	ND	ug/Kg	54
1,3-Dichloropropane	ND	ug/Kg	54
Dibromochloromethane	ND	ug/Kg	108
1,2-Dibromoethane	ND	ug/Kg	54
Chlorobenzene	ND	ug/Kg	54
1,1,1,2-Tetrachlorethane	ND	ug/Kg	108
Ethylbenzene	ND	ug/Kg	54
m & p-Xylene	ND	ug/Kg	108
o-Xylene	ND	ug/Kg	54

Continued

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Sample ID: PB-01-36 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	54
Bromoform	ND	ug/Kg	108
Isopropylbenzene	ND	ug/Kg	108
Bromobenzene	ND	ug/Kg	108
1,1,2,2-Tetrachloroethane	ND	ug/Kg	108
1,2,3-Trichloropropane	ND	ug/Kg	108
n-Propylbenzene	ND	ug/Kg	108
2-Chlorotoluene	ND	ug/Kg	108
4-Chlorotoluene	ND	ug/Kg	108
1,3,5-Trimethylbenzene	ND	ug/Kg	108
tert-Butylbenzene	ND	ug/Kg	108
1,2,4-Trimethylbenzene	ND	ug/Kg	108
sec-Butylbenzene	ND	ug/Kg	108
1,3-Dichlorobenzene	ND	ug/Kg	108
p-Isopropyltoluene	ND	ug/Kg	108
1,4-Dichlorobenzene	ND	ug/Kg	108
1,2-Dichlorobenzene	ND	ug/Kg	108
n-Butylbenzene	ND	ug/Kg	108
1,2-Dibromo-3-chloropropane	ND	ug/Kg	271
1,2,4-Trichlorobenzene	ND	ug/Kg	271
Hexachlorobutadiene	ND	ug/Kg	271
1,2,3-Trichlorobenzene	ND	ug/Kg	271
Acrylonitrite	ND	ug/Kg	271
Hexachloroethane	ND	ug/Kg	108
Methyl iodine	ND	ug/Kg	108
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	271
Acetone	ND	ug/Kg	1354
Butanone 2- (MEK)	ND	ug/Kg	271
Carbon Disulfide	ND	ug/Kg	271
Diethyl ether	ND	ug/Kg	542
Hexanone, 2-	ND	ug/Kg	271

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	42	50	84%
1,2-Dichloroethane d4	57	50	114%
Toluene d8	53	50	106%
Bromofluorobenzene	66X	50	#VALUE!

% Solids	92.30%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

X=1 HIGH SURR NO HITS

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4673
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-36 (8-9')
Lab ID: 00125-32
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromoehloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: PB-01-36 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	43	50	86%
1,2-Dichloroethane d4	54	50	108%
Toluene d8	53	50	106%
Bromofluorobenzene	57	50	114%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4674
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: **PB-01-36 (12-13')**
Lab ID: **00125-33**
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	273
Chloromethane	ND	ug/Kg	273
Vinyl chloride	ND	ug/Kg	109
Bromomethane	ND	ug/Kg	273
Trichlorofluoromenthane	ND	ug/Kg	273
Chloroethane	ND	ug/Kg	273
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	700	ug/Kg	273
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	273
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	109
Chloroform	56B	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	ND	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	109
Bromodichloromethane	ND	ug/Kg	109
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	109
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	109
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	ND	ug/Kg	109
o-Xylene	ND	ug/Kg	55

Continued

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Sample ID: PB-01-36 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	109
Isopropylbenzene	ND	ug/Kg	109
Bromobenzene	ND	ug/Kg	109
1,1,2,2-Tetrachloroethane	ND	ug/Kg	109
1,2,3-Trichloropropane	ND	ug/Kg	109
n-Propylbenzene	ND	ug/Kg	109
2-Chlorotoluene	ND	ug/Kg	109
4-Chlorotoluene	ND	ug/Kg	109
1,3,5-Trimethylbenzene	ND	ug/Kg	109
tert-Butylbenzene	ND	ug/Kg	109
1,2,4-Trimethylbenzene	ND	ug/Kg	109
sec-Butylbenzene	ND	ug/Kg	109
1,3-Dichlorobenzene	ND	ug/Kg	109
p-Isopropyltoluene	ND	ug/Kg	109
1,4-Dichlorobenzene	ND	ug/Kg	109
1,2-Dichlorobenzene	ND	ug/Kg	109
n-Butylbenzene	ND	ug/Kg	109
1,2-Dibromo-3-chloropropane	ND	ug/Kg	273
1,2,4-Trichlorobenzene	ND	ug/Kg	273
Hexachlorobutadiene	ND	ug/Kg	273
1,2,3-Trichlorobenzene	ND	ug/Kg	273
Acrylonitrite	ND	ug/Kg	273
Hexachloroethane	ND	ug/Kg	109
Methyl iodine	ND	ug/Kg	109
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	273
Acetone	ND	ug/Kg	1363
Butanone 2- (MEK)	ND	ug/Kg	273
Carbon Disulfide	ND	ug/Kg	273
Diethyl ether	ND	ug/Kg	545
Hexanone, 2-	ND	ug/Kg	273

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	41	50	82%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	50	50	100%
Bromofluorobenzene	57	50	114%

% Solids	91.70%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4675
Analysis Date: 25-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-37 (4-5')
Lab ID: 00125-34
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	275
Chloromethane	ND	ug/Kg	275
Vinyl chloride	ND	ug/Kg	110
Bromomethane	ND	ug/Kg	275
Trichlorofluoromenthane	ND	ug/Kg	275
Chloroethane	ND	ug/Kg	275
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	ND	ug/Kg	275
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	275
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	110
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	ND	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	110
Bromodichloromethane	ND	ug/Kg	110
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	110
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	110
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	ND	ug/Kg	110
o-Xylene	ND	ug/Kg	55

Continued

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Sample ID: PB-01-37 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	110
Isopropylbenzene	ND	ug/Kg	110
Bromobenzene	ND	ug/Kg	110
1,1,2,2-Tetrachloroethane	ND	ug/Kg	110
1,2,3-Trichloropropane	ND	ug/Kg	110
n-Propylbenzene	ND	ug/Kg	110
2-Chlorotoluene	ND	ug/Kg	110
4-Chlorotoluene	ND	ug/Kg	110
1,3,5-Trimethylbenzene	ND	ug/Kg	110
tert-Butylbenzene	ND	ug/Kg	110
1,2,4-Trimethylbenzene	ND	ug/Kg	110
sec-Butylbenzene	ND	ug/Kg	110
1,3-Dichlorobenzene	ND	ug/Kg	110
p-Isopropyltoluene	ND	ug/Kg	110
1,4-Dichlorobenzene	ND	ug/Kg	110
1,2-Dichlorobenzene	ND	ug/Kg	110
n-Butylbenzene	ND	ug/Kg	110
1,2-Dibromo-3-chloropropane	ND	ug/Kg	275
1,2,4-Trichlorobenzene	ND	ug/Kg	275
Hexachlorobutadiene	ND	ug/Kg	275
1,2,3-Trichlorobenzene	ND	ug/Kg	275
Acrylonitrite	ND	ug/Kg	275
Hexachloroethane	ND	ug/Kg	275
Methyl iodine	ND	ug/Kg	110
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	110
Acetone	ND	ug/Kg	275
Butanone 2- (MEK)	ND	ug/Kg	1375
Carbon Disulfide	ND	ug/Kg	275
Diethyl ether	ND	ug/Kg	275
Hexanone, 2-	ND	ug/Kg	550

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	42	50	84%
1,2-Dichloroethane d4	53	50	106%
Toluene d8	54	50	108%
Bromofluorobenzene	56	50	112%

% Solids	90.90%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4676
Analysis Date: 25-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-37 (8-9')
Lab ID: 00125-35
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	306
Chloromethane	ND	ug/Kg	306
Vinyl chloride	ND	ug/Kg	122
Bromomethane	ND	ug/Kg	306
Trichlorofluoromenthane	ND	ug/Kg	306
Chloroethane	ND	ug/Kg	306
1,1-Dichloroethene	ND	ug/Kg	61
Methylene chloride	ND	ug/Kg	306
trans-1,2-Dichloroethene	ND	ug/Kg	61
MTBE	ND	ug/Kg	306
1,1-Dichloroethane	ND	ug/Kg	61
2,2-Dichloropropane	ND	ug/Kg	61
cis-1,2-Dichloroethene	ND	ug/Kg	61
Bromochloromethane	ND	ug/Kg	122
Chloroform	ND	ug/Kg	61
1,1,1-Trichloroethane	ND	ug/Kg	61
Carbon tetrachloride	ND	ug/Kg	61
1,1-Dichloropropene	ND	ug/Kg	61
Benzene	ND	ug/Kg	61
1,2-Dichloroethane	ND	ug/Kg	61
Trichloroethene	ND	ug/Kg	61
1,2-Dichloropropane	ND	ug/Kg	61
Dibromomethane	ND	ug/Kg	122
Bromodichloromethane	ND	ug/Kg	122
cis-1,3-Dichloropropene	ND	ug/Kg	61
Toluene	ND	ug/Kg	61
trans-1,3-Dichloropropene	ND	ug/Kg	61
1,1,2-Trichloroethane	ND	ug/Kg	61
Tetrachloroethene	ND	ug/Kg	61
1,3-Dichloropropane	ND	ug/Kg	61
Dibromochloromethane	ND	ug/Kg	122
1,2-Dibromoethane	ND	ug/Kg	61
Chlorobenzene	ND	ug/Kg	61
1,1,1,2-Tetrachlorethane	ND	ug/Kg	122
Ethylbenzene	ND	ug/Kg	61
m & p-Xylene	ND	ug/Kg	122
o-Xylene	ND	ug/Kg	61

Continued

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Sample ID: PB-01-37 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	61
Bromoform	ND	ug/Kg	122
Isopropylbenzene	ND	ug/Kg	122
Bromobenzene	ND	ug/Kg	122
1,1,2,2-Tetrachloroethane	ND	ug/Kg	122
1,2,3-Trichloropropane	ND	ug/Kg	122
n-Propylbenzene	ND	ug/Kg	122
2-Chlorotoluene	ND	ug/Kg	122
4-Chlorotoluene	ND	ug/Kg	122
1,3,5-Trimethylbenzene	ND	ug/Kg	122
tert-Butylbenzene	ND	ug/Kg	122
1,2,4-Trimethylbenzene	ND	ug/Kg	122
sec-Butylbenzene	ND	ug/Kg	122
1,3-Dichlorobenzene	ND	ug/Kg	122
p-Isopropyltoluene	ND	ug/Kg	122
1,4-Dichlorobenzene	ND	ug/Kg	122
1,2-Dichlorobenzene	ND	ug/Kg	122
n-Butylbenzene	ND	ug/Kg	122
1,2-Dibromo-3-chloropropane	ND	ug/Kg	306
1,2,4-Trichlorobenzene	ND	ug/Kg	306
Hexachlorobutadiene	ND	ug/Kg	306
1,2,3-Trichlorobenzene	ND	ug/Kg	306
Acrylonitrite	ND	ug/Kg	306
Hexachloroethane	ND	ug/Kg	122
Methyl iodine	ND	ug/Kg	122
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	306
Acetone	ND	ug/Kg	1528
Butanone 2- (MEK)	ND	ug/Kg	306
Carbon Disulfide	ND	ug/Kg	306
Diethyl ether	ND	ug/Kg	611
Hexanone, 2-	ND	ug/Kg	306

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	43	50	86%
1,2-Dichloroethane d4	55	50	110%
Toluene d8	48	50	96%
Bromofluorobenzene	58	50	116%

% Solids	81.80%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4677
Analysis Date: 25-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-37 (12-13')
Lab ID: 00125-36
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	292
Chloromethane	ND	ug/Kg	292
Vinyl chloride	ND	ug/Kg	117
Bromomethane	ND	ug/Kg	292
Trichlorofluoromenthane	ND	ug/Kg	292
Chloroethane	ND	ug/Kg	292
1,1-Dichloroethene	ND	ug/Kg	58
Methylene chloride	ND	ug/Kg	292
trans-1,2-Dichloroethene	ND	ug/Kg	58
MTBE	ND	ug/Kg	292
1,1-Dichloroethane	ND	ug/Kg	58
2,2-Dichloropropane	ND	ug/Kg	58
cis-1,2-Dichloroethene	ND	ug/Kg	58
Bromochloromethane	ND	ug/Kg	117
Chloroform	ND	ug/Kg	58
1,1,1-Trichloroethane	ND	ug/Kg	58
Carbon tetrachloride	ND	ug/Kg	58
1,1-Dichloropropene	ND	ug/Kg	58
Benzene	ND	ug/Kg	58
1,2-Dichloroethane	ND	ug/Kg	58
Trichloroethene	ND	ug/Kg	58
1,2-Dichloropropane	ND	ug/Kg	58
Dibromomethane	ND	ug/Kg	117
Bromodichloromethane	ND	ug/Kg	117
cis-1,3-Dichloropropene	ND	ug/Kg	58
Toluene	ND	ug/Kg	58
trans-1,3-Dichloropropene	ND	ug/Kg	58
1,1,2-Trichloroethane	ND	ug/Kg	58
Tetrachloroethene	ND	ug/Kg	58
1,3-Dichloropropane	ND	ug/Kg	58
Dibromochloromethane	ND	ug/Kg	117
1,2-Dibromoethane	ND	ug/Kg	58
Chlorobenzene	ND	ug/Kg	58
1,1,1,2-Tetrachlorethane	ND	ug/Kg	117
Ethylbenzene	ND	ug/Kg	58
m & p-Xylene	ND	ug/Kg	117
o-Xylene	ND	ug/Kg	58

Continued

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Sample ID: PB-01-37 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	58
Bromoform	ND	ug/Kg	117
Isopropylbenzene	ND	ug/Kg	117
Bromobenzene	ND	ug/Kg	117
1,1,2,2-Tetrachloroethane	ND	ug/Kg	117
1,2,3-Trichloropropane	ND	ug/Kg	117
n-Propylbenzene	ND	ug/Kg	117
2-Chlorotoluene	ND	ug/Kg	117
4-Chlorotoluene	ND	ug/Kg	117
1,3,5-Trimethylbenzene	ND	ug/Kg	117
tert-Butylbenzene	ND	ug/Kg	117
1,2,4-Trimethylbenzene	ND	ug/Kg	117
sec-Butylbenzene	ND	ug/Kg	117
1,3-Dichlorobenzene	ND	ug/Kg	117
p-Isopropyltoluene	ND	ug/Kg	117
1,4-Dichlorobenzene	ND	ug/Kg	117
1,2-Dichlorobenzene	ND	ug/Kg	117
n-Butylbenzene	ND	ug/Kg	117
1,2-Dibromo-3-chloropropane	ND	ug/Kg	292
1,2,4-Trichlorobenzene	ND	ug/Kg	292
Hexachlorobutadiene	ND	ug/Kg	292
1,2,3-Trichlorobenzene	ND	ug/Kg	292
Acrylonitrite	ND	ug/Kg	292
Hexachloroethane	ND	ug/Kg	117
Methyl iodine	ND	ug/Kg	117
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	292
Acetone	ND	ug/Kg	1459
Butanone 2- (MEK)	ND	ug/Kg	292
Carbon Disulfide	ND	ug/Kg	292
Diethyl ether	ND	ug/Kg	583
Hexanone, 2-	ND	ug/Kg	292

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	41	50	82%
1,2-Dichloroethane d4	53	50	106%
Toluene d8	53	50	106%
Bromofluorobenzene	56	50	112%

% Solids	85.70%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4680
Analysis Date: 25-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-38 (7-8')
Lab ID: 00125-37
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	300	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	52B	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	1400	ug/Kg	50
m & p-Xylene	890	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

New Age/Landmark
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Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01-38 (7-8')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	220	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	42	50	84%
1,2-Dichloroethane d4	53	50	106%
Toluene d8	53	50	106%
Bromofluorobenzene	63	50	126%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4681
Analysis Date: 25-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: **PB-01-38 (11-12')**
Lab ID: **00125-38**
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	271
Chloromethane	ND	ug/Kg	271
Vinyl chloride	ND	ug/Kg	108
Bromomethane	ND	ug/Kg	271
Trichlorofluoromenthane	ND	ug/Kg	271
Chloroethane	ND	ug/Kg	271
1,1-Dichloroethene	ND	ug/Kg	54
Methylene chloride	ND	ug/Kg	271
trans-1,2-Dichloroethene	ND	ug/Kg	54
MTBE	ND	ug/Kg	271
1,1-Dichloroethane	ND	ug/Kg	54
2,2-Dichloropropane	ND	ug/Kg	54
cis-1,2-Dichloroethene	ND	ug/Kg	54
Bromochloromethane	ND	ug/Kg	108
Chloroform	ND	ug/Kg	54
1,1,1-Trichloroethane	ND	ug/Kg	54
Carbon tetrachloride	ND	ug/Kg	54
1,1-Dichloropropene	ND	ug/Kg	54
Benzene	ND	ug/Kg	54
1,2-Dichloroethane	ND	ug/Kg	54
Trichloroethene	ND	ug/Kg	54
1,2-Dichloropropane	ND	ug/Kg	54
Dibromomethane	ND	ug/Kg	108
Bromodichloromethane	ND	ug/Kg	108
cis-1,3-Dichloropropene	ND	ug/Kg	54
Toluene	ND	ug/Kg	54
trans-1,3-Dichloropropene	ND	ug/Kg	54
1,1,2-Trichloroethane	ND	ug/Kg	54
Tetrachloroethene	ND	ug/Kg	54
1,3-Dichloropropane	ND	ug/Kg	54
Dibromochloromethane	ND	ug/Kg	108
1,2-Dibromoethane	ND	ug/Kg	54
Chlorobenzene	ND	ug/Kg	54
1,1,1,2-Tetrachlorethane	ND	ug/Kg	108
Ethylbenzene	ND	ug/Kg	54
m & p-Xylene	ND	ug/Kg	108
o-Xylene	ND	ug/Kg	54

Continued

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Sample ID: PB-01-38 (11-12')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	54
Bromoform	ND	ug/Kg	108
Isopropylbenzene	ND	ug/Kg	108
Bromobenzene	ND	ug/Kg	108
1,1,2,2-Tetrachloroethane	ND	ug/Kg	108
1,2,3-Trichloropropane	ND	ug/Kg	108
n-Propylbenzene	ND	ug/Kg	108
2-Chlorotoluene	ND	ug/Kg	108
4-Chlorotoluene	ND	ug/Kg	108
1,3,5-Trimethylbenzene	ND	ug/Kg	108
tert-Butylbenzene	ND	ug/Kg	108
1,2,4-Trimethylbenzene	ND	ug/Kg	108
sec-Butylbenzene	ND	ug/Kg	108
1,3-Dichlorobenzene	ND	ug/Kg	108
p-Isopropyltoluene	ND	ug/Kg	108
1,4-Dichlorobenzene	ND	ug/Kg	108
1,2-Dichlorobenzene	ND	ug/Kg	108
n-Butylbenzene	ND	ug/Kg	108
1,2-Dibromo-3-chloropropane	ND	ug/Kg	271
1,2,4-Trichlorobenzene	ND	ug/Kg	271
Hexachlorobutadiene	ND	ug/Kg	271
1,2,3-Trichlorobenzene	ND	ug/Kg	271
Acrylonitrite	ND	ug/Kg	271
Hexachloroethane	ND	ug/Kg	108
Methyl iodine	ND	ug/Kg	108
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	271
Acetone	ND	ug/Kg	1354
Butanone 2- (MEK)	ND	ug/Kg	271
Carbon Disulfide	ND	ug/Kg	271
Diethyl ether	ND	ug/Kg	542
Hexanone, 2-	ND	ug/Kg	271

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	41	50	82%
1,2-Dichloroethane d4	55	50	110%
Toluene d8	50	50	100%
Bromofluorobenzene	56	50	112%

% Solids	92.30%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4682
Analysis Date: 25-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-38 (13-14')
Lab ID: 00125-39
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	275
Chloromethane	ND	ug/Kg	275
Vinyl chloride	ND	ug/Kg	110
Bromomethane	ND	ug/Kg	275
Trichlorofluoromenthane	ND	ug/Kg	275
Chloroethane	ND	ug/Kg	275
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	ND	ug/Kg	275
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	275
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	110
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	ND	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	110
Bromodichloromethane	ND	ug/Kg	110
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	110
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	110
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	ND	ug/Kg	110
o-Xylene	ND	ug/Kg	55

Continued

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Sample ID: PB-01-38 (13-14')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	110
Isopropylbenzene	ND	ug/Kg	110
Bromobenzene	ND	ug/Kg	110
1,1,2,2-Tetrachloroethane	ND	ug/Kg	110
1,2,3-Trichloropropane	ND	ug/Kg	110
n-Propylbenzene	ND	ug/Kg	110
2-Chlorotoluene	ND	ug/Kg	110
4-Chlorotoluene	ND	ug/Kg	110
1,3,5-Trimethylbenzene	ND	ug/Kg	110
tert-Butylbenzene	ND	ug/Kg	110
1,2,4-Trimethylbenzene	ND	ug/Kg	110
sec-Butylbenzene	ND	ug/Kg	110
1,3-Dichlorobenzene	ND	ug/Kg	110
p-Isopropyltoluene	ND	ug/Kg	110
1,4-Dichlorobenzene	ND	ug/Kg	110
1,2-Dichlorobenzene	ND	ug/Kg	110
n-Butylbenzene	ND	ug/Kg	110
1,2-Dibromo-3-chloropropane	ND	ug/Kg	275
1,2,4-Trichlorobenzene	ND	ug/Kg	275
Hexachlorobutadiene	ND	ug/Kg	275
1,2,3-Trichlorobenzene	ND	ug/Kg	275
Acrylonitrite	ND	ug/Kg	275
Hexachloroethane	ND	ug/Kg	110
Methyl iodine	ND	ug/Kg	110
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	275
Acetone	ND	ug/Kg	1375
Butanone 2- (MEK)	ND	ug/Kg	275
Carbon Disulfide	ND	ug/Kg	275
Diethyl ether	ND	ug/Kg	550
Hexanone, 2-	ND	ug/Kg	275

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	42	50	84%
1,2-Dichloroethane d4	54	50	108%
Toluene d8	53	50	106%
Bromofluorobenzene	59	50	118%

% Solids	90.90%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4683
Analysis Date: 25-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: **PB-01-39 (4-5')**
Lab ID: **00125-40**
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	275
Chloromethane	ND	ug/Kg	275
Vinyl chloride	ND	ug/Kg	110
Bromomethane	ND	ug/Kg	275
Trichlorofluoromenthane	ND	ug/Kg	275
Chloroethane	ND	ug/Kg	275
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	420	ug/Kg	275
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	275
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	110
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	ND	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	110
Bromodichloromethane	ND	ug/Kg	110
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	110
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	110
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	ND	ug/Kg	110
o-Xylene	ND	ug/Kg	55

Continued

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Sample ID: PB-01-39 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	110
Isopropylbenzene	ND	ug/Kg	110
Bromobenzene	ND	ug/Kg	110
1,1,2,2-Tetrachloroethane	ND	ug/Kg	110
1,2,3-Trichloropropane	ND	ug/Kg	110
n-Propylbenzene	ND	ug/Kg	110
2-Chlorotoluene	ND	ug/Kg	110
4-Chlorotoluene	ND	ug/Kg	110
1,3,5-Trimethylbenzene	ND	ug/Kg	110
tert-Butylbenzene	ND	ug/Kg	110
1,2,4-Trimethylbenzene	ND	ug/Kg	110
sec-Butylbenzene	ND	ug/Kg	110
1,3-Dichlorobenzene	ND	ug/Kg	110
p-Isopropyltoluene	ND	ug/Kg	110
1,4-Dichlorobenzene	ND	ug/Kg	110
1,2-Dichlorobenzene	ND	ug/Kg	110
n-Butylbenzene	ND	ug/Kg	110
1,2-Dibromo-3-chloropropane	ND	ug/Kg	275
1,2,4-Trichlorobenzene	ND	ug/Kg	275
Hexachlorobutadiene	ND	ug/Kg	275
1,2,3-Trichlorobenzene	ND	ug/Kg	275
Acrylonitrite	ND	ug/Kg	275
Hexachloroethane	ND	ug/Kg	110
Methyl iodine	ND	ug/Kg	110
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	275
Acetone	ND	ug/Kg	1375
Butanone 2- (MEK)	ND	ug/Kg	275
Carbon Disulfide	ND	ug/Kg	275
Diethyl ether	ND	ug/Kg	550
Hexanone, 2-	ND	ug/Kg	275

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	44	50	88%
1,2-Dichloroethane d4	57	50	114%
Toluene d8	51	50	102%
Bromofluorobenzene	61	50	122%

% Solids	90.90%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
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Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4684
Analysis Date: 25-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-39 (7-8')
Lab ID: 00125-41
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	292
Chloromethane	ND	ug/Kg	292
Vinyl chloride	ND	ug/Kg	117
Bromomethane	ND	ug/Kg	292
Trichlorofluoromenthane	ND	ug/Kg	292
Chloroethane	ND	ug/Kg	292
1,1-Dichloroethene	ND	ug/Kg	58
Methylene chloride	ND	ug/Kg	292
trans-1,2-Dichloroethene	ND	ug/Kg	58
MTBE	ND	ug/Kg	292
1,1-Dichloroethane	ND	ug/Kg	58
2,2-Dichloropropane	ND	ug/Kg	58
cis-1,2-Dichloroethene	ND	ug/Kg	58
Bromochloromethane	ND	ug/Kg	117
Chloroform	ND	ug/Kg	58
1,1,1-Trichloroethane	ND	ug/Kg	58
Carbon tetrachloride	ND	ug/Kg	58
1,1-Dichloropropene	ND	ug/Kg	58
Benzene	ND	ug/Kg	58
1,2-Dichloroethane	ND	ug/Kg	58
Trichloroethene	ND	ug/Kg	58
1,2-Dichloropropane	ND	ug/Kg	58
Dibromomethane	ND	ug/Kg	117
Bromodichloromethane	ND	ug/Kg	117
cis-1,3-Dichloropropene	ND	ug/Kg	58
Toluene	ND	ug/Kg	58
trans-1,3-Dichloropropene	ND	ug/Kg	58
1,1,2-Trichloroethane	ND	ug/Kg	58
Tetrachloroethene	ND	ug/Kg	58
1,3-Dichloropropane	ND	ug/Kg	58
Dibromochloromethane	ND	ug/Kg	117
1,2-Dibromoethane	ND	ug/Kg	58
Chlorobenzene	ND	ug/Kg	58
1,1,1,2-Tetrachlorethane	ND	ug/Kg	117
Ethylbenzene	ND	ug/Kg	58
m & p-Xylene	ND	ug/Kg	117
o-Xylene	ND	ug/Kg	58

Continued

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Sample ID: PB-01-39 (7-8')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	58
Bromoform	ND	ug/Kg	117
Isopropylbenzene	ND	ug/Kg	117
Bromobenzene	ND	ug/Kg	117
1,1,2,2-Tetrachloroethane	ND	ug/Kg	117
1,2,3-Trichloropropane	ND	ug/Kg	117
n-Propylbenzene	ND	ug/Kg	117
2-Chlorotoluene	ND	ug/Kg	117
4-Chlorotoluene	ND	ug/Kg	117
1,3,5-Trimethylbenzene	ND	ug/Kg	117
tert-Butylbenzene	ND	ug/Kg	117
1,2,4-Trimethylbenzene	ND	ug/Kg	117
sec-Butylbenzene	ND	ug/Kg	117
1,3-Dichlorobenzene	ND	ug/Kg	117
p-Isopropyltoluene	ND	ug/Kg	117
1,4-Dichlorobenzene	ND	ug/Kg	117
1,2-Dichlorobenzene	ND	ug/Kg	117
n-Butylbenzene	ND	ug/Kg	117
1,2-Dibromo-3-chloropropane	ND	ug/Kg	292
1,2,4-Trichlorobenzene	ND	ug/Kg	292
Hexachlorobutadiene	ND	ug/Kg	292
1,2,3-Trichlorobenzene	ND	ug/Kg	292
Acrylonitrite	ND	ug/Kg	292
Hexachloroethane	ND	ug/Kg	117
Methyl iodine	ND	ug/Kg	117
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	292
Acetone	ND	ug/Kg	1459
Butanone 2- (MEK)	ND	ug/Kg	292
Carbon Disulfide	ND	ug/Kg	292
Diethyl ether	ND	ug/Kg	583
Hexanone, 2-	ND	ug/Kg	292

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	42	50	84%
1,2-Dichloroethane d4	54	50	108%
Toluene d8	52	50	104%
Bromofluorobenzene	58	50	116%

% Solids	85.70%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
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Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4688
Analysis Date: 25-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: PB-01-49 (3-4')
Lab ID: 00125-76
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	357
Chloromethane	ND	ug/Kg	357
Vinyl chloride	ND	ug/Kg	143
Bromomethane	ND	ug/Kg	357
Trichlorofluoromenthane	ND	ug/Kg	357
Chloroethane	ND	ug/Kg	357
1,1-Dichloroethene	ND	ug/Kg	71
Methylene chloride	ND	ug/Kg	357
trans-1,2-Dichloroethene	ND	ug/Kg	71
MTBE	ND	ug/Kg	357
1,1-Dichloroethane	ND	ug/Kg	71
2,2-Dichloropropane	ND	ug/Kg	71
cis-1,2-Dichloroethene	ND	ug/Kg	71
Bromochloromethane	ND	ug/Kg	143
Chloroform	ND	ug/Kg	71
1,1,1-Trichloroethane	ND	ug/Kg	71
Carbon tetrachloride	ND	ug/Kg	71
1,1-Dichloropropene	ND	ug/Kg	71
Benzene	ND	ug/Kg	71
1,2-Dichloroethane	ND	ug/Kg	71
Trichloroethene	16 J	ug/Kg	71
1,2-Dichloropropane	ND	ug/Kg	71
Dibromomethane	ND	ug/Kg	143
Bromodichloromethane	ND	ug/Kg	143
cis-1,3-Dichloropropene	ND	ug/Kg	71
Toluene	ND	ug/Kg	71
trans-1,3-Dichloropropene	ND	ug/Kg	71
1,1,2-Trichloroethane	ND	ug/Kg	71
Tetrachloroethene	ND	ug/Kg	71
1,3-Dichloropropane	ND	ug/Kg	71
Dibromochloromethane	ND	ug/Kg	143
1,2-Dibromoethane	ND	ug/Kg	71
Chlorobenzene	ND	ug/Kg	71
1,1,1,2-Tetrachlorethane	ND	ug/Kg	143
Ethylbenzene	ND	ug/Kg	71
m & p-Xylene	ND	ug/Kg	143
o-Xylene	ND	ug/Kg	71

Continued

New Age/Landmark
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Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01-49 (3-4')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	71
Bromoform	ND	ug/Kg	143
Isopropylbenzene	ND	ug/Kg	143
Bromobenzene	ND	ug/Kg	143
1,1,2,2-Tetrachloroethane	ND	ug/Kg	143
1,2,3-Trichloropropane	ND	ug/Kg	143
n-Propylbenzene	ND	ug/Kg	143
2-Chlorotoluene	ND	ug/Kg	143
4-Chlorotoluene	ND	ug/Kg	143
1,3,5-Trimethylbenzene	ND	ug/Kg	143
tert-Butylbenzene	ND	ug/Kg	143
1,2,4-Trimethylbenzene	ND	ug/Kg	143
sec-Butylbenzene	ND	ug/Kg	143
1,3-Dichlorobenzene	ND	ug/Kg	143
p-Isopropyltoluene	ND	ug/Kg	143
1,4-Dichlorobenzene	ND	ug/Kg	143
1,2-Dichlorobenzene	ND	ug/Kg	143
n-Butylbenzene	ND	ug/Kg	143
1,2-Dibromo-3-chloropropane	ND	ug/Kg	357
1,2,4-Trichlorobenzene	50 J	ug/Kg	357
Hexachlorobutadiene	55 J	ug/Kg	357
1,2,3-Trichlorobenzene	66 J	ug/Kg	357
Acrylonitrite	ND	ug/Kg	357
Hexachloroethane	ND	ug/Kg	143
Methyl iodine	ND	ug/Kg	143
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	357
Acetone	340 J	ug/Kg	1786
Butanone 2- (MEK)	240 J	ug/Kg	357
Carbon Disulfide	ND	ug/Kg	357
Diethyl ether	ND	ug/Kg	714
Hexanone, 2-	ND	ug/Kg	357

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	49		50	98%
1,2-Dichloroethane d4	51		50	102%
Toluene d8	49		50	98%
Bromofluorobenzene	61		50	122%

% Solids	70.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4689
Analysis Date: 25-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01-49 (7-8')**
Lab ID: **00125-77**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	ND	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	14 J	ug/Kg	63
m & p-Xylene	27 J	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

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Sample ID: PB-01-49 (7-8')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	ND	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	ND	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	42 J	ug/Kg	125
sec-Butylbenzene	ND	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	ND	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	ND	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	ND	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	ND	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	290 J	ug/Kg	1563
Butanone 2- (MEK)	130 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	43	50	86%
1,2-Dichloroethane d4	50	50	100%
Toluene d8	55	50	110%
Bromofluorobenzene	65	50	130%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4666
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: PB-01-31 (4-5') MS
Lab ID: 00125-31 MS
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	65	0	ug/Kg	50	130%
Chloromethane	61	0	ug/Kg	50	122%
Vinyl chloride	56	0	ug/Kg	50	112%
Bromomethane	29	0	ug/Kg	50	58%
Trichlorofluoromenthane	25	0	ug/Kg	50	50%
Chloroethane	8	0	ug/Kg	50	16%
1,1-Dichloroethene	45	0	ug/Kg	50	90%
Methylene chloride	51	0	ug/Kg	50	102%
trans-1,2-Dichloroethene	48	0	ug/Kg	50	96%
MTBE	62	0	ug/Kg	50	124%
1,1-Dichloroethane	52	0	ug/Kg	50	104%
2,2-Dichloropropane	36	0	ug/Kg	50	72%
cis-1,2-Dichloroethene	48	0	ug/Kg	50	96%
Bromochloromethane	38	0	ug/Kg	50	76%
Chloroform	47	0	ug/Kg	50	94%
1,1,1-Trichloroethane	43	0	ug/Kg	50	86%
Carbon tetrachloride	35	0	ug/Kg	50	70%
1,1-Dichloropropene	53	0	ug/Kg	50	106%
Benzene	51	0	ug/Kg	50	102%
1,2-Dichloroethane	50	0	ug/Kg	50	100%
Trichloroethene	46	0	ug/Kg	50	92%
1,2-Dichloropropane	56	0	ug/Kg	50	112%
Dibromomethane	42	0	ug/Kg	50	84%
Bromodichloromethane	37	0	ug/Kg	50	74%
cis-1,3-Dichloropropene	40	0	ug/Kg	50	80%
Toluene	48	0	ug/Kg	50	96%
trans-1,3-Dichloropropene	35	0	ug/Kg	50	70%
1,1,2-Trichloroethane	46	0	ug/Kg	50	92%
Tetrachloroethene	51	0	ug/Kg	50	102%
1,3-Dichloropropane	49	0	ug/Kg	50	98%
Dibromochloromethane	32	0	ug/Kg	50	64%
1,2-Dibromoethane	40	0	ug/Kg	50	80%
Chlorobenzene	52	0	ug/Kg	50	104%
1,1,1,2-Tetrachlorethane	40	0	ug/Kg	50	80%
Ethylbenzene	57	0	ug/Kg	50	114%
m & p-Xylene	113	0	ug/Kg	100	113%
o-Xylene	57	0	ug/Kg	50	114%

Continued

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Sample ID: PB-01-31 (4-5') MS

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec
Styrene	56	0	ug/Kg	50	112%
Bromoform	26	0	ug/Kg	50	52%
Isopropylbenzene	58	0	ug/Kg	50	116%
Bromobenzene	50	0	ug/Kg	50	100%
1,1,2,2-Tetrachloroethane	47	0	ug/Kg	50	94%
1,2,3-Trichloropropane	52	0	ug/Kg	50	104%
n-Propylbenzene	59	0	ug/Kg	50	118%
2-Chlorotoluene	57	0	ug/Kg	50	114%
4-Chlorotoluene	57	0	ug/Kg	50	114%
1,3,5-Trimethylbenzene	58	0	ug/Kg	50	116%
tert-Butylbenzene	53	0	ug/Kg	50	106%
1,2,4-Trimethylbenzene	56	0	ug/Kg	50	112%
sec-Butylbenzene	58	0	ug/Kg	50	116%
1,3-Dichlorobenzene	49	0	ug/Kg	50	98%
p-Isopropyltoluene	56	0	ug/Kg	50	112%
1,4-Dichlorobenzene	48	0	ug/Kg	50	96%
1,2-Dichlorobenzene	49	0	ug/Kg	50	98%
n-Butylbenzene	61	0	ug/Kg	50	122%
1,2-Dibromo-3-chloropropane	40	0	ug/Kg	50	80%
1,2,4-Trichlorobenzene	53	0	ug/Kg	50	106%
Hexachlorobutadiene	58	0	ug/Kg	50	116%
1,2,3-Trichlorobenzene	52	0	ug/Kg	50	104%
Acrylonitrite	52	0	ug/Kg	51	102%
Hexachloroethane	52	0	ug/Kg	52	100%
Methyl iodine	52	0	ug/Kg	53	98%
Methyl 4,-2-Propanone (MIBK)	49	0	ug/Kg	54	91%
Acetone	60	0	ug/Kg	55	109%
Butanone 2- (MEK)	38	0	ug/Kg	56	68%
Carbon Disulfide	36	0	ug/Kg	57	63%
Diethyl ether	52	0	ug/Kg	58	90%
Hexanone, 2-	57	0	ug/Kg	59	97%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	46		50	92%
1,2-Dichloroethane d4	53		50	106%
Toluene d8	50		50	100%
Bromofluorobenzene	55		50	110%

% Solids	92.30%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4667
Analysis Date: 24-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: **PB-01-31 (4-5') MSD**
Lab ID: **00125-31 MSD**
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec	% RSD
Dichlorodifluoromethane	67	0	ug/Kg	50	134%	3%
Chloromethane	69	0	ug/Kg	50	138%	12%
Vinyl chloride	57	0	ug/Kg	50	114%	2%
Bromomethane	35	0	ug/Kg	50	70%	19%
Trichlorofluoromenthane	27	0	ug/Kg	50	54%	8%
Chloroethane	9	0	ug/Kg	50	18%	12%
1,1-Dichloroethene	45	0	ug/Kg	50	90%	0%
Methylene chloride	48	0	ug/Kg	50	96%	-6%
trans-1,2-Dichloroethene	47	0	ug/Kg	50	94%	-2%
MTBE	62	0	ug/Kg	50	124%	0%
1,1-Dichloroethane	51	0	ug/Kg	50	102%	-2%
2,2-Dichloropropane	32	0	ug/Kg	50	64%	-12%
cis-1,2-Dichloroethene	46	0	ug/Kg	50	92%	-4%
Bromochloromethane	37	0	ug/Kg	50	74%	-3%
Chloroform	46	0	ug/Kg	50	92%	-2%
1,1,1-Trichloroethane	42	0	ug/Kg	50	84%	-2%
Carbon tetrachloride	35	0	ug/Kg	50	70%	0%
1,1-Dichloropropene	53	0	ug/Kg	50	106%	0%
Benzene	50	0	ug/Kg	50	100%	-2%
1,2-Dichloroethane	46	0	ug/Kg	50	92%	-8%
Trichloroethene	45	0	ug/Kg	50	90%	-2%
1,2-Dichloropropane	51	0	ug/Kg	50	102%	-9%
Dibromomethane	41	0	ug/Kg	50	82%	-2%
Bromodichloromethane	36	0	ug/Kg	50	72%	-3%
cis-1,3-Dichloropropene	38	0	ug/Kg	50	76%	-5%
Toluene	46	0	ug/Kg	50	92%	-4%
trans-1,3-Dichloropropene	34	0	ug/Kg	50	68%	-3%
1,1,2-Trichloroethane	45	0	ug/Kg	50	90%	-2%
Tetrachloroethene	59	0	ug/Kg	50	118%	15%
1,3-Dichloropropane	43	0	ug/Kg	50	86%	-13%
Dibromochloromethane	32	0	ug/Kg	50	64%	0%
1,2-Dibromoethane	36	0	ug/Kg	50	72%	-11%
Chlorobenzene	52	0	ug/Kg	50	104%	0%
1,1,1,2-Tetrachlorethane	43	0	ug/Kg	50	86%	7%
Ethylbenzene	57	0	ug/Kg	50	114%	0%
m & p-Xylene	113	0	ug/Kg	100	113%	0%
o-Xylene	58	0	ug/Kg	50	116%	2%

Continued

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Sample ID: PB-01-31 (4-5') MSD

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec	% RSD
Styrene	57	0	ug/Kg	50	114%	2%
Bromoform	32	0	ug/Kg	50	64%	21%
Isopropylbenzene	60	0	ug/Kg	50	120%	3%
Bromobenzene	52	0	ug/Kg	50	104%	4%
1,1,2,2-Tetrachloroethane	46	0	ug/Kg	50	92%	-2%
1,2,3-Trichloropropane	49	0	ug/Kg	50	98%	-6%
n-Propylbenzene	61	0	ug/Kg	50	122%	3%
2-Chlorotoluene	59	0	ug/Kg	50	118%	3%
4-Chlorotoluene	60	0	ug/Kg	50	120%	5%
1,3,5-Trimethylbenzene	59	0	ug/Kg	50	118%	2%
tert-Butylbenzene	55	0	ug/Kg	50	110%	4%
1,2,4-Trimethylbenzene	57	0	ug/Kg	50	114%	2%
sec-Butylbenzene	61	0	ug/Kg	50	122%	5%
1,3-Dichlorobenzene	51	0	ug/Kg	50	102%	4%
p-Isopropyltoluene	58	0	ug/Kg	50	116%	4%
1,4-Dichlorobenzene	49	0	ug/Kg	50	98%	2%
1,2-Dichlorobenzene	50	0	ug/Kg	50	100%	2%
n-Butylbenzene	61	0	ug/Kg	50	122%	0%
1,2-Dibromo-3-chloropropane	41	0	ug/Kg	50	82%	2%
1,2,4-Trichlorobenzene	54	0	ug/Kg	50	108%	2%
Hexachlorobutadiene	63	0	ug/Kg	50	126%	8%
1,2,3-Trichlorobenzene	52	0	ug/Kg	50	104%	0%
Acrylonitrite		0	ug/Kg	51	0%	-200%
Hexachloroethane		0	ug/Kg	52	0%	-200%
Methyl iodine		0	ug/Kg	53	0%	-200%
Methyl 4,-2-Propanone (MIBK)	52	0	ug/Kg	54	96%	6%
Acetone	64	0	ug/Kg	55	116%	6%
Butanone 2- (MEK)	56	0	ug/Kg	56	100%	38%
Carbon Disulfide	41	0	ug/Kg	57	72%	13%
Diethyl ether	60	0	ug/Kg	58	103%	14%
Hexanone, 2-	60	0	ug/Kg	59	102%	5%

Surrogates			Spike Amount	% Rec	% RSD
Dibromofluoromethane	45		50	90%	-2%
1,2-Dichloroethane d4	46		50	92%	-14%
Toluene d8	46		50	92%	-8%
Bromofluorobenzene	54		50	108%	-2%

% Solids	92.30%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4669
Analysis Date: 24-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: CCV @ 50 NG
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	63	ug/L	50	126%
Chloromethane	53	ug/L	50	106%
Vinyl chloride	55	ug/L	50	110%
Bromomethane	44	ug/L	50	88%
Trichlorofluoromenthane	36	ug/L	50	72%
Chloroethane	14	ug/L	50	28%
1,1-Dichloroethene	51	ug/L	50	102%
Methylene chloride	48	ug/L	50	96%
trans-1,2-Dichloroethene	44	ug/L	50	88%
MTBE	55	ug/L	50	110%
1,1-Dichloroethane	47	ug/L	50	94%
2,2-Dichloropropane	13	ug/L	50	26%
cis-1,2-Dichloroethene	45	ug/L	50	90%
Bromochloromethane	31	ug/L	50	62%
Chloroform	46	ug/L	50	92%
1,1,1-Trichloroethane	43	ug/L	50	86%
Carbon tetrachloride	36	ug/L	50	72%
1,1-Dichloropropene	53	ug/L	50	106%
Benzene	51	ug/L	50	102%
1,2-Dichloroethane	50	ug/L	50	100%
Trichloroethene	46	ug/L	50	92%
1,2-Dichloropropane	54	ug/L	50	108%
Dibromomethane	42	ug/L	50	84%
Bromodichloromethane	40	ug/L	50	80%
cis-1,3-Dichloropropene	38	ug/L	50	76%
Toluene	50	ug/L	50	100%
trans-1,3-Dichloropropene	46	ug/L	50	92%
1,1,2-Trichloroethane	50	ug/L	50	100%
Tetrachloroethene	52	ug/L	50	104%
1,3-Dichloropropane	46	ug/L	50	92%
Dibromochloromethane	32	ug/L	50	64%
1,2-Dibromoethane	30	ug/L	50	60%
Chlorobenzene	53	ug/L	50	106%
1,1,1,2-Tetrachlorethane	42	ug/L	50	84%
Ethylbenzene	56	ug/L	50	112%
m & p-Xylene	111	ug/L	100	111%
o-Xylene	55	ug/L	50	110%

Continued

New Age/Landmark
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Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: CCV @ 50 NG

Continued	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Styrene	56	ug/L	50	112%
Bromoform	33	ug/L	50	66%
Isopropylbenzene	56	ug/L	50	112%
Bromobenzene	50	ug/L	50	100%
1,1,2,2-Tetrachloroethane	54	ug/L	50	108%
1,2,3-Trichloropropane	60	ug/L	50	120%
n-Propylbenzene	55	ug/L	50	110%
2-Chlorotoluene	54	ug/L	50	108%
4-Chlorotoluene	55	ug/L	50	110%
1,3,5-Trimethylbenzene	55	ug/L	50	110%
tert-Butylbenzene	50	ug/L	50	100%
1,2,4-Trimethylbenzene	52	ug/L	50	104%
sec-Butylbenzene	55	ug/L	50	110%
1,3-Dichlorobenzene	49	ug/L	50	98%
p-Isopropyltoluene	53	ug/L	50	106%
1,4-Dichlorobenzene	48	ug/L	50	96%
1,2-Dichlorobenzene	50	ug/L	50	100%
n-Butylbenzene	55	ug/L	50	110%
1,2-Dibromo-3-chloropropane	49	ug/L	50	98%
1,2,4-Trichlorobenzene	54	ug/L	50	108%
Hexachlorobutadiene	58	ug/L	50	116%
1,2,3-Trichlorobenzene	53	ug/L	50	106%
Acrylonitrite		ug/L	50	0%
Hexachloroethane		ug/L	50	0%
Methyl iodine		ug/L	50	0%
Methyl 4,-2-Propanone (MIBK)	59	ug/L	50	118%
Acetone	71	ug/L	50	142%
Butanone 2- (MEK)	71	ug/L	50	142%
Carbon Disulfide	35	ug/L	50	70%
Diethyl ether	51	ug/L	50	102%
Hexanone, 2-	77	ug/L	50	154%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	48	ug/L	50	96%
1,2-Dichloroethane d4	57	ug/L	50	114%
Toluene d8	57	ug/L	50	114%
Bromofluorobenzene	57	ug/L	50	114%

% Solids	
Dilution Factor	1
Soil Weight Preserved	
MeOH Volume	

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4672
Analysis Date: 24-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: Method Blank
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	1.2	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: Method Blank

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	49	ug/Kg	50	98%
1,2-Dichloroethane d4	57	ug/Kg	50	114%
Toluene d8	55	ug/Kg	50	110%
Bromofluorobenzene	61	ug/Kg	50	122%

% Solids	100.00%
Dilution Factor	50
Soil Weight Preserved	10.00
MeOH Volume	10

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4690
Analysis Date: 25-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: PB-01-49 (11-12')
Lab ID: 00125-78
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	170 J	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	18 J	ug/Kg	63
Methylene chloride	ND	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	ND	ug/Kg	63
m & p-Xylene	ND	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

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Sample ID: PB-01-49 (11-12')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	ND	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	ND	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	ND	ug/Kg	125
sec-Butylbenzene	ND	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	ND	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	ND	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	ND	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	ND	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	420 J	ug/Kg	1563
Butanone 2- (MEK)	ND	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	41		50	82%
1,2-Dichloroethane d4	50		50	100%
Toluene d8	53		50	106%
Bromofluorobenzene	68X		50	#VALUE!
% Solids	80.00%			
Dilution Factor	50			
Soil Weight Preserved	10.00	gm		
MeOH Volume	10	mL		

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4691
Analysis Date: 25-May-01
Preservation Date: 23-May-01
Operator: LEW
Sample ID: **PB-01-39 (12-13')**
Lab ID: **00125-42**
Matrix: Soil
Date Sampled: 23-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	296
Chloromethane	350	ug/Kg	296
Vinyl chloride	ND	ug/Kg	118
Bromomethane	110 J	ug/Kg	296
Trichlorofluoromenthane	ND	ug/Kg	296
Chloroethane	ND	ug/Kg	296
1,1-Dichloroethene	ND	ug/Kg	59
Methylene chloride	ND	ug/Kg	296
trans-1,2-Dichloroethene	ND	ug/Kg	59
MTBE	ND	ug/Kg	296
1,1-Dichloroethane	ND	ug/Kg	59
2,2-Dichloropropane	ND	ug/Kg	59
cis-1,2-Dichloroethene	ND	ug/Kg	59
Bromochloromethane	ND	ug/Kg	118
Chloroform	ND	ug/Kg	59
1,1,1-Trichloroethane	ND	ug/Kg	59
Carbon tetrachloride	ND	ug/Kg	59
1,1-Dichloropropene	ND	ug/Kg	59
Benzene	ND	ug/Kg	59
1,2-Dichloroethane	ND	ug/Kg	59
Trichloroethene	20 J	ug/Kg	59
1,2-Dichloropropane	ND	ug/Kg	59
Dibromomethane	ND	ug/Kg	118
Bromodichloromethane	ND	ug/Kg	118
cis-1,3-Dichloropropene	ND	ug/Kg	59
Toluene	ND	ug/Kg	59
trans-1,3-Dichloropropene	ND	ug/Kg	59
1,1,2-Trichloroethane	ND	ug/Kg	59
Tetrachloroethene	ND	ug/Kg	59
1,3-Dichloropropane	ND	ug/Kg	59
Dibromochloromethane	ND	ug/Kg	118
1,2-Dibromoethane	ND	ug/Kg	59
Chlorobenzene	ND	ug/Kg	59
1,1,1,2-Tetrachlorethane	ND	ug/Kg	118
Ethylbenzene	ND	ug/Kg	59
m & p-Xylene	24 J	ug/Kg	118
o-Xylene	ND	ug/Kg	59

Continued

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Sample ID: PB-01-39 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	59
Bromoform	ND	ug/Kg	118
Isopropylbenzene	ND	ug/Kg	118
Bromobenzene	ND	ug/Kg	118
1,1,2,2-Tetrachloroethane	ND	ug/Kg	118
1,2,3-Trichloropropane	ND	ug/Kg	118
n-Propylbenzene	ND	ug/Kg	118
2-Chlorotoluene	ND	ug/Kg	118
4-Chlorotoluene	ND	ug/Kg	118
1,3,5-Trimethylbenzene	ND	ug/Kg	118
tert-Butylbenzene	ND	ug/Kg	118
1,2,4-Trimethylbenzene	ND	ug/Kg	118
sec-Butylbenzene	ND	ug/Kg	118
1,3-Dichlorobenzene	ND	ug/Kg	118
p-Isopropyltoluene	ND	ug/Kg	118
1,4-Dichlorobenzene	ND	ug/Kg	118
1,2-Dichlorobenzene	ND	ug/Kg	118
n-Butylbenzene	ND	ug/Kg	118
1,2-Dibromo-3-chloropropane	ND	ug/Kg	296
1,2,4-Trichlorobenzene	ND	ug/Kg	296
Hexachlorobutadiene	ND	ug/Kg	296
1,2,3-Trichlorobenzene	ND	ug/Kg	296
Acrylonitrite	ND	ug/Kg	296
Hexachloroethane	ND	ug/Kg	118
Methyl iodine	ND	ug/Kg	118
Methyl 4.-2-Propanone (MIBK)	ND	ug/Kg	296
Acetone	340 J	ug/Kg	1478
Butanone 2- (MEK)	140 J	ug/Kg	296
Carbon Disulfide	ND	ug/Kg	296
Diethyl ether	ND	ug/Kg	591
Hexanone, 2-	ND	ug/Kg	296

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	39	50	78%
1,2-Dichloroethane d4	45	50	90%
Toluene d8	49	50	98%
Bromofluorobenzene	41	50	82%

% Solids	84.60%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean. OH

Data file: NALA4692
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-40 (4-5')
Lab ID: 00125-43
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	278
Chloromethane	ND	ug/Kg	278
Vinyl chloride	ND	ug/Kg	111
Bromomethane	ND	ug/Kg	278
Trichlorofluoromenthane	ND	ug/Kg	278
Chloroethane	ND	ug/Kg	278
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	ND	ug/Kg	278
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	278
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	111
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	83	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	ND	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	111
Bromodichloromethane	ND	ug/Kg	111
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	490	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	111
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	111
Ethylbenzene	400	ug/Kg	56
m & p-Xylene	820	ug/Kg	111
o-Xylene	680	ug/Kg	56

Continued

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Sample ID: PB-01-40 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	111
Isopropylbenzene	210	ug/Kg	111
Bromobenzene	ND	ug/Kg	111
1,1,2,2-Tetrachloroethane	ND	ug/Kg	111
1,2,3-Trichloropropane	ND	ug/Kg	111
n-Propylbenzene	230	ug/Kg	111
2-Chlorotoluene	ND	ug/Kg	111
4-Chlorotoluene	ND	ug/Kg	111
1,3,5-Trimethylbenzene	130	ug/Kg	111
tert-Butylbenzene	ND	ug/Kg	111
1,2,4-Trimethylbenzene	610	ug/Kg	111
scc-Butylbenzene	ND	ug/Kg	111
1,3-Dichlorobenzene	ND	ug/Kg	111
p-Isopropyltoluene	ND	ug/Kg	111
1,4-Dichlorobenzene	ND	ug/Kg	111
1,2-Dichlorobenzene	ND	ug/Kg	111
n-Butylbenzene	130	ug/Kg	111
1,2-Dibromo-3-chloropropane	ND	ug/Kg	278
1,2,4-Trichlorobenzene	ND	ug/Kg	278
Hexachlorobutadiene	ND	ug/Kg	278
1,2,3-Trichlorobenzene	ND	ug/Kg	278
Acrylonitrite	ND	ug/Kg	278
Hexachloroethane	ND	ug/Kg	111
Methyl iodine	ND	ug/Kg	111
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	278
Acetone	ND	ug/Kg	1389
Butanone 2- (MEK)	ND	ug/Kg	278
Carbon Disulfide	ND	ug/Kg	278
Diethyl ether	ND	ug/Kg	556
Hexanone, 2-	ND	ug/Kg	278

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	42	50	84%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	49	50	98%
Bromofluorobenzene	53	50	106%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4696
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-40 (8-9')**
Lab ID: **00125-44**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	56 J	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: PB-01-40 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	11 J	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	19 J	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	21 J	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	190 J	ug/Kg	1250
Butanone 2- (MEK)	110 J	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	48		50	96%
1,2-Dichloroethane d4	47		50	94%
Toluene d8	50		50	100%
Bromofluorobenzene	57		50	114%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL
		X=1SURR HIGH

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4697
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-40 (12-13')**
Lab ID: **00125-45**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	292
Chloromethane	160 J	ug/Kg	292
Vinyl chloride	ND	ug/Kg	117
Bromomethane	89 J	ug/Kg	292
Trichlorofluoromenthane	ND	ug/Kg	292
Chloroethane	ND	ug/Kg	292
1,1-Dichloroethene	ND	ug/Kg	58
Methylene chloride	ND	ug/Kg	292
trans-1,2-Dichloroethene	ND	ug/Kg	58
MTBE	ND	ug/Kg	292
1,1-Dichloroethane	ND	ug/Kg	58
2,2-Dichloropropane	ND	ug/Kg	58
cis-1,2-Dichloroethene	ND	ug/Kg	58
Bromochloromethane	ND	ug/Kg	117
Chloroform	ND	ug/Kg	58
1,1,1-Trichloroethane	ND	ug/Kg	58
Carbon tetrachloride	ND	ug/Kg	58
1,1-Dichloropropene	ND	ug/Kg	58
Benzene	ND	ug/Kg	58
1,2-Dichloroethane	ND	ug/Kg	58
Trichloroethene	ND	ug/Kg	58
1,2-Dichloropropane	ND	ug/Kg	58
Dibromomethane	ND	ug/Kg	117
Bromodichloromethane	ND	ug/Kg	117
cis-1,3-Dichloropropene	ND	ug/Kg	58
Toluene	ND	ug/Kg	58
trans-1,3-Dichloropropene	ND	ug/Kg	58
1,1,2-Trichloroethane	ND	ug/Kg	58
Tetrachloroethene	ND	ug/Kg	58
1,3-Dichloropropane	ND	ug/Kg	58
Dibromochloromethane	ND	ug/Kg	117
1,2-Dibromoethane	ND	ug/Kg	58
Chlorobenzene	ND	ug/Kg	58
1,1,1,2-Tetrachlorethane	ND	ug/Kg	117
Ethylbenzene	ND	ug/Kg	58
m & p-Xylene	ND	ug/Kg	117
o-Xylene	ND	ug/Kg	58

Continued

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Sample ID: PB-01-40 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	58
Bromoform	ND	ug/Kg	117
Isopropylbenzene	ND	ug/Kg	117
Bromobenzene	ND	ug/Kg	117
1,1,2,2-Tetrachloroethane	ND	ug/Kg	117
1,2,3-Trichloropropane	ND	ug/Kg	117
n-Propylbenzene	ND	ug/Kg	117
2-Chlorotoluene	ND	ug/Kg	117
4-Chlorotoluene	ND	ug/Kg	117
1,3,5-Trimethylbenzene	ND	ug/Kg	117
tert-Butylbenzene	ND	ug/Kg	117
1,2,4-Trimethylbenzene	16 J	ug/Kg	117
sec-Butylbenzene	ND	ug/Kg	117
1,3-Dichlorobenzene	ND	ug/Kg	117
p-Isopropyltoluene	ND	ug/Kg	117
1,4-Dichlorobenzene	ND	ug/Kg	117
1,2-Dichlorobenzene	ND	ug/Kg	117
n-Butylbenzene	ND	ug/Kg	117
1,2-Dibromo-3-chloropropane	ND	ug/Kg	292
1,2,4-Trichlorobenzene	ND	ug/Kg	292
Hexachlorobutadiene	ND	ug/Kg	292
1,2,3-Trichlorobenzene	ND	ug/Kg	292
Acrylonitrite	ND	ug/Kg	292
Hexachloroethane	ND	ug/Kg	117
Methyl iodine	ND	ug/Kg	117
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	292
Acetone	250 J	ug/Kg	1459
Butanone 2- (MEK)	130 J	ug/Kg	292
Carbon Disulfide	ND	ug/Kg	292
Diethyl ether	ND	ug/Kg	583
Hexanone, 2-	ND	ug/Kg	292

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	44		50	88%
1,2-Dichloroethane d4	50		50	100%
Toluene d8	48		50	96%
Bromofluorobenzene	57		50	114%

% Solids	85.70%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4698
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-41 (4-5')
Lab ID: 00125-46
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	286
Chloromethane	ND	ug/Kg	286
Vinyl chloride	ND	ug/Kg	114
Bromomethane	ND	ug/Kg	286
Trichlorofluoromenthane	ND	ug/Kg	286
Chloroethane	ND	ug/Kg	286
1,1-Dichloroethene	ND	ug/Kg	57
Methylene chloride	ND	ug/Kg	286
trans-1,2-Dichloroethene	ND	ug/Kg	57
MTBE	ND	ug/Kg	286
1,1-Dichloroethane	ND	ug/Kg	57
2,2-Dichloropropane	ND	ug/Kg	57
cis-1,2-Dichloroethene	ND	ug/Kg	57
Bromochloromethane	ND	ug/Kg	114
Chloroform	ND	ug/Kg	57
1,1,1-Trichloroethane	ND	ug/Kg	57
Carbon tetrachloride	ND	ug/Kg	57
1,1-Dichloropropene	ND	ug/Kg	57
Benzene	ND	ug/Kg	57
1,2-Dichloroethane	ND	ug/Kg	57
Trichloroethene	17 J	ug/Kg	57
1,2-Dichloropropane	ND	ug/Kg	57
Dibromomethane	ND	ug/Kg	114
Bromodichloromethane	ND	ug/Kg	114
cis-1,3-Dichloropropene	ND	ug/Kg	57
Toluene	ND	ug/Kg	57
trans-1,3-Dichloropropene	ND	ug/Kg	57
1,1,2-Trichloroethane	ND	ug/Kg	57
Tetrachloroethene	ND	ug/Kg	57
1,3-Dichloropropane	ND	ug/Kg	57
Dibromochloromethane	ND	ug/Kg	114
1,2-Dibromoethane	ND	ug/Kg	57
Chlorobenzene	ND	ug/Kg	57
1,1,1,2-Tetrachlorethane	ND	ug/Kg	114
Ethylbenzene	ND	ug/Kg	57
m & p-Xylene	ND	ug/Kg	114
o-Xylene	ND	ug/Kg	57

Continued

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Sample ID: PB-01-41 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	57
Bromoform	ND	ug/Kg	114
Isopropylbenzene	ND	ug/Kg	114
Bromobenzene	ND	ug/Kg	114
1,1,2,2-Tetrachloroethane	ND	ug/Kg	114
1,2,3-Trichloropropane	ND	ug/Kg	114
n-Propylbenzene	ND	ug/Kg	114
2-Chlorotoluene	ND	ug/Kg	114
4-Chlorotoluene	ND	ug/Kg	114
1,3,5-Trimethylbenzene	ND	ug/Kg	114
tert-Butylbenzene	ND	ug/Kg	114
1,2,4-Trimethylbenzene	ND	ug/Kg	114
sec-Butylbenzene	ND	ug/Kg	114
1,3-Dichlorobenzene	ND	ug/Kg	114
p-Isopropyltoluene	ND	ug/Kg	114
1,4-Dichlorobenzene	ND	ug/Kg	114
1,2-Dichlorobenzene	ND	ug/Kg	114
n-Butylbenzene	ND	ug/Kg	114
1,2-Dibromo-3-chloropropane	ND	ug/Kg	286
1,2,4-Trichlorobenzene	ND	ug/Kg	286
Hexachlorobutadiene	ND	ug/Kg	286
1,2,3-Trichlorobenzene	ND	ug/Kg	286
Acrylonitrite	ND	ug/Kg	286
Hexachloroethane	ND	ug/Kg	114
Methyl iodine	ND	ug/Kg	114
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	286
Acetone	240 J	ug/Kg	1429
Butanone 2- (MEK)	120 J	ug/Kg	286
Carbon Disulfide	ND	ug/Kg	286
Diethyl ether	ND	ug/Kg	571
Hexanone, 2-	ND	ug/Kg	286

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	50		50	100%
1,2-Dichloroethane d4	55		50	110%
Toluene d8	54		50	108%
Bromofluorobenzene	60		50	120%
% Solids	87.50%			
Dilution Factor	50			
Soil Weight Preserved	10.00	gm		
MeOH Volume	10	mL		

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4699
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-41 (8-9')**
Lab ID: **00125-47**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	278
Chloromethane	ND	ug/Kg	278
Vinyl chloride	ND	ug/Kg	111
Bromomethane	ND	ug/Kg	278
Trichlorofluoromenthane	ND	ug/Kg	278
Chloroethane	ND	ug/Kg	278
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	ND	ug/Kg	278
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	278
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	111
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	24 J	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	111
Bromodichloromethane	ND	ug/Kg	111
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	111
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	111
Ethylbenzene	ND	ug/Kg	56
m & p-Xylene	ND	ug/Kg	111
o-Xylene	ND	ug/Kg	56

Continued

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Sample ID: PB-01-41 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	111
Isopropylbenzene	ND	ug/Kg	111
Bromobenzene	ND	ug/Kg	111
1,1,2,2-Tetrachloroethane	ND	ug/Kg	111
1,2,3-Trichloropropane	ND	ug/Kg	111
n-Propylbenzene	ND	ug/Kg	111
2-Chlorotoluene	ND	ug/Kg	111
4-Chlorotoluene	ND	ug/Kg	111
1,3,5-Trimethylbenzene	ND	ug/Kg	111
tert-Butylbenzene	ND	ug/Kg	111
1,2,4-Trimethylbenzene	ND	ug/Kg	111
sec-Butylbenzene	ND	ug/Kg	111
1,3-Dichlorobenzene	ND	ug/Kg	111
p-Isopropyltoluene	ND	ug/Kg	111
1,4-Dichlorobenzene	ND	ug/Kg	111
1,2-Dichlorobenzene	ND	ug/Kg	111
n-Butylbenzene	ND	ug/Kg	111
1,2-Dibromo-3-chloropropane	ND	ug/Kg	278
1,2,4-Trichlorobenzene	ND	ug/Kg	278
Hexachlorobutadiene	ND	ug/Kg	278
1,2,3-Trichlorobenzene	ND	ug/Kg	278
Acrylonitrite	ND	ug/Kg	278
Hexachloroethane	ND	ug/Kg	111
Methyl iodine	ND	ug/Kg	111
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	278
Acetone	210 J	ug/Kg	1389
Butanone 2- (MEK)	110 J	ug/Kg	278
Carbon Disulfide	ND	ug/Kg	278
Diethyl ether	ND	ug/Kg	556
Hexanone, 2-	ND	ug/Kg	278

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	44		50	88%
1,2-Dichloroethane d4	51		50	102%
Toluene d8	51		50	102%
Bromofluorobenzene	57		50	114%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4700
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-41 (12-13')**
Lab ID: **00125-48**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	282
Chloromethane	ND	ug/Kg	282
Vinyl chloride	ND	ug/Kg	113
Bromomethane	ND	ug/Kg	282
Trichlorofluoromenthane	ND	ug/Kg	282
Chloroethane	ND	ug/Kg	282
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	ND	ug/Kg	282
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	282
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	113
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	14 J	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	113
Bromodichloromethane	ND	ug/Kg	113
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	113
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	113
Ethylbenzene	ND	ug/Kg	56
m & p-Xylene	ND	ug/Kg	113
o-Xylene	ND	ug/Kg	56

Continued

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Sample ID: PB-01-41 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	113
Isopropylbenzene	ND	ug/Kg	113
Bromobenzene	ND	ug/Kg	113
1,1,2,2-Tetrachloroethane	ND	ug/Kg	113
1,2,3-Trichloropropane	ND	ug/Kg	113
n-Propylbenzene	ND	ug/Kg	113
2-Chlorotoluene	ND	ug/Kg	113
4-Chlorotoluene	ND	ug/Kg	113
1,3,5-Trimethylbenzene	ND	ug/Kg	113
tert-Butylbenzene	ND	ug/Kg	113
1,2,4-Trimethylbenzene	ND	ug/Kg	113
sec-Butylbenzene	ND	ug/Kg	113
1,3-Dichlorobenzene	ND	ug/Kg	113
p-Isopropyltoluene	ND	ug/Kg	113
1,4-Dichlorobenzene	ND	ug/Kg	113
1,2-Dichlorobenzene	ND	ug/Kg	113
n-Butylbenzene	ND	ug/Kg	113
1,2-Dibromo-3-chloropropane	ND	ug/Kg	282
1,2,4-Trichlorobenzene	ND	ug/Kg	282
Hexachlorobutadiene	ND	ug/Kg	282
1,2,3-Trichlorobenzene	ND	ug/Kg	282
Acrylonitrite	ND	ug/Kg	282
Hexachloroethane	ND	ug/Kg	113
Methyl iodine	ND	ug/Kg	113
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	282
Acetone	220 J	ug/Kg	1408
Butanone 2- (MEK)	110 J	ug/Kg	282
Carbon Disulfide	ND	ug/Kg	282
Diethyl ether	ND	ug/Kg	563
Hexanone, 2-	ND	ug/Kg	282
	ND		

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	44	50	88%
1,2-Dichloroethane d4	50	50	100%
Toluene d8	48	50	96%
Bromofluorobenzene	57	50	114%

% Solids	88.80%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

X=1 HIGH SURR NO HITS

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4701
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-42** (4-5')
Lab ID: **00125-49**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	273
Chloromethane	ND	ug/Kg	273
Vinyl chloride	ND	ug/Kg	109
Bromomethane	ND	ug/Kg	273
Trichlorofluoromenthane	ND	ug/Kg	273
Chloroethane	ND	ug/Kg	273
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	ND	ug/Kg	273
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	273
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	109
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	16 J	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	109
Bromodichloromethane	ND	ug/Kg	109
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	290	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromoehloromethane	ND	ug/Kg	109
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	109
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	22 J	ug/Kg	109
o-Xylene	ND	ug/Kg	55

Continued

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Sample ID: PB-01-42 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	109
Isopropylbenzene	ND	ug/Kg	109
Bromobenzene	ND	ug/Kg	109
1,1,2,2-Tetrachloroethane	ND	ug/Kg	109
1,2,3-Trichloropropane	ND	ug/Kg	109
n-Propylbenzene	ND	ug/Kg	109
2-Chlorotoluene	ND	ug/Kg	109
4-Chlorotoluene	ND	ug/Kg	109
1,3,5-Trimethylbenzene	ND	ug/Kg	109
tert-Butylbenzene	ND	ug/Kg	109
1,2,4-Trimethylbenzene	ND	ug/Kg	109
sec-Butylbenzene	ND	ug/Kg	109
1,3-Dichlorobenzene	ND	ug/Kg	109
p-Isopropyltoluene	ND	ug/Kg	109
1,4-Dichlorobenzene	ND	ug/Kg	109
1,2-Dichlorobenzene	ND	ug/Kg	109
n-Butylbenzene	ND	ug/Kg	109
1,2-Dibromo-3-chloropropane	ND	ug/Kg	273
1,2,4-Trichlorobenzene	ND	ug/Kg	273
Hexachlorobutadiene	ND	ug/Kg	273
1,2,3-Trichlorobenzene	ND	ug/Kg	273
Acrylonitrite	ND	ug/Kg	273
Hexachloroethane	ND	ug/Kg	109
Methyl iodine	ND	ug/Kg	109
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	273
Acetone	240 J	ug/Kg	1365
Butanone 2- (MEK)	130 J	ug/Kg	273
Carbon Disulfide	ND	ug/Kg	273
Diethyl ether	ND	ug/Kg	546
Hexanone, 2-	ND	ug/Kg	273

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	42	50	84%
1,2-Dichloroethane d4	48	50	96%
Toluene d8	50	50	100%
Bromofluorobenzene	57	50	114%

% Solids	91.60%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4703
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-42 (12-13')
Lab ID: 00125-51
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	292
Chloromethane	ND	ug/Kg	292
Vinyl chloride	ND	ug/Kg	117
Bromomethane	ND	ug/Kg	292
Trichlorofluoromenthane	ND	ug/Kg	292
Chloroethane	ND	ug/Kg	292
1,1-Dichloroethene	ND	ug/Kg	58
Methylene chloride	ND	ug/Kg	292
trans-1,2-Dichloroethene	ND	ug/Kg	58
MTBE	ND	ug/Kg	292
1,1-Dichloroethane	ND	ug/Kg	58
2,2-Dichloropropane	ND	ug/Kg	58
cis-1,2-Dichloroethene	ND	ug/Kg	58
Bromochloromethane	ND	ug/Kg	117
Chloroform	ND	ug/Kg	58
1,1,1-Trichloroethane	ND	ug/Kg	58
Carbon tetrachloride	ND	ug/Kg	58
1,1-Dichloropropene	ND	ug/Kg	58
Benzene	ND	ug/Kg	58
1,2-Dichloroethane	ND	ug/Kg	58
Trichloroethene	ND	ug/Kg	58
1,2-Dichloropropane	ND	ug/Kg	58
Dibromomethane	ND	ug/Kg	117
Bromodichloromethane	ND	ug/Kg	117
cis-1,3-Dichloropropene	ND	ug/Kg	58
Toluene	ND	ug/Kg	58
trans-1,3-Dichloropropene	ND	ug/Kg	58
1,1,2-Trichloroethane	ND	ug/Kg	58
Tetrachloroethene	ND	ug/Kg	58
1,3-Dichloropropane	ND	ug/Kg	58
Dibromochloromethane	ND	ug/Kg	117
1,2-Dibromoethane	ND	ug/Kg	58
Chlorobenzene	ND	ug/Kg	58
1,1,1,2-Tetrachlorethane	ND	ug/Kg	117
Ethylbenzene	ND	ug/Kg	58
m & p-Xylene	ND	ug/Kg	117
o-Xylene	ND	ug/Kg	58

Continued

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Sample ID: PB-01-42 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	58
Bromoform	ND	ug/Kg	117
Isopropylbenzene	ND	ug/Kg	117
Bromobenzene	ND	ug/Kg	117
1,1,2,2-Tetrachloroethane	ND	ug/Kg	117
1,2,3-Trichloropropane	ND	ug/Kg	117
n-Propylbenzene	ND	ug/Kg	117
2-Chlorotoluene	ND	ug/Kg	117
4-Chlorotoluene	ND	ug/Kg	117
1,3,5-Trimethylbenzene	ND	ug/Kg	117
tert-Butylbenzene	ND	ug/Kg	117
1,2,4-Trimethylbenzene	ND	ug/Kg	117
sec-Butylbenzene	ND	ug/Kg	117
1,3-Dichlorobenzene	ND	ug/Kg	117
p-Isopropyltoluene	ND	ug/Kg	117
1,4-Dichlorobenzene	ND	ug/Kg	117
1,2-Dichlorobenzene	ND	ug/Kg	117
n-Butylbenzene	ND	ug/Kg	117
1,2-Dibromo-3-chloropropane	ND	ug/Kg	292
1,2,4-Trichlorobenzene	ND	ug/Kg	292
Hexachlorobutadiene	ND	ug/Kg	292
1,2,3-Trichlorobenzene	ND	ug/Kg	292
Acrylonitrite	ND	ug/Kg	292
Hexachloroethane	ND	ug/Kg	117
Methyl iodine	ND	ug/Kg	117
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	292
Acetone	230 J	ug/Kg	1459
Butanone 2- (MEK)	110 J	ug/Kg	292
Carbon Disulfide	ND	ug/Kg	292
Diethyl ether	ND	ug/Kg	583
Hexanone, 2-	ND	ug/Kg	292

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	47		50	94%
1,2-Dichloroethane d4	51		50	102%
Toluene d8	50		50	100%
Bromofluorobenzene	58		50	116%

% Solids	85.70%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4704
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-42 (14-15')
Lab ID: 00125-52
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	16 J	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochlorometbane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	32 J	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: PB-01-42 (14-15')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	8.0 J	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	7.5 J	ug/Kg	100
1,3,5-Trimethylbenzene	10 J	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	24 J	ug/Kg	100
sec-Butylbenzene	7.0 J	ug/Kg	100
1,3-Dichlorobenzene	5.5 J	ug/Kg	100
p-Isopropyltoluene	10 J	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	13 J	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	9.5 J	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	190 J	ug/Kg	1250
Butanone 2- (MEK)	94 J	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	46	50	92%
1,2-Dichloroethane d4	53	50	106%
Toluene d8	53	50	106%
Bromofluorobenzene	58	50	116%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4705
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-43 (4-5')
Lab ID: 00125-53
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	19 J	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	13 J	ug/Kg	50
m & p-Xylene	41 J	ug/Kg	100
o-Xylene	20 J	ug/Kg	50

Continued

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Sample ID: PB-01-43 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	7.0 J	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	6.0 J	ug/Kg	100
1,3,5-Trimethylbenzene	11 J	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	19 J	ug/Kg	100
sec-Butylbenzene	6.0 J	ug/Kg	100
1,3-Dichlorobenzene	6.0 J	ug/Kg	100
p-Isopropyltoluene	17 J	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	10 J	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	10 J	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	340 J	ug/Kg	1250
Butanone 2- (MEK)	92 J	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	43		50	86%
1,2-Dichloroethane d4	49		50	98%
Toluene d8	47		50	94%
Bromofluorobenzene	51		50	102%
% Solids	100.00%			
Dilution Factor	50			
Soil Weight Preserved	10.00	gm		
MeOH Volume	10	mL		

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4706
Analysis Date: 25-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-43 (8-9')
Lab ID: 00125-54
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	ND	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	19 J	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	ND	ug/Kg	63
m & p-Xylene	ND	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

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Sample ID: PB-01-43 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	ND	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	ND	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	ND	ug/Kg	125
sec-Butylbenzene	ND	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	11 J	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	ND	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	ND	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	ND	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	240 J	ug/Kg	1563
Butanone 2- (MEK)	71 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	46		50	92%
1,2-Dichloroethane d4	50		50	100%
Toluene d8	50		50	100%
Bromofluorobenzene	53		50	106%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4726
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-43 (12-13')
Lab ID: 00125-55
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	282
Chloromethane	190 J	ug/Kg	282
Vinyl chloride	ND	ug/Kg	113
Bromomethane	140 J	ug/Kg	282
Trichlorofluoromenthane	ND	ug/Kg	282
Chloroethane	ND	ug/Kg	282
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	17 J	ug/Kg	282
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	282
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	113
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	17 J	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	113
Bromodichloromethane	ND	ug/Kg	113
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	113
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	113
Ethylbenzene	ND	ug/Kg	56
m & p-Xylene	ND	ug/Kg	113
o-Xylene	ND	ug/Kg	56

Continued

New Age/Landmark
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Sample ID: PB-01-43 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	113
Isopropylbenzene	ND	ug/Kg	113
Bromobenzene	ND	ug/Kg	113
1,1,2,2-Tetrachloroethane	ND	ug/Kg	113
1,2,3-Trichloropropane	ND	ug/Kg	113
n-Propylbenzene	ND	ug/Kg	113
2-Chlorotoluene	ND	ug/Kg	113
4-Chlorotoluene	9.6 J	ug/Kg	113
1,3,5-Trimethylbenzene	8.5 J	ug/Kg	113
tert-Butylbenzene	6.8 J	ug/Kg	113
1,2,4-Trimethylbenzene	42 J	ug/Kg	113
sec-Butylbenzene	8.4 J	ug/Kg	113
1,3-Dichlorobenzene	14 J	ug/Kg	113
p-Isopropyltoluene	12 J	ug/Kg	113
1,4-Dichlorobenzene	14 J	ug/Kg	113
1,2-Dichlorobenzene	18 J	ug/Kg	113
n-Butylbenzene	12 J	ug/Kg	113
1,2-Dibromo-3-chloropropane	ND	ug/Kg	282
1,2,4-Trichlorobenzene	47 J	ug/Kg	282
Hexachlorobutadiene	ND	ug/Kg	282
1,2,3-Trichlorobenzene	66 J	ug/Kg	282
Acrylonitrite	ND	ug/Kg	282
Hexachloroethane	ND	ug/Kg	113
Methyl iodine	ND	ug/Kg	113
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	282
Acetone	680 J	ug/Kg	1408
Butanone 2- (MEK)	230 J	ug/Kg	282
Carbon Disulfide	ND	ug/Kg	282
Diethyl ether	ND	ug/Kg	563
Hexanone, 2-	ND	ug/Kg	282

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	50		50	100%
1,2-Dichloroethane d4	55		50	110%
Toluene d8	53		50	106%
Bromofluorobenzene	53		50	106%
% Solids	88.80%			
Dilution Factor	50			
Soil Weight Preserved	10.00	gm		
MeOH Volume	10	mL		

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4727
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-44 (4-5')**
Lab ID: **00125-56**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	286
Chloromethane	ND	ug/Kg	286
Vinyl chloride	ND	ug/Kg	114
Bromomethane	ND	ug/Kg	286
Trichlorofluoromenthane	ND	ug/Kg	286
Chloroethane	ND	ug/Kg	286
1,1-Dichloroethene	ND	ug/Kg	57
Methylene chloride	49 J	ug/Kg	286
trans-1,2-Dichloroethene	ND	ug/Kg	57
MTBE	ND	ug/Kg	286
1,1-Dichloroethane	ND	ug/Kg	57
2,2-Dichloropropane	ND	ug/Kg	57
cis-1,2-Dichloroethene	ND	ug/Kg	57
Bromochloromethane	ND	ug/Kg	114
Chloroform	ND	ug/Kg	57
1,1,1-Trichloroethane	ND	ug/Kg	57
Carbon tetrachloride	ND	ug/Kg	57
1,1-Dichloropropene	ND	ug/Kg	57
Benzene	ND	ug/Kg	57
1,2-Dichloroethane	ND	ug/Kg	57
Trichloroethene	17 J	ug/Kg	57
1,2-Dichloropropane	ND	ug/Kg	57
Dibromomethane	ND	ug/Kg	114
Bromodichloromethane	ND	ug/Kg	114
cis-1,3-Dichloropropene	ND	ug/Kg	57
Toluene	ND	ug/Kg	57
trans-1,3-Dichloropropene	ND	ug/Kg	57
1,1,2-Trichloroethane	ND	ug/Kg	57
Tetrachloroethene	ND	ug/Kg	57
1,3-Dichloropropane	ND	ug/Kg	57
Dibromochloromethane	ND	ug/Kg	114
1,2-Dibromoethane	ND	ug/Kg	57
Chlorobenzene	ND	ug/Kg	57
1,1,1,2-Tetrachlorethane	ND	ug/Kg	114
Ethylbenzene	ND	ug/Kg	57
m & p-Xylene	ND	ug/Kg	114
o-Xylene	ND	ug/Kg	57

Continued

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Sample ID: PB-01-44 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	57
Bromoform	ND	ug/Kg	114
Isopropylbenzene	ND	ug/Kg	114
Bromobenzene	ND	ug/Kg	114
1,1,2,2-Tetrachloroethane	ND	ug/Kg	114
1,2,3-Trichloropropane	ND	ug/Kg	114
n-Propylbenzene	ND	ug/Kg	114
2-Chlorotoluene	ND	ug/Kg	114
4-Chlorotoluene	ND	ug/Kg	114
1,3,5-Trimethylbenzene	ND	ug/Kg	114
tert-Butylbenzene	ND	ug/Kg	114
1,2,4-Trimethylbenzene	ND	ug/Kg	114
sec-Butylbenzene	ND	ug/Kg	114
1,3-Dichlorobenzene	ND	ug/Kg	114
p-Isopropyltoluene	ND	ug/Kg	114
1,4-Dichlorobenzene	ND	ug/Kg	114
1,2-Dichlorobenzene	ND	ug/Kg	114
n-Butylbenzene	ND	ug/Kg	114
1,2-Dibromo-3-chloropropane	ND	ug/Kg	286
1,2,4-Trichlorobenzene	12 J	ug/Kg	286
Hexachlorobutadiene	ND	ug/Kg	286
1,2,3-Trichlorobenzene	18 J	ug/Kg	286
Acrylonitrite	ND	ug/Kg	286
Hexachloroethane	ND	ug/Kg	114
Methyl iodine	ND	ug/Kg	114
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	286
Acetone	480 J	ug/Kg	1429
Butanone 2- (MEK)	190 J	ug/Kg	286
Carbon Disulfide	ND	ug/Kg	286
Diethyl ether	ND	ug/Kg	571
Hexanone, 2-	ND	ug/Kg	286

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	47		50	94%
1,2-Dichloroethane d4	55		50	110%
Toluene d8	52		50	104%
Bromofluorobenzene	56		50	112%
% Solids	87.50%			
Dilution Factor	50			
Soil Weight Preserved	10.00	gm		
MeOH Volume	10	mL		

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4728
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-44 (8-9')
Lab ID: 00125-57
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	240 J	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	240 J	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichlorocthene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	12 J	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: PB-01-44 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	10 J	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	12 J	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	14 J	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	250 J	ug/Kg	1250
Butanone 2- (MEK)	160 J	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	48		50	96%
1,2-Dichloroethane d4	55		50	110%
Toluene d8	42		50	84%
Bromofluorobenzene	61		50	122%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4729
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-44 (12-13')**
Lab ID: **00125-58**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	282
Chloromethane	ND	ug/Kg	282
Vinyl chloride	ND	ug/Kg	113
Bromomethane	130 J	ug/Kg	282
Trichlorofluoromenthane	ND	ug/Kg	282
Chlorocthane	ND	ug/Kg	282
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	19 J	ug/Kg	282
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	282
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	113
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	19 J	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	113
Bromodichloromethane	ND	ug/Kg	113
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	113
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	113
Ethylbenzene	ND	ug/Kg	56
m & p-Xylene	ND	ug/Kg	113
o-Xylene	ND	ug/Kg	56

Continued

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Sample ID: PB-01-44 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	113
Isopropylbenzene	ND	ug/Kg	113
Bromobenzene	ND	ug/Kg	113
1,1,2,2-Tetrachloroethane	ND	ug/Kg	113
1,2,3-Trichloropropane	ND	ug/Kg	113
n-Propylbenzene	ND	ug/Kg	113
2-Chlorotoluene	ND	ug/Kg	113
4-Chlorotoluene	ND	ug/Kg	113
1,3,5-Trimethylbenzene	ND	ug/Kg	113
tert-Butylbenzene	ND	ug/Kg	113
1,2,4-Trimethylbenzene	ND	ug/Kg	113
sec-Butylbenzene	ND	ug/Kg	113
1,3-Dichlorobenzene	ND	ug/Kg	113
p-Isopropyltoluene	ND	ug/Kg	113
1,4-Dichlorobenzene	ND	ug/Kg	113
1,2-Dichlorobenzene	ND	ug/Kg	113
n-Butylbenzene	ND	ug/Kg	113
1,2-Dibromo-3-chloropropane	ND	ug/Kg	282
1,2,4-Trichlorobenzene	ND	ug/Kg	282
Hexachlorobutadiene	ND	ug/Kg	282
1,2,3-Trichlorobenzene	ND	ug/Kg	282
Acrylonitrite	ND	ug/Kg	282
Hexachloroethane	ND	ug/Kg	113
Methyl iodine	ND	ug/Kg	113
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	282
Acetone	140 J	ug/Kg	1408
Butanone 2- (MEK)	190 J	ug/Kg	282
Carbon Disulfide	ND	ug/Kg	282
Diethyl ether	ND	ug/Kg	563
Hexanone, 2-	ND	ug/Kg	282

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	48	50	96%
1,2-Dichloroethane d4	57	50	114%
Toluene d8	53	50	106%
Bromofluorobenzene	61	50	122%

% Solids	88.80%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
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Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4730
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-42 (8-9')
Lab ID: 00125-50
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	278
Chloromethane	ND	ug/Kg	278
Vinyl chloride	ND	ug/Kg	111
Bromomethane	ND	ug/Kg	278
Trichlorofluoromenthane	ND	ug/Kg	278
Chloroethane	ND	ug/Kg	278
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	ND	ug/Kg	278
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	278
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	111
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	ND	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	111
Bromodichloromethane	ND	ug/Kg	111
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	111
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	111
Ethylbenzene	900	ug/Kg	56
m & p-Xylene	2200	ug/Kg	111
o-Xylene	140	ug/Kg	56

Continued

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Sample ID: PB-01-42 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	111
Isopropylbenzene	ND	ug/Kg	111
Bromobenzene	ND	ug/Kg	111
1,1,2,2-Tetrachloroethane	ND	ug/Kg	111
1,2,3-Trichloropropane	ND	ug/Kg	111
n-Propylbenzene	ND	ug/Kg	111
2-Chlorotoluene	ND	ug/Kg	111
4-Chlorotoluene	ND	ug/Kg	111
1,3,5-Trimethylbenzene	ND	ug/Kg	111
tert-Butylbenzene	ND	ug/Kg	111
1,2,4-Trimethylbenzene	ND	ug/Kg	111
sec-Butylbenzene	ND	ug/Kg	111
1,3-Dichlorobenzene	ND	ug/Kg	111
p-Isopropyltoluene	ND	ug/Kg	111
1,4-Dichlorobenzene	ND	ug/Kg	111
1,2-Dichlorobenzene	ND	ug/Kg	111
n-Butylbenzene	ND	ug/Kg	111
1,2-Dibromo-3-chloropropane	ND	ug/Kg	278
1,2,4-Trichlorobenzene	ND	ug/Kg	278
Hexachlorobutadiene	ND	ug/Kg	278
1,2,3-Trichlorobenzene	ND	ug/Kg	278
Acrylonitrite	ND	ug/Kg	278
Hexachloroethane	ND	ug/Kg	111
Methyl iodine	ND	ug/Kg	111
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	278
Acetone	ND	ug/Kg	1389
Butanone 2- (MEK)	ND	ug/Kg	278
Carbon Disulfide	ND	ug/Kg	278
Diethyl ether	ND	ug/Kg	556
Hexanone, 2-	ND	ug/Kg	278

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	47	50	94%
1,2-Dichloroethane d4	54	50	108%
Toluene d8	53	50	106%
Bromofluorobenzene	53	50	106%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4731
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-45 (6-7')**
Lab ID: **00125-59**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	2400	ug/Kg	50
m & p-Xylene	15000E	ug/Kg	100
o-Xylene	3900	ug/Kg	50

Continued

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Sample ID: PB-01-45 (6-7')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	120	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	650	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	1700	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	9000	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	21000E	ug/Kg	100
sec-Butylbenzene	1700	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	46	50	92%
1,2-Dichloroethane d4	54	50	108%
Toluene d8	50	50	100%
Bromofluorobenzene	61	50	122%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4732
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-45 (10,5-11')
Lab ID: 00125-60
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	288
Chloromethane	ND	ug/Kg	288
Vinyl chloride	ND	ug/Kg	115
Bromomethane	ND	ug/Kg	288
Trichlorofluoromenthane	ND	ug/Kg	288
Chloroethane	ND	ug/Kg	288
1,1-Dichloroethene	ND	ug/Kg	58
Methylene chloride	ND	ug/Kg	288
trans-1,2-Dichloroethene	ND	ug/Kg	58
MTBE	ND	ug/Kg	288
1,1-Dichloroethane	ND	ug/Kg	58
2,2-Dichloropropane	ND	ug/Kg	58
cis-1,2-Dichloroethene	ND	ug/Kg	58
Bromochloromethane	ND	ug/Kg	115
Chloroform	ND	ug/Kg	58
1,1,1-Trichloroethane	ND	ug/Kg	58
Carbon tetrachloride	ND	ug/Kg	58
1,1-Dichloropropene	ND	ug/Kg	58
Benzene	ND	ug/Kg	58
1,2-Dichloroethane	ND	ug/Kg	58
Trichloroethene	ND	ug/Kg	58
1,2-Dichloropropane	ND	ug/Kg	58
Dibromomethane	ND	ug/Kg	115
Bromodichloromethane	ND	ug/Kg	115
cis-1,3-Dichloropropene	ND	ug/Kg	58
Toluene	ND	ug/Kg	58
trans-1,3-Dichloropropene	ND	ug/Kg	58
1,1,2-Trichloroethane	160	ug/Kg	58
Tetrachloroethene	ND	ug/Kg	58
1,3-Dichloropropane	ND	ug/Kg	58
Dibromochloromethane	ND	ug/Kg	115
1,2-Dibromoethane	ND	ug/Kg	58
Chlorobenzene	ND	ug/Kg	58
1,1,1,2-Tetrachlorethane	ND	ug/Kg	115
Ethylbenzene	21000E	ug/Kg	58
m & p-Xylene	50000E	ug/Kg	115
o-Xylene	890	ug/Kg	58

Continued

New Age/Landmark
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Sample ID: PB-01-45 (10,5-11')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	58
Bromoform	ND	ug/Kg	115
Isopropylbenzene	5500	ug/Kg	115
Bromobenzene	ND	ug/Kg	115
1,1,2,2-Tetrachloroethane	ND	ug/Kg	115
1,2,3-Trichloropropane	ND	ug/Kg	115
n-Propylbenzene	15000E	ug/Kg	115
2-Chlorotoluene	ND	ug/Kg	115
4-Chlorotoluene	ND	ug/Kg	115
1,3,5-Trimethylbenzene	37000E	ug/Kg	115
tert-Butylbenzene	1900	ug/Kg	115
1,2,4-Trimethylbenzene	63000E	ug/Kg	115
sec-Butylbenzene	15000E	ug/Kg	115
1,3-Dichlorobenzene	ND	ug/Kg	115
p-Isopropyltoluene	20000E	ug/Kg	115
1,4-Dichlorobenzene	ND	ug/Kg	115
1,2-Dichlorobenzene	ND	ug/Kg	115
n-Butylbenzene	43000E	ug/Kg	115
1,2-Dibromo-3-chloropropane	ND	ug/Kg	288
1,2,4-Trichlorobenzene	ND	ug/Kg	288
Hexachlorobutadiene	ND	ug/Kg	288
1,2,3-Trichlorobenzene	ND	ug/Kg	288
Acrylonitrite	ND	ug/Kg	288
Hexachloroethane	ND	ug/Kg	115
Methyl iodine	ND	ug/Kg	115
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	288
Acetone	ND	ug/Kg	1440
Butanone 2- (MEK)	670	ug/Kg	288
Carbon Disulfide	ND	ug/Kg	288
Diethyl ether	ND	ug/Kg	576
Hexanone, 2-	ND	ug/Kg	288

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	48	50	96%
1,2-Dichloroethane d4	55	50	110%
Toluene d8	56	50	112%
Bromofluorobenzene	64	50	128%

% Solids	86.80%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4707
Analysis Date: 26-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01-49 (11-12') MS**
Lab ID: **00125-78 MS**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	59	0	ug/Kg	50	118%
Chloromethane	63	0	ug/Kg	50	126%
Vinyl chloride	51	0	ug/Kg	50	102%
Bromomethane	19	0	ug/Kg	50	38%
Trichlorofluoromenthane	19	0	ug/Kg	50	38%
Chloroethane	7	0	ug/Kg	50	14%
1,1-Dichloroethene	45	0	ug/Kg	50	90%
Methylene chloride	47	0	ug/Kg	50	94%
trans-1,2-Dichloroethene	50	0	ug/Kg	50	100%
MTBE	54	0	ug/Kg	50	108%
1,1-Dichloroethane	51	0	ug/Kg	50	102%
2,2-Dichloropropane	35	0	ug/Kg	50	70%
cis-1,2-Dichloroethene	50	0	ug/Kg	50	100%
Bromochloromethane	44	0	ug/Kg	50	88%
Chloroform	47	0	ug/Kg	50	94%
1,1,1-Trichloroethane	44	0	ug/Kg	50	88%
Carbon tetrachloride	49	0	ug/Kg	50	98%
1,1-Dichloropropene	52	0	ug/Kg	50	104%
Benzene	50	0	ug/Kg	50	100%
1,2-Dichloroethane	48	0	ug/Kg	50	96%
Trichloroethene	45	0	ug/Kg	50	90%
1,2-Dichloropropane	51	0	ug/Kg	50	102%
Dibromomethane	44	0	ug/Kg	50	88%
Bromodichloromethane	43	0	ug/Kg	50	86%
cis-1,3-Dichloropropene	45	0	ug/Kg	50	90%
Toluene	48	0	ug/Kg	50	96%
trans-1,3-Dichloropropene	40	0	ug/Kg	50	80%
1,1,2-Trichloroethane	47	0	ug/Kg	50	94%
Tetrachloroethene	54	0	ug/Kg	50	108%
1,3-Dichloropropane	50	0	ug/Kg	50	100%
Dibromochloromethane	42	0	ug/Kg	50	84%
1,2-Dibromoethane	44	0	ug/Kg	50	88%
Chlorobenzene	56	0	ug/Kg	50	112%
1,1,1,2-Tetrachlorethane	51	0	ug/Kg	50	102%
Ethylbenzene	59	0	ug/Kg	50	118%
m & p-Xylene	116	0	ug/Kg	100	116%
o-Xylene	58	0	ug/Kg	50	116%

Continued

New Age/Landmark
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Sample ID: PB-01-49 (11-12') MS

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec
Styrene	58	0	ug/Kg	50	116%
Bromoform	41	0	ug/Kg	50	82%
Isopropylbenzene	59	0	ug/Kg	50	118%
Bromobenzene	53	0	ug/Kg	50	106%
1,1,2,2-Tetrachloroethane	49	0	ug/Kg	50	98%
1,2,3-Trichloropropane	51	0	ug/Kg	50	102%
n-Propylbenzene	59	0	ug/Kg	50	118%
2-Chlorotoluene	57	0	ug/Kg	50	114%
4-Chlorotoluene	57	0	ug/Kg	50	114%
1,3,5-Trimethylbenzene	57	0	ug/Kg	50	114%
tert-Butylbenzene	53	0	ug/Kg	50	106%
1,2,4-Trimethylbenzene	54	0	ug/Kg	50	108%
sec-Butylbenzene	58	0	ug/Kg	50	116%
1,3-Dichlorobenzene	51	0	ug/Kg	50	102%
p-Isopropyltoluene	54	0	ug/Kg	50	108%
1,4-Dichlorobenzene	49	0	ug/Kg	50	98%
1,2-Dichlorobenzene	49	0	ug/Kg	50	98%
n-Butylbenzene	56	0	ug/Kg	50	112%
1,2-Dibromo-3-chloropropane	43	0	ug/Kg	50	86%
1,2,4-Trichlorobenzene	52	0	ug/Kg	50	104%
Hexachlorobutadiene	62	0	ug/Kg	50	124%
1,2,3-Trichlorobenzene	52	0	ug/Kg	50	104%
Acrylonitrite		0	ug/Kg	51	0%
Hexachloroethane		0	ug/Kg	52	0%
Methyl iodine		0	ug/Kg	53	0%
Methyl 4,-2-Propanone (MIBK)	46	0	ug/Kg	54	85%
Acetone	49	0	ug/Kg	55	89%
Butanone 2- (MEK)	48	0	ug/Kg	56	86%
Carbon Disulfide	31	0	ug/Kg	57	54%
Diethyl ether	50	0	ug/Kg	58	86%
Hexanone, 2-	46	0	ug/Kg	59	78%

Surrogates		Spike Amount	% Rec
Dibromofluoromethane	45	50	90%
1,2-Dichloroethane d4	48	50	96%
Toluene d8	47	50	94%
Bromofluorobenzene	51	50	102%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4708
Analysis Date: 26-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01-49 (11-12') MSD**
Lab ID: **00125-78 MSD**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec	% RSD
Dichlorodifluoromethane	52	0	ug/Kg	50	104%	-13%
Chloromethane	64	0	ug/Kg	50	128%	2%
Vinyl chloride	49	0	ug/Kg	50	98%	-4%
Bromomethane	24	0	ug/Kg	50	48%	23%
Trichlorofluoromenthane	35	0	ug/Kg	50	70%	59%
Chloroethane	6	0	ug/Kg	50	12%	-15%
1,1-Dichloroethene	41	0	ug/Kg	50	82%	-9%
Methylene chloride	48	0	ug/Kg	50	96%	2%
trans-1,2-Dichloroethene	47	0	ug/Kg	50	94%	-6%
MTBE	56	0	ug/Kg	50	112%	4%
1,1-Dichloroethane	50	0	ug/Kg	50	100%	-2%
2,2-Dichloropropane	35	0	ug/Kg	50	70%	0%
cis-1,2-Dichloroethene	48	0	ug/Kg	50	96%	-4%
Bromochloromethane	46	0	ug/Kg	50	92%	4%
Chloroform	46	0	ug/Kg	50	92%	-2%
1,1,1-Trichloroethane	43	0	ug/Kg	50	86%	-2%
Carbon tetrachloride	45	0	ug/Kg	50	90%	-9%
1,1-Dichloropropene	50	0	ug/Kg	50	100%	-4%
Benzene	49	0	ug/Kg	50	98%	-2%
1,2-Dichloroethane	48	0	ug/Kg	50	96%	0%
Trichloroethene	47	0	ug/Kg	50	94%	4%
1,2-Dichloropropane	52	0	ug/Kg	50	104%	2%
Dibromomethane	46	0	ug/Kg	50	92%	4%
Bromodichloromethane	45	0	ug/Kg	50	90%	5%
cis-1,3-Dichloropropene	48	0	ug/Kg	50	96%	6%
Toluene	51	0	ug/Kg	50	102%	6%
trans-1,3-Dichloropropene	42	0	ug/Kg	50	84%	5%
1,1,2-Trichloroethane	47	0	ug/Kg	50	94%	0%
Tetrachloroethene	59	0	ug/Kg	50	118%	9%
1,3-Dichloropropane	52	0	ug/Kg	50	104%	4%
Dibromochloromethane	41	0	ug/Kg	50	82%	-2%
1,2-Dibromoethane	46	0	ug/Kg	50	92%	4%
Chlorobenzene	56	0	ug/Kg	50	112%	0%
1,1,1,2-Tetrachlorethane	48	0	ug/Kg	50	96%	-6%
Ethylbenzene	60	0	ug/Kg	50	120%	2%
m & p-Xylene	119	0	ug/Kg	100	119%	3%
o-Xylene	59	0	ug/Kg	50	118%	2%

Continued

New Age/Landmark
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Sample ID: PB-01-49 (11-12') MSD

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec	% RSD
Styrene	55	0	ug/Kg	50	110%	-5%
Bromoform	37	0	ug/Kg	50	74%	-10%
Isopropylbenzene	58	0	ug/Kg	50	116%	-2%
Bromobenzene	49	0	ug/Kg	50	98%	-8%
1,1,2,2-Tetrachloroethane	47	0	ug/Kg	50	94%	-4%
1,2,3-Trichloropropane	50	0	ug/Kg	50	100%	-2%
n-Propylbenzene	57	0	ug/Kg	50	114%	-3%
2-Chlorotoluene	53	0	ug/Kg	50	106%	-7%
4-Chlorotoluene	52	0	ug/Kg	50	104%	-9%
1,3,5-Trimethylbenzene	55	0	ug/Kg	50	110%	-4%
tert-Butylhenzene	47	0	ug/Kg	50	94%	-12%
1,2,4-Trimethylbenzene	52	0	ug/Kg	50	104%	-4%
sec-Butylbenzene	52	0	ug/Kg	50	104%	-11%
1,3-Dichlorobenzene	46	0	ug/Kg	50	92%	-10%
p-Isopropyltoluene	50	0	ug/Kg	50	100%	-8%
1,4-Dichlorohenzene	45	0	ug/Kg	50	90%	-9%
1,2-Dichlorobenzene	46	0	ug/Kg	50	92%	-6%
n-Butylbenzene	50	0	ug/Kg	50	100%	-11%
1,2-Dibromo-3-chloropropane	47	0	ug/Kg	50	94%	9%
1,2,4-Trichlorobenzene	55	0	ug/Kg	50	110%	6%
Hexachlorobutadiene	54	0	ug/Kg	50	108%	-14%
1,2,3-Trichlorobenzene	58	0	ug/Kg	50	116%	11%
Acrylonitrite		0	ug/Kg	51	0%	#DIV/0!
Hexachloroethane		0	ug/Kg	52	0%	#DIV/0!
Methyl iodine		0	ug/Kg	53	0%	#DIV/0!
Methyl 4,-2-Propanone (MIBK)	46	0	ug/Kg	54	85%	0%
Acetone	49	0	ug/Kg	55	89%	0%
Butanone 2- (MEK)	51	0	ug/Kg	56	91%	6%
Carbon Disulfide	31	0	ug/Kg	57	54%	0%
Diethyl ether	48	0	ug/Kg	58	83%	-4%
Hexanone, 2-	45	0	ug/Kg	59	76%	-2%

Surrogates			Spike Amount	% Rec	% RSD
Dibromofluoromethane	43		50	86%	-5%
1,2-Dichloroethane d4	45		50	90%	-6%
Toluene d8	47		50	94%	0%
Bromofluorobenzene	49		50	98%	-4%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4686
Analysis Date: 25-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: CCV @ 50 NG
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	62	ug/L	50	124%
Chloromethane	69	ug/L	50	138%
Vinyl chloride	56	ug/L	50	112%
Bromomethane	42	ug/L	50	84%
Trichlorofluoromenthane	40	ug/L	50	80%
Chloroethane	20	ug/L	50	40%
1,1-Dichloroethene	43	ug/L	50	86%
Methylene chloride	40	ug/L	50	80%
trans-1,2-Dichloroethene	33	ug/L	50	66%
MTBE	44	ug/L	50	88%
1,1-Dichloroethane	46	ug/L	50	92%
2,2-Dichloropropane	35	ug/L	50	70%
cis-1,2-Dichloroethene	35	ug/L	50	70%
Bromochloromethane	32	ug/L	50	64%
Chloroform	36	ug/L	50	72%
1,1,1-Trichloroethane	42	ug/L	50	84%
Carbon tetrachloride	36	ug/L	50	72%
1,1-Dichloropropene	39	ug/L	50	78%
Benzene	39	ug/L	50	78%
1,2-Dichloroethane	38	ug/L	50	76%
Trichloroethene	52	ug/L	50	104%
1,2-Dichloropropane	44	ug/L	50	88%
Dibromomethane	36	ug/L	50	72%
Bromodichloromethane	32	ug/L	50	64%
cis-1,3-Dichloropropene	41	ug/L	50	82%
Toluene	42	ug/L	50	84%
trans-1,3-Dichloropropene	49	ug/L	50	98%
1,1,2-Trichloroethane	43	ug/L	50	86%
Tetrachloroethene	42	ug/L	50	84%
1,3-Dichloropropane	45	ug/L	50	90%
Dibromochloromethane	32	ug/L	50	64%
1,2-Dibromoethane	37	ug/L	50	74%
Chlorobenzene	51	ug/L	50	102%
1,1,1,2-Tetrachlorethane	41	ug/L	50	82%
Ethylbenzene	55	ug/L	50	110%
m & p-Xylene	109	ug/L	100	109%
o-Xylene	54	ug/L	50	108%

Continued

New Age/Landmark
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Sample ID: CCV @ 50 NG

Continued	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Styrene	55	ug/L	50	110%
Bromoform	29	ug/L	50	58%
Isopropylbenzene	58	ug/L	50	116%
Bromobenzene	50	ug/L	50	100%
1,1,2,2-Tetrachloroethane	47	ug/L	50	94%
1,2,3-Trichloropropane	53	ug/L	50	106%
n-Propylbenzene	58	ug/L	50	116%
2-Chlorotoluene	56	ug/L	50	112%
4-Chlorotoluene	57	ug/L	50	114%
1,3,5-Trimethylbenzene	57	ug/L	50	114%
tert-Butylbenzene	53	ug/L	50	106%
1,2,4-Trimethylbenzene	55	ug/L	50	110%
sec-Butylbenzene	58	ug/L	50	116%
1,3-Dichlorobenzene	49	ug/L	50	98%
p-Isopropyltoluene	55	ug/L	50	110%
1,4-Dichlorobenzene	47	ug/L	50	94%
1,2-Dichlorobenzene	46	ug/L	50	92%
n-Butylbenzene	56	ug/L	50	112%
1,2-Dibromo-3-chloropropane	37	ug/L	50	74%
1,2,4-Trichlorobenzene	34	ug/L	50	68%
Hexachlorobutadiene	40	ug/L	50	80%
1,2,3-Trichlorobenzene	28	ug/L	50	56%
Acrylonitrite		ug/L	50	0%
Hexachloroethane		ug/L	50	0%
Methyl iodine		ug/L	50	0%
Methyl 4,-2-Propanone (MIBK)	49	ug/L	50	98%
Acetone	57	ug/L	50	114%
Butanone 2- (MEK)	43	ug/L	50	86%
Carbon Disulfide	45	ug/L	50	90%
Diethyl ether	54	ug/L	50	108%
Hexanone, 2-	59	ug/L	50	118%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	36	ug/L	50	72%
1,2-Dichloroethane d4	40	ug/L	50	80%
Toluene d8	44	ug/L	50	88%
Bromofluorobenzene	54	ug/L	50	108%

% Solids	
Dilution Factor	1
Soil Weight Preserved	
MeOH Volume	

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4693
Analysis Date: 25-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: CCV @ 50 NG
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	65	ug/L	50	130%
Chloromethane	64	ug/L	50	128%
Vinyl chloride	51	ug/L	50	102%
Bromomethane	48	ug/L	50	96%
Trichlorofluoromenthane	41	ug/L	50	82%
Chloroethane	33	ug/L	50	66%
1,1-Dichloroethene	44	ug/L	50	88%
Methylene chloride	36	ug/L	50	72%
trans-1,2-Dichloroethene	36	ug/L	50	72%
MTBE	43	ug/L	50	86%
1,1-Dichloroethane	52	ug/L	50	104%
2,2-Dichloropropane	36	ug/L	50	72%
cis-1,2-Dichloroethene	38	ug/L	50	76%
Bromochloromethane	35	ug/L	50	70%
Chloroform	43	ug/L	50	86%
1,1,1-Trichloroethane	35	ug/L	50	70%
Carbon tetrachloride	39	ug/L	50	78%
1,1-Dichloropropene	42	ug/L	50	84%
Benzene	39	ug/L	50	78%
1,2-Dichloroethane	43	ug/L	50	86%
Trichloroethene	47	ug/L	50	94%
1,2-Dichloropropane	41	ug/L	50	82%
Dibromomethane	47	ug/L	50	94%
Bromodichloromethane	38	ug/L	50	76%
cis-1,3-Dichloropropene	46	ug/L	50	92%
Toluene	48	ug/L	50	96%
trans-1,3-Dichloropropene	54	ug/L	50	108%
1,1,2-Trichloroethane	47	ug/L	50	94%
Tetrachloroethene	46	ug/L	50	92%
1,3-Dichloropropane	49	ug/L	50	98%
Dibromochloromethane	35	ug/L	50	70%
1,2-Dibromoethane	39	ug/L	50	78%
Chlorobenzene	39	ug/L	50	78%
1,1,1,2-Tetrachlorethane	31	ug/L	50	62%
Ethylbenzene	55	ug/L	50	110%
m & p-Xylene	82	ug/L	100	82%
o-Xylene	46	ug/L	50	92%

Continued

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Sample ID: CCV @ 50 NG

Continued	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Styrene	45	ug/L	50	90%
Bromoform	25	ug/L	50	50%
Isopropylbenzene	50	ug/L	50	100%
Bromobenzene	45	ug/L	50	90%
1,1,2,2-Tetrachloroethane	42	ug/L	50	84%
1,2,3-Trichloropropane	47	ug/L	50	94%
n-Propylbenzene	55	ug/L	50	110%
2-Chlorotoluene	53	ug/L	50	106%
4-Chlorotoluene	54	ug/L	50	108%
1,3,5-Trimethylbenzene	55	ug/L	50	110%
tert-Butylbenzene	53	ug/L	50	106%
1,2,4-Trimethylbenzene	54	ug/L	50	108%
sec-Butylbenzene	59	ug/L	50	118%
1,3-Dichlorobenzene	50	ug/L	50	100%
p-Isopropyltoluene	57	ug/L	50	114%
1,4-Dichlorobenzene	48	ug/L	50	96%
1,2-Dichlorobenzene	48	ug/L	50	96%
n-Butylbenzene	63	ug/L	50	126%
1,2-Dibromo-3-chloropropane	36	ug/L	50	72%
1,2,4-Trichlorobenzene	51	ug/L	50	102%
Hexachlorobutadiene	59	ug/L	50	118%
1,2,3-Trichlorobenzene	49	ug/L	50	98%
Acrylonitrite		ug/L	50	0%
Hexachloroethane		ug/L	50	0%
Methyl iodine		ug/L	50	0%
Methyl 4,-2-Propanone (MIBK)	45	ug/L	50	90%
Acetone	44	ug/L	50	88%
Butanone 2- (MEK)	43	ug/L	50	86%
Carbon Disulfide	33	ug/L	50	66%
Diethyl ether	46	ug/L	50	92%
Hexanone, 2-	52	ug/L	50	104%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	40	ug/L	50	80%
1,2-Dichloroethane d4	42	ug/L	50	84%
Toluene d8	53	ug/L	50	106%
Bromofluorobenzene	48	ug/L	50	96%

% Solids	
Dilution Factor	1
Soil Weight Preserved	
MeOH Volume	

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4687
Analysis Date: 25-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: Method Blank
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: Method Blank

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	49	ug/Kg	50	98%
1,2-Dichloroethane d4	51	ug/Kg	50	102%
Toluene d8	52	ug/Kg	50	104%
Bromofluorobenzene	59	ug/Kg	50	118%

% Solids	100.00%
Dilution Factor	50
Soil Weight Preserved	10.00
MeOH Volume	10

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4695
Analysis Date: 25-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: **Method Blank**
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: Method Blank

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	46	ug/Kg	50	92%
1,2-Dichloroethane d4	51	ug/Kg	50	102%
Toluene d8	48	ug/Kg	50	96%
Bromofluorobenzene	61	ug/Kg	50	122%

% Solids	100.00%
Dilution Factor	50
Soil Weight Preserved	10.00
MeOH Volume	10

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4738
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-45 (12-13')
Lab ID: 00125-61
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	333
Chloromethane	ND	ug/Kg	333
Vinyl chloride	ND	ug/Kg	133
Bromomethane	ND	ug/Kg	333
Trichlorofluoromenthane	ND	ug/Kg	333
Chloroethane	ND	ug/Kg	333
1,1-Dichloroethene	ND	ug/Kg	67
Methylene chloride	ND	ug/Kg	333
trans-1,2-Dichloroethene	ND	ug/Kg	67
MTBE	ND	ug/Kg	333
1,1-Dichloroethane	ND	ug/Kg	67
2,2-Dichloropropane	ND	ug/Kg	67
cis-1,2-Dichloroethene	ND	ug/Kg	67
Bromochloromethane	ND	ug/Kg	133
Chloroform	ND	ug/Kg	67
1,1,1-Trichloroethane	ND	ug/Kg	67
Carbon tetrachloride	ND	ug/Kg	67
1,1-Dichloropropene	ND	ug/Kg	67
Benzene	100	ug/Kg	67
1,2-Dichloroethane	ND	ug/Kg	67
Trichloroethene	ND	ug/Kg	67
1,2-Dichloropropane	ND	ug/Kg	67
Dibromomethane	ND	ug/Kg	133
Bromodichloromethane	ND	ug/Kg	133
cis-1,3-Dichloropropene	ND	ug/Kg	67
Toluene	ND	ug/Kg	67
trans-1,3-Dichloropropene	ND	ug/Kg	67
1,1,2-Trichloroethane	ND	ug/Kg	67
Tetrachloroethene	ND	ug/Kg	67
1,3-Dichloropropane	ND	ug/Kg	67
Dibromochloromethane	ND	ug/Kg	133
1,2-Dibromoethane	ND	ug/Kg	67
Chlorobenzene	ND	ug/Kg	67
1,1,1,2-Tetrachlorethane	ND	ug/Kg	133
Ethylbenzene	89	ug/Kg	67
m & p-Xylene	280	ug/Kg	133
o-Xylene	100	ug/Kg	67

Continued

New Age/Landmark
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Sample ID: PB-01-45 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	67
Bromoform	ND	ug/Kg	133
Isopropylbenzene	ND	ug/Kg	133
Bromobenzene	ND	ug/Kg	133
1,1,2,2-Tetrachloroethane	ND	ug/Kg	133
1,2,3-Trichloropropane	ND	ug/Kg	133
n-Propylbenzene	ND	ug/Kg	133
2-Chlorotoluene	ND	ug/Kg	133
4-Chlorotoluene	ND	ug/Kg	133
1,3,5-Trimethylbenzene	ND	ug/Kg	133
tert-Butylbenzene	ND	ug/Kg	133
1,2,4-Trimethylbenzene	160	ug/Kg	133
sec-Butylbenzene	ND	ug/Kg	133
1,3-Dichlorobenzene	ND	ug/Kg	133
p-Isopropyltoluene	ND	ug/Kg	133
1,4-Dichlorobenzene	ND	ug/Kg	133
1,2-Dichlorobenzene	ND	ug/Kg	133
n-Butylbenzene	ND	ug/Kg	133
1,2-Dibromo-3-chloropropane	ND	ug/Kg	333
1,2,4-Trichlorobenzene	ND	ug/Kg	333
Hexachlorobutadiene	ND	ug/Kg	333
1,2,3-Trichlorobenzene	ND	ug/Kg	333
Acrylonitrite	ND	ug/Kg	333
Hexachloroethane	ND	ug/Kg	133
Methyl iodine	ND	ug/Kg	133
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	333
Acetone	ND	ug/Kg	1667
Butanone 2- (MEK)	ND	ug/Kg	333
Carbon Disulfide	ND	ug/Kg	333
Diethyl ether	ND	ug/Kg	667
Hexanone, 2-	ND	ug/Kg	333

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	55	50	110%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	54	50	108%
Bromofluorobenzene	60	50	120%

% Solids	75.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4739
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-45 (14-15')
Lab ID: 00125-62
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	269
Chloromethane	ND	ug/Kg	269
Vinyl chloride	ND	ug/Kg	108
Bromomethane	ND	ug/Kg	269
Trichlorofluoromenthane	ND	ug/Kg	269
Chloroethane	ND	ug/Kg	269
1,1-Dichloroethene	ND	ug/Kg	54
Methylene chloride	73 J	ug/Kg	269
trans-1,2-Dichloroethene	ND	ug/Kg	54
MTBE	ND	ug/Kg	269
1,1-Dichloroethane	ND	ug/Kg	54
2,2-Dichloropropane	ND	ug/Kg	54
cis-1,2-Dichloroethene	ND	ug/Kg	54
Bromochloromethane	ND	ug/Kg	108
Chloroform	ND	ug/Kg	54
1,1,1-Trichloroethane	ND	ug/Kg	54
Carbon tetrachloride	ND	ug/Kg	54
1,1-Dichloropropene	ND	ug/Kg	54
Benzene	ND	ug/Kg	54
1,2-Dichloroethane	ND	ug/Kg	54
Trichloroethene	15 J	ug/Kg	54
1,2-Dichloropropane	ND	ug/Kg	54
Dibromomethane	ND	ug/Kg	108
Bromodichloromethane	ND	ug/Kg	108
cis-1,3-Dichloropropene	ND	ug/Kg	54
Toluene	ND	ug/Kg	54
trans-1,3-Dichloropropene	ND	ug/Kg	54
1,1,2-Trichloroethane	ND	ug/Kg	54
Tetrachloroethene	ND	ug/Kg	54
1,3-Dichloropropane	ND	ug/Kg	54
Dibromochloromethane	ND	ug/Kg	108
1,2-Dibromoethane	ND	ug/Kg	54
Chlorobenzene	ND	ug/Kg	54
1,1,1,2-Tetrachlorethane	ND	ug/Kg	108
Ethylbenzene	12 J	ug/Kg	54
m & p-Xylene	19 J	ug/Kg	108
o-Xylene	12 J	ug/Kg	54

Continued

New Age/Landmark
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Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01-45 (14-15')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	54
Bromoform	ND	ug/Kg	108
Isopropylbenzene	ND	ug/Kg	108
Bromobenzene	ND	ug/Kg	108
1,1,2,2-Tetrachloroethane	ND	ug/Kg	108
1,2,3-Trichloropropane	ND	ug/Kg	108
n-Propylbenzene	5.4 J	ug/Kg	108
2-Chlorotoluene	ND	ug/Kg	108
4-Chlorotoluene	ND	ug/Kg	108
1,3,5-Trimethylbenzene	10 J	ug/Kg	108
tert-Butylbenzene	ND	ug/Kg	108
1,2,4-Trimethylbenzene	38 J	ug/Kg	108
sec-Butylbenzene	5.4 J	ug/Kg	108
1,3-Dichlorobenzene	ND	ug/Kg	108
p-Isopropyltoluene	9.2 J	ug/Kg	108
1,4-Dichlorobenzene	ND	ug/Kg	108
1,2-Dichlorobenzene	ND	ug/Kg	108
n-Butylbenzene	14 J	ug/Kg	108
1,2-Dibromo-3-chloropropane	ND	ug/Kg	269
1,2,4-Trichlorobenzene	ND	ug/Kg	269
Hexachlorobutadiene	ND	ug/Kg	269
1,2,3-Trichlorobenzene	ND	ug/Kg	269
Acrylonitrite	ND	ug/Kg	269
Hexachloroethane	ND	ug/Kg	108
Methyl iodine	ND	ug/Kg	108
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	269
Acetone	290 J	ug/Kg	1347
Butanone 2- (MEK)	90 J	ug/Kg	269
Carbon Disulfide	ND	ug/Kg	269
Diethyl ether	ND	ug/Kg	539
Hexanone, 2-	ND	ug/Kg	269

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	55		50	110%
1,2-Dichloroethane d4	49		50	98%
Toluene d8	54		50	108%
Bromofluorobenzene	66X		50	#VALUE!

% Solids	92.80%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4740
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-46 (4-5')
Lab ID: 00125-63
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	54 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	ND	ug/Kg	63
m & p-Xylene	82 J	ug/Kg	125
o-Xylene	32 J	ug/Kg	63

Continued

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Sample ID: PB-01-46 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	ND	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	56 J	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	96 J	ug/Kg	125
sec-Butylbenzene	ND	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	ND	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	ND	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	ND	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	ND	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	160 J	ug/Kg	1563
Butanone 2- (MEK)	ND	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	54		50	108%
1,2-Dichloroethane d4	50		50	100%
Toluene d8	53		50	106%
Bromofluorobenzene	58		50	116%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4741
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-46 (10-11')
Lab ID: 00125-64
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	296
Chloromethane	ND	ug/Kg	296
Vinyl chloride	ND	ug/Kg	118
Bromomethane	ND	ug/Kg	296
Trichlorofluoromenthane	ND	ug/Kg	296
Chloroethane	ND	ug/Kg	296
1,1-Dichloroethene	ND	ug/Kg	59
Methylene chloride	ND	ug/Kg	296
trans-1,2-Dichloroethene	ND	ug/Kg	59
MTBE	ND	ug/Kg	296
1,1-Dichloroethane	ND	ug/Kg	59
2,2-Dichloropropane	ND	ug/Kg	59
cis-1,2-Dichloroethene	ND	ug/Kg	59
Bromochloromethane	ND	ug/Kg	118
Chloroform	ND	ug/Kg	59
1,1,1-Trichloroethane	ND	ug/Kg	59
Carbon tetrachloride	ND	ug/Kg	59
1,1-Dichloropropene	ND	ug/Kg	59
Benzene	ND	ug/Kg	59
1,2-Dichloroethane	ND	ug/Kg	59
Trichloroethene	ND	ug/Kg	59
1,2-Dichloropropane	ND	ug/Kg	59
Dibromomethane	ND	ug/Kg	118
Bromodichloromethane	ND	ug/Kg	118
cis-1,3-Dichloropropene	ND	ug/Kg	59
Toluene	ND	ug/Kg	59
trans-1,3-Dichloropropene	ND	ug/Kg	59
1,1,2-Trichloroethane	ND	ug/Kg	59
Tetrachloroethene	ND	ug/Kg	59
1,3-Dichloropropane	ND	ug/Kg	59
Dibromochloromethane	ND	ug/Kg	118
1,2-Dibromoethane	ND	ug/Kg	59
Chlorobenzene	ND	ug/Kg	59
1,1,1,2-Tetrachlorethane	ND	ug/Kg	118
Ethylbenzene	ND	ug/Kg	59
m & p-Xylene	140	ug/Kg	118
o-Xylene	70	ug/Kg	59

Continued

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Sample ID: PB-01-46 (10-11')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	59
Bromoform	ND	ug/Kg	118
Isopropylbenzene	ND	ug/Kg	118
Bromobenzene	ND	ug/Kg	118
1,1,2,2-Tetrachloroethane	ND	ug/Kg	118
1,2,3-Trichloropropane	ND	ug/Kg	118
n-Propylbenzene	ND	ug/Kg	118
2-Chlorotoluene	ND	ug/Kg	118
4-Chlorotoluene	ND	ug/Kg	118
1,3,5-Trimethylbenzene	ND	ug/Kg	118
tert-Butylbenzene	ND	ug/Kg	118
1,2,4-Trimethylbenzene	ND	ug/Kg	118
sec-Butylbenzene	ND	ug/Kg	118
1,3-Dichlorobenzene	ND	ug/Kg	118
p-Isopropyltoluene	ND	ug/Kg	118
1,4-Dichlorobenzene	ND	ug/Kg	118
1,2-Dichlorobenzene	ND	ug/Kg	118
n-Butylbenzene	ND	ug/Kg	118
1,2-Dibromo-3-chloropropane	ND	ug/Kg	296
1,2,4-Trichlorobenzene	ND	ug/Kg	296
Hexachlorobutadiene	ND	ug/Kg	296
1,2,3-Trichlorobenzene	ND	ug/Kg	296
Acrylonitrite	ND	ug/Kg	296
Hexachloroethane	ND	ug/Kg	118
Methyl iodine	ND	ug/Kg	118
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	296
Acetone	ND	ug/Kg	1478
Butanone 2- (MEK)	ND	ug/Kg	296
Carbon Disulfide	ND	ug/Kg	296
Diethyl ether	ND	ug/Kg	591
Hexanone, 2-	ND	ug/Kg	296

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	55	50	110%
1,2-Dichloroethane d4	50	50	100%
Toluene d8	55	50	110%
Bromofluorobenzene	57	50	114%

% Solids	84.60%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL
		X=1SURR HIGH

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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667 West Main Street
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Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4742
Analysis Date: 29-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-46 (17-18')
Lab ID: 00125-65
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	278
Chloromethane	ND	ug/Kg	278
Vinyl chloride	ND	ug/Kg	111
Bromomethane	ND	ug/Kg	278
Trichlorofluoromenthane	ND	ug/Kg	278
Chloroethane	ND	ug/Kg	278
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	ND	ug/Kg	278
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	278
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	111
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	ND	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	111
Bromodichloromethane	ND	ug/Kg	111
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	111
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	111
Ethylbenzene	ND	ug/Kg	56
m & p-Xylene	68 J	ug/Kg	111
o-Xylene	ND	ug/Kg	56

Continued

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Sample ID: PB-01-46 (17-18')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	111
Isopropylbenzene	ND	ug/Kg	111
Bromobenzene	ND	ug/Kg	111
1,1,2,2-Tetrachloroethane	ND	ug/Kg	111
1,2,3-Trichloropropane	ND	ug/Kg	111
n-Propylbenzene	ND	ug/Kg	111
2-Chlorotoluene	ND	ug/Kg	111
4-Chlorotoluene	ND	ug/Kg	111
1,3,5-Trimethylbenzene	36 J	ug/Kg	111
tert-Butylbenzene	ND	ug/Kg	111
1,2,4-Trimethylbenzene	92 J	ug/Kg	111
sec-Butylbenzene	ND	ug/Kg	111
1,3-Dichlorobenzene	ND	ug/Kg	111
p-Isopropyltoluene	ND	ug/Kg	111
1,4-Dichlorobenzene	ND	ug/Kg	111
1,2-Dichlorobenzene	ND	ug/Kg	111
n-Butylbenzene	40 J	ug/Kg	111
1,2-Dibromo-3-chloropropane	ND	ug/Kg	278
1,2,4-Trichlorobenzene	ND	ug/Kg	278
Hexachlorobutadiene	ND	ug/Kg	278
1,2,3-Trichlorobenzene	ND	ug/Kg	278
Acrylonitrite	ND	ug/Kg	278
Hexachloroethane	ND	ug/Kg	111
Methyl iodine	ND	ug/Kg	111
Methyl 4,-2-Propanone (MIBK)	71 J	ug/Kg	278
Acetone	660 J	ug/Kg	1389
Butanone 2- (MEK)	180 J	ug/Kg	278
Carbon Disulfide	ND	ug/Kg	278
Diethyl ether	ND	ug/Kg	556
Hexanone, 2-	ND	ug/Kg	278

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	57	50	114%
1,2-Dichloroethane d4	52	50	104%
Toluene d8	56	50	112%
Bromofluorobenzene	57	50	114%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4743
Analysis Date: 30-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-46 (20-21')
Lab ID: 00125-66
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	289
Chloromethane	ND	ug/Kg	289
Vinyl chloride	ND	ug/Kg	115
Bromomethane	ND	ug/Kg	289
Trichlorofluoromenthane	ND	ug/Kg	289
Chloroethane	ND	ug/Kg	289
1,1-Dichloroethene	ND	ug/Kg	58
Methylene chloride	ND	ug/Kg	289
trans-1,2-Dichloroethene	ND	ug/Kg	58
MTBE	ND	ug/Kg	289
1,1-Dichloroethane	ND	ug/Kg	58
2,2-Dichloropropane	ND	ug/Kg	58
cis-1,2-Dichloroethene	ND	ug/Kg	58
Bromochloromethane	ND	ug/Kg	115
Chloroform	ND	ug/Kg	58
1,1,1-Trichloroethane	ND	ug/Kg	58
Carbon tetrachloride	ND	ug/Kg	58
1,1-Dichloropropene	ND	ug/Kg	58
Benzene	ND	ug/Kg	58
1,2-Dichloroethane	ND	ug/Kg	58
Trichloroethene	ND	ug/Kg	58
1,2-Dichloropropane	ND	ug/Kg	58
Dibromomethane	ND	ug/Kg	115
Bromodichloromethane	ND	ug/Kg	115
cis-1,3-Dichloropropene	ND	ug/Kg	58
Toluene	ND	ug/Kg	58
trans-1,3-Dichloropropene	ND	ug/Kg	58
1,1,2-Trichloroethane	ND	ug/Kg	58
Tetrachloroethene	ND	ug/Kg	58
1,3-Dichloropropane	ND	ug/Kg	58
Dibromochloromethane	ND	ug/Kg	115
1,2-Dibromoethane	ND	ug/Kg	58
Chlorobenzene	ND	ug/Kg	58
1,1,1,2-Tetrachlorethane	ND	ug/Kg	115
Ethylbenzene	ND	ug/Kg	58
m & p-Xylene	120	ug/Kg	115
o-Xylene	ND	ug/Kg	58

Continued

New Age/Landmark
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Sample ID: PB-01-46 (20-21')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	58
Bromoform	ND	ug/Kg	115
Isopropylbenzene	ND	ug/Kg	115
Bromobenzene	ND	ug/Kg	115
1,1,2,2-Tetrachloroethane	ND	ug/Kg	115
1,2,3-Trichloropropane	ND	ug/Kg	115
n-Propylbenzene	ND	ug/Kg	115
2-Chlorotoluene	ND	ug/Kg	115
4-Chlorotoluene	ND	ug/Kg	115
1,3,5-Trimethylbenzene	ND	ug/Kg	115
tert-Butylbenzene	ND	ug/Kg	115
1,2,4-Trimethylbenzene	290	ug/Kg	115
sec-Butylbenzene	ND	ug/Kg	115
1,3-Dichlorobenzene	ND	ug/Kg	115
p-Isopropyltoluene	ND	ug/Kg	115
1,4-Dichlorobenzene	ND	ug/Kg	115
1,2-Dichlorobenzene	ND	ug/Kg	115
n-Butylbenzene	ND	ug/Kg	115
1,2-Dibromo-3-chloropropane	ND	ug/Kg	289
1,2,4-Trichlorobenzene	ND	ug/Kg	289
Hexachlorobutadiene	ND	ug/Kg	289
1,2,3-Trichlorobenzene	ND	ug/Kg	289
Acrylonitrite	ND	ug/Kg	289
Hexachloroethane	ND	ug/Kg	115
Methyl iodine	ND	ug/Kg	115
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	289
Acetone	ND	ug/Kg	1443
Butanone 2- (MEK)	ND	ug/Kg	289
Carbon Disulfide	ND	ug/Kg	289
Diethyl ether	ND	ug/Kg	577
Hexanone, 2-	ND	ug/Kg	289

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	57	50	114%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	55	50	110%
Bromofluorobenzene	57	50	114%

% Solids	86.60%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4744
Analysis Date: 30-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-47 (4-5')**
Lab ID: **00125-69**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	272
Chloromethane	160 J	ug/Kg	272
Vinyl chloride	ND	ug/Kg	109
Bromomethane	ND	ug/Kg	272
Trichlorofluoromenthane	40 J	ug/Kg	272
Chloroethane	ND	ug/Kg	272
1,1-Dichloroethene	ND	ug/Kg	54
Methylene chloride	83 J	ug/Kg	272
trans-1,2-Dichloroethene	ND	ug/Kg	54
MTBE	ND	ug/Kg	272
1,1-Dichloroethane	ND	ug/Kg	54
2,2-Dichloropropane	ND	ug/Kg	54
cis-1,2-Dichloroethene	ND	ug/Kg	54
Bromochloromethane	ND	ug/Kg	109
Chloroform	ND	ug/Kg	54
1,1,1-Trichloroethane	ND	ug/Kg	54
Carbon tetrachloride	ND	ug/Kg	54
1,1-Dichloropropene	ND	ug/Kg	54
Benzene	ND	ug/Kg	54
1,2-Dichloroethane	ND	ug/Kg	54
Trichloroethene	32 J	ug/Kg	54
1,2-Dichloropropane	ND	ug/Kg	54
Dibromomethane	ND	ug/Kg	109
Bromodichloromethane	ND	ug/Kg	109
cis-1,3-Dichloropropene	ND	ug/Kg	54
Toluene	ND	ug/Kg	54
trans-1,3-Dichloropropene	ND	ug/Kg	54
1,1,2-Trichloroethane	ND	ug/Kg	54
Tetrachloroethene	ND	ug/Kg	54
1,3-Dichloropropane	ND	ug/Kg	54
Dibromochloromethane	ND	ug/Kg	109
1,2-Dibromoethane	ND	ug/Kg	54
Chlorobenzene	8.2 J	ug/Kg	54
1,1,1,2-Tetrachlorethane	ND	ug/Kg	109
Ethylbenzene	13 J	ug/Kg	54
m & p-Xylene	ND	ug/Kg	109
o-Xylene	ND	ug/Kg	54

Continued

New Age/Landmark
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Sample ID: PB-01-47 (4-5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	54
Bromoform	ND	ug/Kg	109
Isopropylbenzene	ND	ug/Kg	109
Bromobenzene	ND	ug/Kg	109
1,1,2,2-Tetrachloroethane	30 J	ug/Kg	109
1,2,3-Trichloropropane	35 J	ug/Kg	109
n-Propylbenzene	14 J	ug/Kg	109
2-Chlorotoluene	14 J	ug/Kg	109
4-Chlorotolucne	15 J	ug/Kg	109
1,3,5-Trimethylbenzene	14 J	ug/Kg	109
tert-Butylbenzene	9.8 J	ug/Kg	109
1,2,4-Trimethylbenzene	21 J	ug/Kg	109
sec-Butylbenzene	14 J	ug/Kg	109
1,3-Dichlorobenzene	18 J	ug/Kg	109
p-Isopropyltoluene	19 J	ug/Kg	109
1,4-Dichlorobenzene	18 J	ug/Kg	109
1,2-Dichlorobenzene	14 J	ug/Kg	109
n-Butylbenzene	23 J	ug/Kg	109
1,2-Dibromo-3-chloropropane	69 J	ug/Kg	272
1,2,4-Trichlorobenzene	38 J	ug/Kg	272
Hexachlorobutadiene	ND	ug/Kg	272
1,2,3-Trichlorobenzene	40 J	ug/Kg	272
Acrylonitrite	ND	ug/Kg	272
Hexachloroethane	ND	ug/Kg	109
Methyl iodine	ND	ug/Kg	109
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	272
Acetone	370 J	ug/Kg	1360
Butanone 2- (MEK)	160 J	ug/Kg	272
Carbon Disulfidc	ND	ug/Kg	272
Diethyl ether	ND	ug/Kg	544
Hexanone, 2-	ND	ug/Kg	272

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	57	50	114%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	54	50	108%
Bromofluorobenzene	56	50	112%

% Solids	91.90%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4745
Analysis Date: 30-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-47 (8-9')**
Lab ID: **00125-70**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	292
Chloromethane	97 J	ug/Kg	292
Vinyl chloride	ND	ug/Kg	117
Bromomethane	ND	ug/Kg	292
Trichlorofluoromenthane	58 J	ug/Kg	292
Chloroethane	ND	ug/Kg	292
1,1-Dichloroethene	16 J	ug/Kg	58
Methylene chloride	78 J	ug/Kg	292
trans-1,2-Dichloroethene	ND	ug/Kg	58
MTBE	ND	ug/Kg	292
1,1-Dichloroethane	ND	ug/Kg	58
2,2-Dichloropropane	ND	ug/Kg	58
cis-1,2-Dichloroethene	ND	ug/Kg	58
Bromochloromethane	ND	ug/Kg	117
Chloroform	ND	ug/Kg	58
1,1,1-Trichloroethane	ND	ug/Kg	58
Carbon tetrachloride	ND	ug/Kg	58
1,1-Dichloropropene	ND	ug/Kg	58
Benzene	ND	ug/Kg	58
1,2-Dichloroethane	ND	ug/Kg	58
Trichloroethene	24 J	ug/Kg	58
1,2-Dichloropropane	ND	ug/Kg	58
Dibromomethane	ND	ug/Kg	117
Bromodichloromethane	ND	ug/Kg	117
cis-1,3-Dichloropropene	ND	ug/Kg	58
Toluene	ND	ug/Kg	58
trans-1,3-Dichloropropene	ND	ug/Kg	58
1,1,2-Trichloroethane	ND	ug/Kg	58
Tetrachloroethene	ND	ug/Kg	58
1,3-Dichloropropane	ND	ug/Kg	58
Dibromochloromethane	ND	ug/Kg	117
1,2-Dibromoethane	ND	ug/Kg	58
Chlorobenzene	13 J	ug/Kg	58
1,1,1,2-Tetrachlorethane	ND	ug/Kg	117
Ethylbenzene	16 J	ug/Kg	58
m & p-Xylene	ND	ug/Kg	117
o-Xylene	13 J	ug/Kg	58

Continued

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Sample ID: PB-01-47 (8-9')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	15 J	ug/Kg	58
Bromoform	ND	ug/Kg	117
Isopropylbenzene	ND	ug/Kg	117
Bromobenzene	ND	ug/Kg	117
1,1,2,2-Tetrachloroethane	ND	ug/Kg	117
1,2,3-Trichloropropane	ND	ug/Kg	117
n-Propylbenzene	21 J	ug/Kg	117
2-Chlorotoluene	19 J	ug/Kg	117
4-Chlorotoluene	20 J	ug/Kg	117
1,3,5-Trimethylbenzene	22 J	ug/Kg	117
tert-Butylbenzene	6.4 J	ug/Kg	117
1,2,4-Trimethylbenzene	26 J	ug/Kg	117
sec-Butylbenzene	20 J	ug/Kg	117
1,3-Dichlorobenzene	21 J	ug/Kg	117
p-Isopropyltoluene	26 J	ug/Kg	117
1,4-Dichlorobenzene	26 J	ug/Kg	117
1,2-Dichlorobenzene	16 J	ug/Kg	117
n-Butylbenzene	30 J	ug/Kg	117
1,2-Dibromo-3-chloropropane	ND	ug/Kg	292
1,2,4-Trichlorobenzene	43 J	ug/Kg	292
Hexachlorobutadiene	ND	ug/Kg	292
1,2,3-Trichlorobenzene	40 J	ug/Kg	292
Acrylonitrite	ND	ug/Kg	292
Hexachloroethane	ND	ug/Kg	117
Methyl iodine	ND	ug/Kg	117
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	292
Acetone	320 J	ug/Kg	1459
Butanone 2- (MEK)	100 J	ug/Kg	292
Carbon Disulfide	ND	ug/Kg	292
Diethyl ether	ND	ug/Kg	583
Hexanone, 2-	ND	ug/Kg	292
	ND		

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	58	50	116%
1,2-Dichloroethane d4	52	50	104%
Toluene d8	56	50	112%
Bromofluorobenzene	61	50	122%

% Solids	85.70%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4746
Analysis Date: 30-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-47 (15-16')
Lab ID: 00125-72
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	269
Chloromethane	ND	ug/Kg	269
Vinyl chloride	ND	ug/Kg	108
Bromomethane	ND	ug/Kg	269
Trichlorofluoromenthane	57 J	ug/Kg	269
Chloroethane	ND	ug/Kg	269
1,1-Dichloroethene	ND	ug/Kg	54
Methylene chloride	110 J	ug/Kg	269
trans-1,2-Dichloroethene	ND	ug/Kg	54
MTBE	ND	ug/Kg	269
1,1-Dichloroethane	ND	ug/Kg	54
2,2-Dichloropropane	ND	ug/Kg	54
cis-1,2-Dichloroethene	ND	ug/Kg	54
Bromochloromethane	ND	ug/Kg	108
Chloroform	ND	ug/Kg	54
1,1,1-Trichloroethane	ND	ug/Kg	54
Carbon tetrachloride	ND	ug/Kg	54
1,1-Dichloropropene	ND	ug/Kg	54
Benzene	ND	ug/Kg	54
1,2-Dichloroethane	ND	ug/Kg	54
Trichloroethene	36 J	ug/Kg	54
1,2-Dichloropropane	ND	ug/Kg	54
Dibromomethane	ND	ug/Kg	108
Bromodichloromethane	ND	ug/Kg	108
cis-1,3-Dichloropropene	ND	ug/Kg	54
Toluene	ND	ug/Kg	54
trans-1,3-Dichloropropene	ND	ug/Kg	54
1,1,2-Trichloroethane	ND	ug/Kg	54
Tetrachloroethene	ND	ug/Kg	54
1,3-Dichloropropane	ND	ug/Kg	54
Dibromochloromethane	ND	ug/Kg	108
1,2-Dibromoethane	ND	ug/Kg	54
Chlorobenzene	ND	ug/Kg	54
1,1,1,2-Tetrachlorethane	ND	ug/Kg	108
Ethylbenzene	18 J	ug/Kg	54
m & p-Xylene	22 J	ug/Kg	108
o-Xylene	17 J	ug/Kg	54

Continued

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Sample ID: PB-01-47 (15-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	12 J	ug/Kg	54
Bromoform	ND	ug/Kg	108
Isopropylbenzene	ND	ug/Kg	108
Bromobenzene	ND	ug/Kg	108
1,1,2,2-Tetrachloroethane	ND	ug/Kg	108
1,2,3-Trichloropropane	ND	ug/Kg	108
n-Propylbenzene	22 J	ug/Kg	108
2-Chlorotoluene	16 J	ug/Kg	108
4-Chlorotoluene	20 J	ug/Kg	108
1,3,5-Trimethylbenzene	25 J	ug/Kg	108
tert-Butylbenzene	13 J	ug/Kg	108
1,2,4-Trimethylbenzene	49 J	ug/Kg	108
sec-Butylbenzene	23 J	ug/Kg	108
1,3-Dichlorobenzene	19 J	ug/Kg	108
p-Isopropyltoluene	29 J	ug/Kg	108
1,4-Dichlorobenzene	19 J	ug/Kg	108
1,2-Dichlorobenzene	14 J	ug/Kg	108
n-Butylbenzene	40 J	ug/Kg	108
1,2-Dibromo-3-chloropropane	ND	ug/Kg	269
1,2,4-Trichlorobenzene	30 J	ug/Kg	269
Hexachlorobutadiene	ND	ug/Kg	269
1,2,3-Trichlorobenzene	27 J	ug/Kg	269
Acrylonitrite	ND	ug/Kg	269
Hexachloroethane	ND	ug/Kg	108
Methyl iodine	ND	ug/Kg	108
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	269
Acetone	300 J	ug/Kg	1347
Butanone 2- (MEK)	93 J	ug/Kg	269
Carbon Disulfide	ND	ug/Kg	269
Diethyl ether	ND	ug/Kg	539
Hexanone, 2-	ND	ug/Kg	269

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	60		50	120%
1,2-Diehlorocthane d4	52		50	104%
Toluene d8	50		50	100%
Bromofluorobenzene	56		50	112%
% Solids	92.80%			
Dilution Factor	50			
Soil Weight Preserved	10.00	gm		
MeOH Volume	10	mL		

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
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Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4747
Analysis Date: 30-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-48 (5-6')
Lab ID: 00125-73
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	240 J	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	54 J	ug/Kg	63
Methylene chloride	71 J	ug/Kg	313
trans-1,2-Dichloroethene	9.4 J	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	39 J	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	16 J	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	17 J	ug/Kg	63
m & p-Xylene	ND	ug/Kg	125
o-Xylene	19 J	ug/Kg	63

Continued

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Sample ID: PB-01-48 (5-6')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	13 J	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	21 J	ug/Kg	125
2-Chlorotoluene	21 J	ug/Kg	125
4-Chlorotoluene	24 J	ug/Kg	125
1,3,5-Trimethylbenzene	19 J	ug/Kg	125
tert-Butylbenzene	11 J	ug/Kg	125
1,2,4-Trimethylbenzene	30 J	ug/Kg	125
sec-Butylbenzene	31 J	ug/Kg	125
1,3-Dichlorobenzene	29 J	ug/Kg	125
p-Isopropyltoluene	120 J	ug/Kg	125
1,4-Dichlorobenzene	29 J	ug/Kg	125
1,2-Dichlorobenzene	22 J	ug/Kg	125
n-Butylbenzene	32 J	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	58 J	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	57 J	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	360 J	ug/Kg	1563
Butanone 2- (MEK)	120 J	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	60	50	120%
1,2-Dichloroethane d4	53	50	106%
Toluene d8	58	50	116%
Bromofluorobenzene	59	50	118%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4748
Analysis Date: 30-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-48 (11-12')**
Lab ID: **00125-74**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	308
Chloromethane	ND	ug/Kg	308
Vinyl chloride	ND	ug/Kg	123
Bromomethane	ND	ug/Kg	308
Trichlorofluoromenthane	33 J	ug/Kg	308
Chloroethane	ND	ug/Kg	308
1,1-Dichloroethene	54 J	ug/Kg	62
Methylene chloride	110 J	ug/Kg	308
trans-1,2-Dichloroethene	ND	ug/Kg	62
MTBE	ND	ug/Kg	308
1,1-Dichloroethane	ND	ug/Kg	62
2,2-Dichloropropane	ND	ug/Kg	62
cis-1,2-Dichloroethene	ND	ug/Kg	62
Bromochloromethane	ND	ug/Kg	123
Chloroform	ND	ug/Kg	62
1,1,1-Trichloroethane	ND	ug/Kg	62
Carbon tetrachloride	ND	ug/Kg	62
1,1-Dichloropropene	ND	ug/Kg	62
Benzene	ND	ug/Kg	62
1,2-Dichloroethane	ND	ug/Kg	62
Trichloroethene	18 J	ug/Kg	62
1,2-Dichloropropane	ND	ug/Kg	62
Dibromomethane	ND	ug/Kg	123
Bromodichloromethane	ND	ug/Kg	123
cis-1,3-Dichloropropene	ND	ug/Kg	62
Toluene	ND	ug/Kg	62
trans-1,3-Dichloropropene	ND	ug/Kg	62
1,1,2-Trichloroethane	ND	ug/Kg	62
Tetrachloroethene	ND	ug/Kg	62
1,3-Dichloropropane	ND	ug/Kg	62
Dibromochloromethane	ND	ug/Kg	123
1,2-Dibromoethane	ND	ug/Kg	62
Chlorobenzene	ND	ug/Kg	62
1,1,1,2-Tetrachlorethane	ND	ug/Kg	123
Ethylbenzene	ND	ug/Kg	62
m & p-Xylene	ND	ug/Kg	123
o-Xylene	ND	ug/Kg	62

Continued

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Sample ID: PB-01-48 (11-12')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	62
Bromoform	ND	ug/Kg	123
Isopropylbenzene	ND	ug/Kg	123
Bromobenzene	ND	ug/Kg	123
1,1,2,2-Tetrachloroethane	ND	ug/Kg	123
1,2,3-Trichloropropane	ND	ug/Kg	123
n-Propylbenzene	ND	ug/Kg	123
2-Chlorotoluene	ND	ug/Kg	123
4-Chlorotoluene	ND	ug/Kg	123
1,3,5-Trimethylbenzene	8.0 J	ug/Kg	123
tert-Butylbenzene	ND	ug/Kg	123
1,2,4-Trimethylbenzene	22 J	ug/Kg	123
sec-Butylbenzene	ND	ug/Kg	123
1,3-Dichlorobenzene	ND	ug/Kg	123
p-Isopropyltoluene	9.8 J	ug/Kg	123
1,4-Dichlorobenzene	ND	ug/Kg	123
1,2-Dichlorobenzene	ND	ug/Kg	123
n-Butylbenzene	ND	ug/Kg	123
1,2-Dibromo-3-chloropropane	ND	ug/Kg	308
1,2,4-Trichlorobenzene	ND	ug/Kg	308
Hexachlorobutadiene	ND	ug/Kg	308
1,2,3-Trichlorobenzene	ND	ug/Kg	308
Acrylonitrite	ND	ug/Kg	308
Hexachloroethane	ND	ug/Kg	123
Methyl iodine	ND	ug/Kg	123
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	308
Acetone	330 J	ug/Kg	1539
Butanone 2- (MEK)	90 J	ug/Kg	308
Carbon Disulfide	ND	ug/Kg	308
Diethyl ether	ND	ug/Kg	616
Hexanone, 2-	ND	ug/Kg	308

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	55	50	110%
1,2-Dichloroethane d4	48	50	96%
Toluene d8	53	50	106%
Bromofluorobenzene	55	50	110%

% Solids	81.20%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4756
Analysis Date: 30-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-48 (15-16')**
Lab ID: **00125-75**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	333
Chloromethane	ND	ug/Kg	333
Vinyl chloride	ND	ug/Kg	133
Bromomethane	ND	ug/Kg	333
Trichlorofluoromenthane	ND	ug/Kg	333
Chloroethane	ND	ug/Kg	333
1,1-Dichloroethene	ND	ug/Kg	67
Methylene chloride	ND	ug/Kg	333
trans-1,2-Dichloroethene	ND	ug/Kg	67
MTBE	ND	ug/Kg	333
1,1-Dichloroethane	ND	ug/Kg	67
2,2-Dichloropropane	ND	ug/Kg	67
cis-1,2-Dichloroethene	ND	ug/Kg	67
Bromochloromethane	ND	ug/Kg	133
Chloroform	ND	ug/Kg	67
1,1,1-Trichloroethane	ND	ug/Kg	67
Carbon tetrachloride	ND	ug/Kg	67
1,1-Dichloropropene	ND	ug/Kg	67
Benzene	ND	ug/Kg	67
1,2-Dichloroethane	ND	ug/Kg	67
Trichloroethene	46 J	ug/Kg	67
1,2-Dichloropropane	ND	ug/Kg	67
Dibromomethane	ND	ug/Kg	133
Bromodichloromethane	ND	ug/Kg	133
cis-1,3-Dichloropropene	ND	ug/Kg	67
Toluene	ND	ug/Kg	67
trans-1,3-Dichloropropene	ND	ug/Kg	67
1,1,2-Trichloroethane	ND	ug/Kg	67
Tetrachloroethene	ND	ug/Kg	67
1,3-Dichloropropane	ND	ug/Kg	67
Dibromochloromethane	ND	ug/Kg	133
1,2-Dibromoethane	ND	ug/Kg	67
Chlorobenzene	ND	ug/Kg	67
1,1,1,2-Tetrachlorethane	ND	ug/Kg	133
Ethylbenzene	ND	ug/Kg	67
m & p-Xylene	ND	ug/Kg	133
o-Xylene	ND	ug/Kg	67

Continued

New Age/Landmark
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Sample ID: PB-01-48 (15-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	67
Bromoform	ND	ug/Kg	133
Isopropylbenzene	ND	ug/Kg	133
Bromobenzene	ND	ug/Kg	133
1,1,2,2-Tetrachloroethane	ND	ug/Kg	133
1,2,3-Trichloropropane	ND	ug/Kg	133
n-Propylbenzene	ND	ug/Kg	133
2-Chlorotoluene	ND	ug/Kg	133
4-Chlorotoluene	ND	ug/Kg	133
1,3,5-Trimethylbenzene	ND	ug/Kg	133
tert-Butylbenzene	ND	ug/Kg	133
1,2,4-Trimethylbenzene	ND	ug/Kg	133
sec-Butylbenzene	ND	ug/Kg	133
1,3-Dichlorobenzene	ND	ug/Kg	133
p-Isopropyltoluene	ND	ug/Kg	133
1,4-Dichlorobenzene	ND	ug/Kg	133
1,2-Dichlorobenzene	ND	ug/Kg	133
n-Butylbenzene	ND	ug/Kg	133
1,2-Dibromo-3-chloropropane	ND	ug/Kg	333
1,2,4-Trichlorobenzene	63 J	ug/Kg	333
Hexachlorobutadiene	ND	ug/Kg	333
1,2,3-Trichlorobenzene	83 J	ug/Kg	333
Acrylonitrite	ND	ug/Kg	333
Hexachloroethane	ND	ug/Kg	133
Methyl iodine	ND	ug/Kg	133
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	333
Acetone	380 J	ug/Kg	1667
Butanone 2- (MEK)	ND	ug/Kg	333
Carbon Disulfide	ND	ug/Kg	333
Diethyl ether	ND	ug/Kg	667
Hexanone, 2-	ND	ug/Kg	333

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	53	50	106%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	50	50	100%
Bromofluorobenzene	48	50	96%

% Solids	75.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4757
Analysis Date: 30-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01-50 (3-4')**
Lab ID: **00125-81**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: PB-01-50 (3-4')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	260	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	330	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	42		50	84%
1,2-Dichloroethane d4	51		50	102%
Toluene d8	52		50	104%
Bromofluorobenzene	54		50	108%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4758
Analysis Date: 30-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-47 (11-12')
Lab ID: 00125-71
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	306
Chloromethane	ND	ug/Kg	306
Vinyl chloride	ND	ug/Kg	122
Bromomethane	ND	ug/Kg	306
Trichlorofluoromenthane	ND	ug/Kg	306
Chloroethane	ND	ug/Kg	306
1,1-Dichloroethene	ND	ug/Kg	61
Methylene chloride	45 J	ug/Kg	306
trans-1,2-Dichloroethene	ND	ug/Kg	61
MTBE	ND	ug/Kg	306
1,1-Dichloroethane	ND	ug/Kg	61
2,2-Dichloropropane	ND	ug/Kg	61
cis-1,2-Dichloroethene	ND	ug/Kg	61
Bromochloromethane	ND	ug/Kg	122
Chloroform	ND	ug/Kg	61
1,1,1-Trichloroethane	ND	ug/Kg	61
Carbon tetrachloride	ND	ug/Kg	61
1,1-Dichloropropene	ND	ug/Kg	61
Benzene	ND	ug/Kg	61
1,2-Dichloroethane	ND	ug/Kg	61
Trichloroethene	40 J	ug/Kg	61
1,2-Dichloropropane	ND	ug/Kg	61
Dibromomethane	ND	ug/Kg	122
Bromodichloromethane	ND	ug/Kg	122
cis-1,3-Dichloropropene	ND	ug/Kg	61
Toluene	ND	ug/Kg	61
trans-1,3-Dichloropropene	ND	ug/Kg	61
1,1,2-Trichloroethane	ND	ug/Kg	61
Tetrachloroethene	ND	ug/Kg	61
1,3-Dichloropropane	ND	ug/Kg	61
Dibromochloromethane	ND	ug/Kg	122
1,2-Dibromoethane	ND	ug/Kg	61
Chlorobenzene	ND	ug/Kg	61
1,1,1,2-Tetrachlorethane	ND	ug/Kg	122
Ethylbenzene	ND	ug/Kg	61
m & p-Xylene	ND	ug/Kg	122
o-Xylene	ND	ug/Kg	61

Continued

New Age/Landmark
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Sample ID: PB-01-47 (11-12')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	61
Bromoform	ND	ug/Kg	122
Isopropylbenzene	ND	ug/Kg	122
Bromobenzene	ND	ug/Kg	122
1,1,2,2-Tetrachloroethane	ND	ug/Kg	122
1,2,3-Trichloropropane	ND	ug/Kg	122
n-Propylbenzene	ND	ug/Kg	122
2-Chlorotoluene	ND	ug/Kg	122
4-Chlorotoluene	ND	ug/Kg	122
1,3,5-Trimethylbenzene	ND	ug/Kg	122
tert-Butylbenzene	ND	ug/Kg	122
1,2,4-Trimethylbenzene	ND	ug/Kg	122
sec-Butylbenzene	ND	ug/Kg	122
1,3-Dichlorobenzene	ND	ug/Kg	122
p-Isopropyltoluene	ND	ug/Kg	122
1,4-Dichlorobenzene	ND	ug/Kg	122
1,2-Dichlorobenzene	ND	ug/Kg	122
n-Butylbenzene	ND	ug/Kg	122
1,2-Dibromo-3-chloropropane	ND	ug/Kg	306
1,2,4-Trichlorobenzene	70 J	ug/Kg	306
Hexachlorobutadiene	ND	ug/Kg	306
1,2,3-Trichlorobenzene	93 J	ug/Kg	306
Acrylonitrite	ND	ug/Kg	306
Hexachloroethane	ND	ug/Kg	122
Methyl iodine	ND	ug/Kg	122
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	306
Acetone	440 J	ug/Kg	1528
Butanone 2- (MEK)	ND	ug/Kg	306
Carbon Disulfide	ND	ug/Kg	306
Diethyl ether	ND	ug/Kg	611
Hexanone, 2-	ND	ug/Kg	306

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	49	50	98%
1,2-Dichloroethane d4	52	50	104%
Toluene d8	52	50	104%
Bromofluorobenzene	53	50	106%

% Solids	81.80%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4759
Analysis Date: 30-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01-50 (11-12')**
Lab ID: **00125-82**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	40 J	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	44 J	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	100
Dibromochloromethane	ND	ug/Kg	50
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	100
1,1,1,2-Tetrachlorethane	ND	ug/Kg	50
Ethylbenzene	ND	ug/Kg	100
m & p-Xylene	ND	ug/Kg	50
o-Xylene	ND	ug/Kg	100

Continued

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Sample ID: PB-01-50 (11-12')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	330 J	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	53	50	106%
1,2-Dichloroethane d4	56	50	112%
Toluene d8	55	50	110%
Bromofluorobenzene	58	50	116%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4760
Analysis Date: 30-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: PB-01-50 (16-17')
Lab ID: 00125-83
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	278
Chloromethane	ND	ug/Kg	278
Vinyl chloride	ND	ug/Kg	111
Bromomethane	ND	ug/Kg	278
Trichlorofluoromenthane	ND	ug/Kg	278
Chloroethane	ND	ug/Kg	278
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	ND	ug/Kg	278
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	278
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	111
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	ND	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	111
Bromodichloromethane	ND	ug/Kg	111
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropenc	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	111
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	111
Ethylbenzene	ND	ug/Kg	56
m & p-Xylene	ND	ug/Kg	111
o-Xylene	ND	ug/Kg	56

Continued

New Age/Landmark
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Sample ID: PB-01-50 (16-17')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	111
Isopropylbenzene	ND	ug/Kg	111
Bromobenzene	ND	ug/Kg	111
1,1,2,2-Tetrachloroethane	ND	ug/Kg	111
1,2,3-Trichloropropane	ND	ug/Kg	111
n-Propylbenzene	ND	ug/Kg	111
2-Chlorotoluene	ND	ug/Kg	111
4-Chlorotoluene	ND	ug/Kg	111
1,3,5-Trimethylbenzene	ND	ug/Kg	111
tert-Butylbenzene	ND	ug/Kg	111
1,2,4-Trimethylbenzene	ND	ug/Kg	111
sec-Butylbenzene	ND	ug/Kg	111
1,3-Dichlorobenzene	ND	ug/Kg	111
p-Isopropyltoluene	ND	ug/Kg	111
1,4-Dichlorobenzene	ND	ug/Kg	111
1,2-Dichlorobenzene	ND	ug/Kg	111
n-Butylbenzene	ND	ug/Kg	111
1,2-Dibromo-3-chloropropane	ND	ug/Kg	278
1,2,4-Trichlorobenzene	ND	ug/Kg	278
Hexachlorobutadiene	ND	ug/Kg	278
1,2,3-Trichlorobenzene	ND	ug/Kg	278
Acrylonitrite	ND	ug/Kg	278
Hexachloroethane	ND	ug/Kg	111
Methyl iodine	ND	ug/Kg	111
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	278
Acetone	170 J	ug/Kg	1389
Butanone 2- (MEK)	ND	ug/Kg	278
Carbon Disulfide	ND	ug/Kg	278
Diethyl ether	ND	ug/Kg	556
Hexanone, 2-	ND	ug/Kg	278

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	47	50	94%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	51	50	102%
Bromofluorobenzene	54	50	108%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4761
Analysis Date: 30-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01-50 (20-21')**
Lab ID: **00125-84**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	313
Chloromethane	ND	ug/Kg	313
Vinyl chloride	ND	ug/Kg	125
Bromomethane	ND	ug/Kg	313
Trichlorofluoromenthane	ND	ug/Kg	313
Chloroethane	ND	ug/Kg	313
1,1-Dichloroethene	ND	ug/Kg	63
Methylene chloride	54 J	ug/Kg	313
trans-1,2-Dichloroethene	ND	ug/Kg	63
MTBE	ND	ug/Kg	313
1,1-Dichloroethane	ND	ug/Kg	63
2,2-Dichloropropane	ND	ug/Kg	63
cis-1,2-Dichloroethene	ND	ug/Kg	63
Bromochloromethane	ND	ug/Kg	125
Chloroform	ND	ug/Kg	63
1,1,1-Trichloroethane	ND	ug/Kg	63
Carbon tetrachloride	ND	ug/Kg	63
1,1-Dichloropropene	ND	ug/Kg	63
Benzene	ND	ug/Kg	63
1,2-Dichloroethane	ND	ug/Kg	63
Trichloroethene	ND	ug/Kg	63
1,2-Dichloropropane	ND	ug/Kg	63
Dibromomethane	ND	ug/Kg	125
Bromodichloromethane	ND	ug/Kg	125
cis-1,3-Dichloropropene	ND	ug/Kg	63
Toluene	ND	ug/Kg	63
trans-1,3-Dichloropropene	ND	ug/Kg	63
1,1,2-Trichloroethane	ND	ug/Kg	63
Tetrachloroethene	ND	ug/Kg	63
1,3-Dichloropropane	ND	ug/Kg	63
Dibromochloromethane	ND	ug/Kg	125
1,2-Dibromoethane	ND	ug/Kg	63
Chlorobenzene	ND	ug/Kg	63
1,1,1,2-Tetrachlorethane	ND	ug/Kg	125
Ethylbenzene	ND	ug/Kg	63
m & p-Xylene	ND	ug/Kg	125
o-Xylene	ND	ug/Kg	63

Continued

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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Sample ID: PB-01-50 (20-21')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	63
Bromoform	ND	ug/Kg	125
Isopropylbenzene	ND	ug/Kg	125
Bromobenzene	ND	ug/Kg	125
1,1,2,2-Tetrachloroethane	ND	ug/Kg	125
1,2,3-Trichloropropane	ND	ug/Kg	125
n-Propylbenzene	ND	ug/Kg	125
2-Chlorotoluene	ND	ug/Kg	125
4-Chlorotoluene	ND	ug/Kg	125
1,3,5-Trimethylbenzene	ND	ug/Kg	125
tert-Butylbenzene	ND	ug/Kg	125
1,2,4-Trimethylbenzene	ND	ug/Kg	125
sec-Butylbenzene	ND	ug/Kg	125
1,3-Dichlorobenzene	ND	ug/Kg	125
p-Isopropyltoluene	ND	ug/Kg	125
1,4-Dichlorobenzene	ND	ug/Kg	125
1,2-Dichlorobenzene	ND	ug/Kg	125
n-Butylbenzene	ND	ug/Kg	125
1,2-Dibromo-3-chloropropane	ND	ug/Kg	313
1,2,4-Trichlorobenzene	ND	ug/Kg	313
Hexachlorobutadiene	ND	ug/Kg	313
1,2,3-Trichlorobenzene	ND	ug/Kg	313
Acrylonitrite	ND	ug/Kg	313
Hexachloroethane	ND	ug/Kg	125
Methyl Iodine	ND	ug/Kg	125
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	313
Acetone	230 J	ug/Kg	1563
Butanone 2- (MEK)	ND	ug/Kg	313
Carbon Disulfide	ND	ug/Kg	313
Diethyl ether	ND	ug/Kg	625
Hexanone, 2-	ND	ug/Kg	313

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	51	50	102%
1,2-Dichloroethane d4	58	50	116%
Toluene d8	57	50	114%
Bromofluorobenzene	54	50	108%

% Solids	80.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4762
Analysis Date: 30-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: PB-01 (5-6')
Lab ID: 00125-85
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	2778
Chloromethane	ND	ug/Kg	2778
Vinyl chloride	ND	ug/Kg	1111
Bromomethane	ND	ug/Kg	2778
Trichlorofluoromenthane	ND	ug/Kg	2778
Chloroethane	ND	ug/Kg	2778
1,1-Dichloroethene	ND	ug/Kg	556
Methylene chloride	ND	ug/Kg	2778
trans-1,2-Dichloroethene	ND	ug/Kg	556
MTBE	ND	ug/Kg	2778
1,1-Dichloroethane	ND	ug/Kg	556
2,2-Dichloropropane	ND	ug/Kg	556
cis-1,2-Dichloroethene	ND	ug/Kg	556
Bromochloromethane	ND	ug/Kg	1111
Chloroform	ND	ug/Kg	556
1,1,1-Trichloroethane	ND	ug/Kg	556
Carbon tetrachloride	ND	ug/Kg	556
1,1-Dichloropropene	ND	ug/Kg	556
Benzene	ND	ug/Kg	556
1,2-Dichloroethane	ND	ug/Kg	556
Trichloroethene	ND	ug/Kg	556
1,2-Dichloropropane	ND	ug/Kg	556
Dibromomethane	ND	ug/Kg	1111
Bromodichloromethane	ND	ug/Kg	1111
cis-1,3-Dichloropropene	ND	ug/Kg	556
Toluene	1200	ug/Kg	556
trans-1,3-Dichloropropene	ND	ug/Kg	556
1,1,2-Trichloroethane	ND	ug/Kg	556
Tetrachloroethene	ND	ug/Kg	556
1,3-Dichloropropane	ND	ug/Kg	556
Dibromochloromethane	ND	ug/Kg	1111
1,2-Dibromoethane	ND	ug/Kg	556
Chlorobenzene	ND	ug/Kg	556
1,1,1,2-Tetrachlorethane	ND	ug/Kg	1111
Ethylbenzene	10000	ug/Kg	556
m & p-Xylene	42000	ug/Kg	1111
o-Xylene	14000	ug/Kg	556

Continued

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Sample ID: PB-01 (5-6')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	556
Bromoform	ND	ug/Kg	1111
Isopropylbenzene	1500	ug/Kg	1111
Bromobenzene	ND	ug/Kg	1111
1,1,2,2-Tetrachloroethane	ND	ug/Kg	1111
1,2,3-Trichloropropane	ND	ug/Kg	1111
n-Propylbenzene	4100	ug/Kg	1111
2-Chlorotoluene	ND	ug/Kg	1111
4-Chlorotoluene	ND	ug/Kg	1111
1,3,5-Trimethylbenzene	12000	ug/Kg	1111
tert-Butylbenzene	ND	ug/Kg	1111
1,2,4-Trimethylbenzene	41000	ug/Kg	1111
sec-Butylbenzene	3500	ug/Kg	1111
1,3-Dichlorobenzene	ND	ug/Kg	1111
p-Isopropyltoluene	ND	ug/Kg	1111
1,4-Dichlorobenzene	ND	ug/Kg	1111
1,2-Dichlorobenzene	ND	ug/Kg	1111
n-Butylbenzene	ND	ug/Kg	1111
1,2-Dibromo-3-chloropropane	ND	ug/Kg	2778
1,2,4-Trichlorobenzene	ND	ug/Kg	2778
Hexachlorobutadiene	ND	ug/Kg	2778
1,2,3-Trichlorobenzene	ND	ug/Kg	2778
Acrylonitrite	ND	ug/Kg	2778
Hexachloroethane	ND	ug/Kg	1111
Methyl iodine	ND	ug/Kg	1111
Methyl 4,-2-Propanone (MIBK)	8400	ug/Kg	2778
Acetone	ND	ug/Kg	13889
Butanone 2- (MEK)	ND	ug/Kg	2778
Carbon Disulfide	ND	ug/Kg	2778
Diethyl ether	ND	ug/Kg	5556
Hexanone, 2-	ND	ug/Kg	2778

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	46	50	92%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	48	50	96%
Bromofluorobenzene	48	50	96%

% Solids	90.00%	
Dilution Factor	500	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4763
Analysis Date: 30-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01** (7-8')
Lab ID: **00125-86**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	77 J	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	100
Dibromochloromethane	ND	ug/Kg	50
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	100
1,1,1,2-Tetrachlorethane	ND	ug/Kg	50
Ethylbenzene	54 J	ug/Kg	100
m & p-Xylene	ND	ug/Kg	50
o-Xylene			

Continued

New Age/Landmark
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667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-5411

Sample ID: PB-01 (7-8')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	43 J	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	510 J	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	54	50	108%
1,2-Dichloroethane d4	57	50	114%
Toluene d8	55	50	110%
Bromofluorobenzene	64	50	128%

% Solids	100.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4765
Analysis Date: 30-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01 (15-16')**
Lab ID: **00125-88**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	278
Chloromethane	ND	ug/Kg	278
Vinyl chloride	ND	ug/Kg	111
Bromomethane	ND	ug/Kg	278
Trichlorofluoromenthane	ND	ug/Kg	278
Chloroethane	ND	ug/Kg	278
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	49 J	ug/Kg	278
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	278
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	111
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	45 J	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	111
Bromodichloromethane	ND	ug/Kg	111
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	111
Dibromochloromethane	ND	ug/Kg	56
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	111
1,1,1,2-Tetrachlorethane	ND	ug/Kg	56
Ethylbenzene	ND	ug/Kg	56
m & p-Xylene	ND	ug/Kg	111
o-Xylene	ND	ug/Kg	56

Continued

New Age/Landmark
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Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01 (15-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	111
Isopropylbenzene	ND	ug/Kg	111
Bromobenzene	ND	ug/Kg	111
1,1,2,2-Tetrachloroethane	ND	ug/Kg	111
1,2,3-Trichloropropane	ND	ug/Kg	111
n-Propylbenzene	ND	ug/Kg	111
2-Chlorotoluene	ND	ug/Kg	111
4-Chlorotoluene	ND	ug/Kg	111
1,3,5-Trimethylbenzene	ND	ug/Kg	111
tert-Butylbenzene	ND	ug/Kg	111
1,2,4-Trimethylbenzene	ND	ug/Kg	111
sec-Butylbenzene	ND	ug/Kg	111
1,3-Dichlorobenzene	ND	ug/Kg	111
p-Isopropyltoluene	ND	ug/Kg	111
1,4-Dichlorobenzene	ND	ug/Kg	111
1,2-Dichlorobenzene	ND	ug/Kg	111
n-Butylbenzene	ND	ug/Kg	111
1,2-Dibromo-3-chloropropane	ND	ug/Kg	278
1,2,4-Trichlorobenzene	ND	ug/Kg	278
Hexachlorobutadiene	ND	ug/Kg	278
1,2,3-Trichlorobenzene	ND	ug/Kg	278
Acrylonitrite	ND	ug/Kg	278
Hexachloroethane	ND	ug/Kg	111
Methyl iodine	ND	ug/Kg	111
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	278
Acetone	440 J	ug/Kg	1389
Butanone 2- (MEK)	ND	ug/Kg	278
Carbon Disulfide	ND	ug/Kg	278
Diethyl ether	ND	ug/Kg	556
Hexanone, 2-	ND	ug/Kg	278

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	53	50	106%
1,2-Dichloroethane d4	53	50	106%
Toluene d8	53	50	106%
Bromofluorobenzene	63	50	126%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4752
Analysis Date: 30-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: PB-01-45 (14-15') MS
Lab ID: 00125-62 MS
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	47	0	ug/Kg	50	94%
Chloromethane	62	0	ug/Kg	50	124%
Vinyl chloride	45	0	ug/Kg	50	90%
Bromomethane	62	0	ug/Kg	50	124%
Trichlorofluoromenthane	37	0	ug/Kg	50	74%
Chloroethane	14	0	ug/Kg	50	28%
1,1-Dichloroethene	64	0	ug/Kg	50	128%
Methylene chloride	53	0	ug/Kg	50	106%
trans-1,2-Dichloroethene	60	0	ug/Kg	50	120%
MTBE	42	0	ug/Kg	50	84%
1,1-Dichloroethane	49	0	ug/Kg	50	98%
2,2-Dichloropropane	7	0	ug/Kg	50	14%
cis-1,2-Dichloroethene	47	0	ug/Kg	50	94%
Bromochloromethane	45	0	ug/Kg	50	90%
Chloroform	52	0	ug/Kg	50	104%
1,1,1-Trichloroethane	53	0	ug/Kg	50	106%
Carbon tetrachloride	38	0	ug/Kg	50	76%
1,1-Dichloropropene	52	0	ug/Kg	50	104%
Benzene	50	0	ug/Kg	50	100%
1,2-Dichloroethane	45	0	ug/Kg	50	90%
Trichloroethene	53	0	ug/Kg	50	106%
1,2-Dichloropropane	44	0	ug/Kg	50	88%
Dibromomethane	46	0	ug/Kg	50	92%
Bromodichloromethane	53	0	ug/Kg	50	106%
cis-1,3-Dichloropropene	54	0	ug/Kg	50	108%
Toluene	53	0	ug/Kg	50	106%
trans-1,3-Dichloropropene	54	0	ug/Kg	50	108%
1,1,2-Trichloroethane	48	0	ug/Kg	50	96%
Tetrachloroethene	59	0	ug/Kg	50	118%
1,3-Dichloropropane	38	0	ug/Kg	50	76%
Dibromochloromethane	50	0	ug/Kg	50	100%
1,2-Dibromoethane	30	0	ug/Kg	50	60%
Chlorobenzene	55	0	ug/Kg	50	110%
1,1,1,2-Tetrachlorethane	57	0	ug/Kg	50	114%
Ethylbenzene	57	0	ug/Kg	50	114%
m & p-Xylene	111	0	ug/Kg	100	111%
o-Xylene	56	0	ug/Kg	50	112%

Continued

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01-45 (14-15') MS

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec
Styrene	57	0	ug/Kg	50	114%
Bromoform	46	0	ug/Kg	50	92%
Isopropylbenzene	57	0	ug/Kg	50	114%
Bromobenzene	54	0	ug/Kg	50	108%
1,1,2,2-Tetrachloroethane	42	0	ug/Kg	50	84%
1,2,3-Trichloropropane	41	0	ug/Kg	50	82%
n-Propylbenzene	56	0	ug/Kg	50	112%
2-Chlorotoluene	53	0	ug/Kg	50	106%
4-Chlorotoluene	53	0	ug/Kg	50	106%
1,3,5-Trimethylbenzene	52	0	ug/Kg	50	104%
tert-Butylbenzene	55	0	ug/Kg	50	110%
1,2,4-Trimethylbenzene	48	0	ug/Kg	50	96%
sec-Butylbenzene	51	0	ug/Kg	50	102%
1,3-Dichlorobenzene	50	0	ug/Kg	50	100%
p-Isopropyltoluene	50	0	ug/Kg	50	100%
1,4-Dichlorobenzene	48	0	ug/Kg	50	96%
1,2-Dichlorobenzene	47	0	ug/Kg	50	94%
n-Butylbenzene	49	0	ug/Kg	50	98%
1,2-Dibromo-3-chloropropane	38	0	ug/Kg	50	76%
1,2,4-Trichlorobenzene	55	0	ug/Kg	50	110%
Hexachlorobutadiene	35	0	ug/Kg	50	70%
1,2,3-Trichlorobenzene	60	0	ug/Kg	50	120%
Acrylonitrite		0	ug/Kg	51	0%
Hexachloroethane		0	ug/Kg	52	0%
Methyl iodine		0	ug/Kg	53	0%
Methyl 4,-2-Propanone (MIBK)	40	0	ug/Kg	54	74%
Acetone	61	0	ug/Kg	55	111%
Butanone 2- (MEK)	45	0	ug/Kg	56	80%
Carbon Disulfide	61	0	ug/Kg	57	107%
Diethyl ether	48	0	ug/Kg	58	83%
Hexanone, 2-	36	0	ug/Kg	59	61%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	51		50	102%
1,2-Dichloroethane d4	47		50	94%
Toluene d8	51		50	102%
Bromofluorobenzene	48		50	96%

% Solids	92.80%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4753
Analysis Date: 30-May-01
Preservation Date: 24-May-01
Operator: LEW
Sample ID: **PB-01-45 (14-15') MSD**
Lab ID: **00125-62 MSD**
Matrix: Soil
Date Sampled: 24-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec	% RSD
Dichlorodifluoromethane	43	0	ug/Kg	50	86%	-9%
Chloromethane	63	0	ug/Kg	50	126%	2%
Vinyl chloride	46	0	ug/Kg	50	92%	2%
Bromomethane	47	0	ug/Kg	50	94%	-28%
Trichlorofluoromenthane	32	0	ug/Kg	50	64%	-14%
Chloroethane	9	0	ug/Kg	50	18%	-43%
1,1-Dichloroethene	59	0	ug/Kg	50	118%	-8%
Methylene chloride	52	0	ug/Kg	50	104%	-2%
trans-1,2-Dichloroethene	58	0	ug/Kg	50	116%	-3%
MTBE	44	0	ug/Kg	50	88%	5%
1,1-Dichloroethane	50	0	ug/Kg	50	100%	2%
2,2-Dichloropropane	50	0	ug/Kg	50	100%	151%
cis-1,2-Dichloroethene	54	0	ug/Kg	50	108%	14%
Bromochloromethane	52	0	ug/Kg	50	104%	14%
Chloroform	54	0	ug/Kg	50	108%	4%
1,1,1-Trichloroethane	54	0	ug/Kg	50	108%	2%
Carbon tetrachloride	55	0	ug/Kg	50	110%	37%
1,1-Dichloropropene	53	0	ug/Kg	50	106%	2%
Benzene	50	0	ug/Kg	50	100%	0%
1,2-Dichloroethane	49	0	ug/Kg	50	98%	9%
Trichloroethene	55	0	ug/Kg	50	110%	4%
1,2-Dichloropropane	50	0	ug/Kg	50	100%	13%
Dibromomethane	55	0	ug/Kg	50	110%	18%
Bromodichloromethane	57	0	ug/Kg	50	114%	7%
cis-1,3-Dichloropropene	49	0	ug/Kg	50	98%	-10%
Toluene	52	0	ug/Kg	50	104%	-2%
trans-1,3-Dichloropropene	51	0	ug/Kg	50	102%	-6%
1,1,2-Trichloroethane	51	0	ug/Kg	50	102%	6%
Tetrachloroethene	56	0	ug/Kg	50	112%	-5%
1,3-Dichloropropane	47	0	ug/Kg	50	94%	21%
Dibromochloromethane	59	0	ug/Kg	50	118%	17%
1,2-Dibromoethane	50	0	ug/Kg	50	100%	50%
Chlorobenzene	46	0	ug/Kg	50	92%	-18%
1,1,1,2-Tetrachlorethane	53	0	ug/Kg	50	106%	-7%
Ethylbenzene	50	0	ug/Kg	50	100%	-13%
m & p-Xylene	108	0	ug/Kg	100	108%	-3%
o-Xylene	59	0	ug/Kg	50	118%	5%

Continued

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
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Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01-45 (14-15') MSD

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec	% RSD
Styrene	58	0	ug/Kg	50	116%	2%
Bromoform	66	0	ug/Kg	50	132%	36%
Isopropylbenzene	61	0	ug/Kg	50	122%	7%
Bromobenzene	58	0	ug/Kg	50	116%	7%
1,1,2,2-Tetrachloroethane	53	0	ug/Kg	50	106%	23%
1,2,3-Trichloropropane	49	0	ug/Kg	50	98%	18%
n-Propylbenzene	62	0	ug/Kg	50	124%	10%
2-Chlorotoluene	58	0	ug/Kg	50	116%	9%
4-Chlorotoluene	58	0	ug/Kg	50	116%	9%
1,3,5-Trimethylbenzene	58	0	ug/Kg	50	116%	11%
tert-Butylbenzene	61	0	ug/Kg	50	122%	10%
1,2,4-Trimethylbenzene	56	0	ug/Kg	50	112%	15%
sec-Butylbenzene	58	0	ug/Kg	50	116%	13%
1,3-Dichlorobenzene	55	0	ug/Kg	50	110%	10%
p-Isopropyltoluene	56	0	ug/Kg	50	112%	11%
1,4-Dichlorobenzene	54	0	ug/Kg	50	108%	12%
1,2-Dichlorobenzene	54	0	ug/Kg	50	108%	14%
n-Butylbenzene	59	0	ug/Kg	50	118%	19%
1,2-Dibromo-3-chloropropane	50	0	ug/Kg	50	100%	27%
1,2,4-Trichlorobenzene	47	0	ug/Kg	50	94%	-16%
Hexachlorobutadiene	44	0	ug/Kg	50	88%	23%
1,2,3-Trichlorobenzene	44	0	ug/Kg	50	88%	-31%
Acrylonitrite		0	ug/Kg	51	0%	#DIV/0!
Hexachloroethane		0	ug/Kg	52	0%	#DIV/0!
Methyl iodine		0	ug/Kg	53	0%	#DIV/0!
Methyl 4,-2-Propanone (MIBK)	37	0	ug/Kg	54	69%	-8%
Acetone	49	0	ug/Kg	55	89%	-22%
Butanone 2- (MEK)	38	0	ug/Kg	56	68%	-17%
Carbon Disulfide	54	0	ug/Kg	57	95%	-12%
Diethyl ether	50	0	ug/Kg	58	86%	4%
Hexanone, 2-	59	0	ug/Kg	59	100%	48%

Surrogates		Spike Amount	% Rec	% RSD
Dibromofluoromethane	56	50	112%	9%
1,2-Dichloroethane d4	52	50	104%	10%
Toluene d8	53	50	106%	4%
Bromofluorobenzene	54	50	108%	12%

% Solids	92.80%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4724
Analysis Date: 29-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: CCV @ 50 NG
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	53	ug/L	50	106%
Chloromethane	51	ug/L	50	102%
Vinyl chloride	53	ug/L	50	106%
Bromomethane	56	ug/L	50	112%
Trichlorofluoromenthane	50	ug/L	50	100%
Chloroethane	17	ug/L	50	34%
1,1-Dichloroethene	50	ug/L	50	100%
Methylene chloride	54	ug/L	50	108%
trans-1,2-Dichloroethene	51	ug/L	50	102%
MTBE	54	ug/L	50	108%
1,1-Dichloroethane	52	ug/L	50	104%
2,2-Dichloropropane	56	ug/L	50	112%
cis-1,2-Dichloroethene	52	ug/L	50	104%
Bromochloromethane	55	ug/L	50	110%
Chloroform	51	ug/L	50	102%
1,1,1-Trichloroethane	52	ug/L	50	104%
Carbon tetrachloride	51	ug/L	50	102%
1,1-Dichloropropene	52	ug/L	50	104%
Benzene	51	ug/L	50	102%
1,2-Dichloroethane	51	ug/L	50	102%
Trichloroethene	47	ug/L	50	94%
1,2-Dichloropropane	52	ug/L	50	104%
Dibromomethane	51	ug/L	50	102%
Bromodichloromethane	51	ug/L	50	102%
cis-1,3-Dichloropropene	51	ug/L	50	102%
Toluene	50	ug/L	50	100%
trans-1,3-Dichloropropene	53	ug/L	50	106%
1,1,2-Trichloroethane	50	ug/L	50	100%
Tetrachloroethene	46	ug/L	50	92%
1,3-Dichloropropane	50	ug/L	50	100%
Dibromochloromethane	52	ug/L	50	104%
1,2-Dibromoethane	51	ug/L	50	102%
Chlorobenzene	50	ug/L	50	100%
1,1,1,2-Tetrachlorethane	53	ug/L	50	106%
Ethylbenzene	52	ug/L	50	104%
m & p-Xylene	103	ug/L	100	103%
o-Xylene	53	ug/L	50	106%

Continued

New Age/Landmark
Mobile Laboratory Services
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Sample ID: CCV @ 50 NG

Continued	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Styrene	54	ug/L	50	108%
Bromoform	52	ug/L	50	104%
Isopropylbenzene	54	ug/L	50	108%
Bromobenzene	52	ug/L	50	104%
1,1,2,2-Tetrachloroethane	51	ug/L	50	102%
1,2,3-Trichloropropane	51	ug/L	50	102%
n-Propylbenzene	55	ug/L	50	110%
2-Chlorotoluene	53	ug/L	50	106%
4-Chlorotoluene	53	ug/L	50	106%
1,3,5-Trimethylbenzene	54	ug/L	50	108%
tert-Butylbenzene	56	ug/L	50	112%
1,2,4-Trimethylbenzene	52	ug/L	50	104%
sec-Butylbenzene	53	ug/L	50	106%
1,3-Dichlorobenzene	52	ug/L	50	104%
p-Isopropyltoluene	53	ug/L	50	106%
1,4-Dichlorobenzene	51	ug/L	50	102%
1,2-Dichlorobenzene	52	ug/L	50	104%
n-Butylbenzene	55	ug/L	50	110%
1,2-Dibromo-3-chloropropane	49	ug/L	50	98%
1,2,4-Trichlorobenzene	52	ug/L	50	104%
Hexachlorobutadiene	52	ug/L	50	104%
1,2,3-Trichlorobenzene	52	ug/L	50	104%
Acrylonitrite		ug/L	50	0%
Hexachloroethane		ug/L	50	0%
Methyl iodine		ug/L	50	0%
Methyl 4,-2-Propanone (MIBK)	54	ug/L	50	108%
Acetone	50	ug/L	50	100%
Butanone 2- (MEK)	50	ug/L	50	100%
Carbon Disulfide	54	ug/L	50	108%
Diethyl ether	54	ug/L	50	108%
Hexanone, 2-	53	ug/L	50	106%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	50	ug/L	50	100%
1,2-Dichloroethane d4	51	ug/L	50	102%
Toluene d8	49	ug/L	50	98%
Bromofluorobenzene	51	ug/L	50	102%

% Solids	
Dilution Factor	1
Soil Weight Preserved	
MeOH Volume	

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4735
Analysis Date: 29-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: CCV @ 50 NG
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	51	ug/L	50	102%
Chloromethane	62	ug/L	50	124%
Vinyl chloride	58	ug/L	50	116%
Bromomethane	59	ug/L	50	118%
Trichlorofluoromenthane	56	ug/L	50	112%
Chloroethane	39	ug/L	50	78%
1,1-Dichloroethene	49	ug/L	50	98%
Methylene chloride	50	ug/L	50	100%
trans-1,2-Dichloroethene	50	ug/L	50	100%
MTBE	49	ug/L	50	98%
1,1-Dichloroethane	51	ug/L	50	102%
2,2-Dichloropropane	56	ug/L	50	112%
cis-1,2-Dichloroethene	49	ug/L	50	98%
Bromochloromethane	49	ug/L	50	98%
Chloroform	48	ug/L	50	96%
1,1,1-Trichloroethane	51	ug/L	50	102%
Carbon tetrachloride	52	ug/L	50	104%
1,1-Dichloropropene	50	ug/L	50	100%
Benzene	49	ug/L	50	98%
1,2-Dichloroethane	46	ug/L	50	92%
Trichloroethene	48	ug/L	50	96%
1,2-Dichloropropane	52	ug/L	50	104%
Dibromomethane	47	ug/L	50	94%
Bromodichloromethane	51	ug/L	50	102%
cis-1,3-Dichloropropene	53	ug/L	50	106%
Toluene	48	ug/L	50	96%
trans-1,3-Dichloropropene	55	ug/L	50	110%
1,1,2-Trichloroethane	47	ug/L	50	94%
Tetrachloroethene	45	ug/L	50	90%
1,3-Dichloropropane	46	ug/L	50	92%
Dibromochloromethane	52	ug/L	50	104%
1,2-Dibromoethane	47	ug/L	50	94%
Chlorobenzene	51	ug/L	50	102%
1,1,1,2-Tetrachlorethane	56	ug/L	50	112%
Ethylbenzene	53	ug/L	50	106%
m & p-Xylene	105	ug/L	100	105%
o-Xylene	55	ug/L	50	110%

Continued

New Age/Landmark
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Sample ID: CCV @ 50 NG

Continued	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Styrene	54	ug/L	50	108%
Bromoform	53	ug/L	50	106%
Isopropylbenzene	55	ug/L	50	110%
Bromobenzene	49	ug/L	50	98%
1,1,2,2-Tetrachloroethane	46	ug/L	50	92%
1,2,3-Trichloropropane	46	ug/L	50	92%
n-Propylbenzene	55	ug/L	50	110%
2-Chlorotoluene	53	ug/L	50	106%
4-Chlorotoluene	54	ug/L	50	108%
1,3,5-Trimethylbenzene	53	ug/L	50	106%
tert-Butylbenzene	55	ug/L	50	110%
1,2,4-Trimethylbenzene	51	ug/L	50	102%
sec-Butylbenzene	53	ug/L	50	106%
1,3-Dichlorobenzene	49	ug/L	50	98%
p-Isopropyltoluene	51	ug/L	50	102%
1,4-Dichlorobenzene	48	ug/L	50	96%
1,2-Dichlorobenzene	48	ug/L	50	96%
n-Butylbenzene	56	ug/L	50	112%
1,2-Dibromo-3-chloropropane	52	ug/L	50	104%
1,2,4-Trichlorobenzene	49	ug/L	50	98%
Hexachlorobutadiene	51	ug/L	50	102%
1,2,3-Trichlorobenzene	46	ug/L	50	92%
Acrylonitrite		ug/L	50	0%
Hexachloroethane		ug/L	50	0%
Methyl iodine		ug/L	50	0%
Methyl 4,-2-Propanone (MIBK)	46	ug/L	50	92%
Acetone	46	ug/L	50	92%
Butanone 2- (MEK)	44	ug/L	50	88%
Carbon Disulfide	57	ug/L	50	114%
Diethyl ether	50	ug/L	50	100%
Hexanone, 2-	48	ug/L	50	96%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	51	ug/L	50	102%
1,2-Dichloroethane d4	51	ug/L	50	102%
Toluene d8	53	ug/L	50	106%
Bromofluorobenzene	57	ug/L	50	114%

% Solids	
Dilution Factor	1
Soil Weight Preserved	
MeOH Volume	

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4725
Analysis Date: 29-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: **Method Blank**
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: Method Blank

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
scc-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodinc	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	50	ug/Kg	50	100%
1,2-Dichloroethane d4	52	ug/Kg	50	104%
Toluene d8	54	ug/Kg	50	108%
Bromofluorobenzene	60	ug/Kg	50	120%

% Solids	100.00%
Dilution Factor	50
Soil Weight Preserved	10.00
MeOH Volume	10

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4737
Analysis Date: 29-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: Method Blank
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: Method Blank

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	55	ug/Kg	50	110%
1,2-Dichloroethane d4	50	ug/Kg	50	100%
Toluene d8	53	ug/Kg	50	106%
Bromofluorobenzene	61	ug/Kg	50	122%

% Solids	100.00%
Dilution Factor	50
Soil Weight Preserved	10.00
MeOH Volume	10

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4771
Analysis Date: 30-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01 (11-12')**
Lab ID: **00125-87**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	278
Chloromethane	ND	ug/Kg	278
Vinyl chloride	ND	ug/Kg	111
Bromomethane	ND	ug/Kg	278
Trichlorofluoromenthane	ND	ug/Kg	278
Chloroethane	ND	ug/Kg	278
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	ND	ug/Kg	278
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	278
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	111
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	51 J	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	111
Bromodichloromethane	ND	ug/Kg	111
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	111
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	111
Ethylbenzene	ND	ug/Kg	56
m & p-Xylene	88 J	ug/Kg	111
o-Xylene	38 J	ug/Kg	56

Continued

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Sample ID: PB-01 (11-12')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	111
Isopropylbenzene	ND	ug/Kg	111
Bromobenzene	ND	ug/Kg	111
1,1,2,2-Tetrachloroethane	ND	ug/Kg	111
1,2,3-Trichloropropane	ND	ug/Kg	111
n-Propylbenzene	ND	ug/Kg	111
2-Chlorotoluene	ND	ug/Kg	111
4-Chlorotoluene	ND	ug/Kg	111
1,3,5-Trimethylbenzene	37 J	ug/Kg	111
tert-Butylbenzene	ND	ug/Kg	111
1,2,4-Trimethylbenzene	96 J	ug/Kg	111
sec-Butylbenzene	ND	ug/Kg	111
1,3-Dichlorobenzene	ND	ug/Kg	111
p-Isopropyltoluene	ND	ug/Kg	111
1,4-Dichlorobenzene	ND	ug/Kg	111
1,2-Dichlorobenzene	ND	ug/Kg	111
n-Butylbenzene	36 J	ug/Kg	111
1,2-Dibromo-3-chloropropane	ND	ug/Kg	278
1,2,4-Trichlorobenzene	ND	ug/Kg	278
Hexachlorobutadiene	ND	ug/Kg	278
1,2,3-Trichlorobenzene	34 J	ug/Kg	278
Acrylonitrite	ND	ug/Kg	278
Hexachloroethane	ND	ug/Kg	111
Methyl iodine	ND	ug/Kg	111
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	278
Acetone	510 J	ug/Kg	1389
Butanone 2- (MEK)	ND	ug/Kg	278
Carbon Disulfide	ND	ug/Kg	278
Diethyl ether	ND	ug/Kg	556
Hexanone, 2-	ND	ug/Kg	278

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	47		50	94%
1,2-Dichloroethane d4	54		50	108%
Toluene d8	51		50	102%
Bromofluorobenzene	58		50	116%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4772
Analysis Date: 31-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: PB-15 (12-13')
Lab ID: 00125-92
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	275
Chloromethane	ND	ug/Kg	275
Vinyl chloride	ND	ug/Kg	110
Bromomethane	ND	ug/Kg	275
Trichlorofluoromenthane	ND	ug/Kg	275
Chlorocthane	ND	ug/Kg	275
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	ND	ug/Kg	275
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	275
1,1-Dichloroethanc	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	110
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	57	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	110
Bromodichloromethane	ND	ug/Kg	110
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	110
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	110
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	46 J	ug/Kg	110
o-Xylenc	ND	ug/Kg	55

Continued

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Sample ID: PB-15 (12-13')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	110
Isopropylbenzene	ND	ug/Kg	110
Bromobenzene	ND	ug/Kg	110
1,1,2,2-Tetrachloroethane	ND	ug/Kg	110
1,2,3-Trichloropropane	ND	ug/Kg	110
n-Propylbenzene	ND	ug/Kg	110
2-Chlorotoluene	ND	ug/Kg	110
4-Chlorotoluene	ND	ug/Kg	110
1,3,5-Trimethylbenzene	34 J	ug/Kg	110
tert-Butylbenzene	ND	ug/Kg	110
1,2,4-Trimethylbenzene	65 J	ug/Kg	110
scc-Butylbenzene	ND	ug/Kg	110
1,3-Dichlorobenzene	ND	ug/Kg	110
p-Isopropyltoluene	ND	ug/Kg	110
1,4-Dichlorobenzene	ND	ug/Kg	110
1,2-Dichlorobenzene	ND	ug/Kg	110
n-Butylbenzene	ND	ug/Kg	110
1,2-Dibromo-3-chloropropane	ND	ug/Kg	275
1,2,4-Trichlorobenzene	ND	ug/Kg	275
Hexachlorobutadiene	ND	ug/Kg	275
1,2,3-Trichlorobenzene	ND	ug/Kg	275
Acrylonitrite	ND	ug/Kg	275
Hexachloroethane	ND	ug/Kg	110
Methyl iodine	ND	ug/Kg	110
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	275
Acetone	840 J	ug/Kg	1375
Butanone 2- (MEK)	ND	ug/Kg	275
Carbon Disulfide	ND	ug/Kg	275
Diethyl ether	ND	ug/Kg	550
Hexanone, 2-	ND	ug/Kg	275

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	50		50	100%
1,2-Dichloroethane d4	62		50	124%
Toluene d8	56		50	112%
Bromofluorobenzene	57		50	114%
% Solids	90.90%			
Dilution Factor	50			
Soil Weight Preserved	10.00	gm		
MeOH Volume	10	mL		

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4773
Analysis Date: 31-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: PB-15 (15-16')
Lab ID: 00125-93
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	282
Chloromethane	ND	ug/Kg	282
Vinyl chloride	ND	ug/Kg	113
Bromomethane	ND	ug/Kg	282
Trichlorofluoromenthane	ND	ug/Kg	282
Chloroethane	ND	ug/Kg	282
1,1-Dichloroethene	ND	ug/Kg	56
Methylene chloride	ND	ug/Kg	282
trans-1,2-Dichloroethene	ND	ug/Kg	56
MTBE	ND	ug/Kg	282
1,1-Dichloroethane	ND	ug/Kg	56
2,2-Dichloropropane	ND	ug/Kg	56
cis-1,2-Dichloroethene	ND	ug/Kg	56
Bromochloromethane	ND	ug/Kg	113
Chloroform	ND	ug/Kg	56
1,1,1-Trichloroethane	ND	ug/Kg	56
Carbon tetrachloride	ND	ug/Kg	56
1,1-Dichloropropene	ND	ug/Kg	56
Benzene	ND	ug/Kg	56
1,2-Dichloroethane	ND	ug/Kg	56
Trichloroethene	74	ug/Kg	56
1,2-Dichloropropane	ND	ug/Kg	56
Dibromomethane	ND	ug/Kg	113
Bromodichloromethane	ND	ug/Kg	113
cis-1,3-Dichloropropene	ND	ug/Kg	56
Toluene	ND	ug/Kg	56
trans-1,3-Dichloropropene	ND	ug/Kg	56
1,1,2-Trichloroethane	ND	ug/Kg	56
Tetrachloroethene	ND	ug/Kg	56
1,3-Dichloropropane	ND	ug/Kg	56
Dibromochloromethane	ND	ug/Kg	113
1,2-Dibromoethane	ND	ug/Kg	56
Chlorobenzene	ND	ug/Kg	56
1,1,1,2-Tetrachlorethane	ND	ug/Kg	113
Ethylbenzene	ND	ug/Kg	56
m & p-Xylene	ND	ug/Kg	113
o-Xylene	ND	ug/Kg	56

Continued

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Sample ID: PB-15 (15-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	56
Bromoform	ND	ug/Kg	113
Isopropylbenzene	ND	ug/Kg	113
Bromobenzene	ND	ug/Kg	113
1,1,2,2-Tetrachloroethane	ND	ug/Kg	113
1,2,3-Trichloropropane	ND	ug/Kg	113
n-Propylbenzene	ND	ug/Kg	113
2-Chlorotoluene	ND	ug/Kg	113
4-Chlorotoluene	ND	ug/Kg	113
1,3,5-Trimethylbenzene	ND	ug/Kg	113
tert-Butylbenzene	ND	ug/Kg	113
1,2,4-Trimethylbenzene	ND	ug/Kg	113
sec-Butylbenzene	ND	ug/Kg	113
1,3-Dichlorobenzene	ND	ug/Kg	113
p-Isopropyltoluene	ND	ug/Kg	113
1,4-Dichlorobenzene	ND	ug/Kg	113
1,2-Dichlorobenzene	ND	ug/Kg	113
n-Butylbenzene	ND	ug/Kg	113
1,2-Dibromo-3-chloropropane	ND	ug/Kg	282
1,2,4-Trichlorobenzene	ND	ug/Kg	282
Hexachlorobutadiene	ND	ug/Kg	282
1,2,3-Trichlorobenzene	ND	ug/Kg	282
Acrylonitrite	ND	ug/Kg	282
Hexachloroethane	ND	ug/Kg	113
Methyl iodine	ND	ug/Kg	113
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	282
Acetone	540 J	ug/Kg	1408
Butanone 2- (MEK)	ND	ug/Kg	282
Carbon Disulfide	ND	ug/Kg	282
Diethyl ether	ND	ug/Kg	563
Hexanone, 2-	ND	ug/Kg	282

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	45		50	90%
1,2-Dichloroethane d4	54		50	108%
Toluene d8	53		50	106%
Bromofluorobenzene	54		50	108%

% Solids	88.80%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4774
Analysis Date: 31-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01-25 (14-15')**
Lab ID: **00125-94**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	273
Chloromethane	ND	ug/Kg	273
Vinyl chloride	ND	ug/Kg	109
Bromomethane	ND	ug/Kg	273
Trichlorofluoromenthane	ND	ug/Kg	273
Chloroethane	ND	ug/Kg	273
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	ND	ug/Kg	273
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	273
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	109
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	29 J	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	109
Bromodichloromethane	ND	ug/Kg	109
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	109
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	109
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	41 J	ug/Kg	109
o-Xylene	36 J	ug/Kg	55

Continued

New Age/Landmark
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Sample ID: PB-01-25 (14-15')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	109
Isopropylbenzene	ND	ug/Kg	109
Bromobenzene	ND	ug/Kg	109
1,1,2,2-Tetrachloroethane	ND	ug/Kg	109
1,2,3-Trichloropropane	ND	ug/Kg	109
n-Propylbenzene	ND	ug/Kg	109
2-Chlorotoluene	ND	ug/Kg	109
4-Chlorotoluene	ND	ug/Kg	109
1,3,5-Trimethylbenzene	40 J	ug/Kg	109
tert-Butylbenzene	ND	ug/Kg	109
1,2,4-Trimethylbenzene	69 J	ug/Kg	109
sec-Butylbenzene	ND	ug/Kg	109
1,3-Dichlorobenzene	ND	ug/Kg	109
p-Isopropyltoluene	ND	ug/Kg	109
1,4-Dichlorobenzene	ND	ug/Kg	109
1,2-Dichlorobenzene	ND	ug/Kg	109
n-Butylbenzene	ND	ug/Kg	109
1,2-Dibromo-3-chloropropane	ND	ug/Kg	273
1,2,4-Trichlorobenzene	ND	ug/Kg	273
Hexachlorobutadiene	ND	ug/Kg	273
1,2,3-Trichlorobenzene	ND	ug/Kg	273
Acrylonitrite	ND	ug/Kg	273
Hexachloroethane	ND	ug/Kg	109
Methyl iodine	ND	ug/Kg	109
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	273
Acetone	520 J	ug/Kg	1365
Butanone 2- (MEK)	ND	ug/Kg	273
Carbon Disulfide	ND	ug/Kg	273
Diethyl ether	ND	ug/Kg	546
Hexanone, 2-	ND	ug/Kg	273

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	46	50	92%
1,2-Dichloroethane d4	58	50	116%
Toluene d8	54	50	108%
Bromofluorobenzene	59	50	118%

% Solids	91.60%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4775
Analysis Date: 5-3-=01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01-25 (18-19')**
Lab ID: **00125-95**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	273
Chloromethane	ND	ug/Kg	273
Vinyl chloride	ND	ug/Kg	109
Bromomethane	ND	ug/Kg	273
Trichlorofluoromenthane	ND	ug/Kg	273
Chloroethane	ND	ug/Kg	273
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	75 J	ug/Kg	273
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	273
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	109
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	43 J	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	109
Bromodichloromethane	ND	ug/Kg	109
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	109
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	109
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	46 J	ug/Kg	109
o-Xylene	ND	ug/Kg	55

Continued

New Age/Landmark
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Sample ID: PB-01-25 (18-19')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	109
Isopropylbenzene	ND	ug/Kg	109
Bromobenzene	ND	ug/Kg	109
1,1,2,2-Tetrachloroethane	ND	ug/Kg	109
1,2,3-Trichloropropane	ND	ug/Kg	109
n-Propylbenzene	ND	ug/Kg	109
2-Chlorotoluene	ND	ug/Kg	109
4-Chlorotoluene	ND	ug/Kg	109
1,3,5-Trimethylbenzene	28 J	ug/Kg	109
tert-Butylbenzene	ND	ug/Kg	109
1,2,4-Trimethylbenzene	110 J	ug/Kg	109
sec-Butylbenzene	ND	ug/Kg	109
1,3-Dichlorobenzene	ND	ug/Kg	109
p-Isopropyltoluene	ND	ug/Kg	109
1,4-Dichlorobenzene	ND	ug/Kg	109
1,2-Dichlorobenzene	ND	ug/Kg	109
n-Butylbenzene	49 J	ug/Kg	109
1,2-Dibromo-3-chloropropane	ND	ug/Kg	273
1,2,4-Trichlorobenzene	ND	ug/Kg	273
Hexachlorobutadiene	ND	ug/Kg	273
1,2,3-Trichlorobenzene	ND	ug/Kg	273
Acrylonitrite	ND	ug/Kg	273
Hexachloroethane	ND	ug/Kg	109
Methyl iodine	ND	ug/Kg	109
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	273
Acetone	460 J	ug/Kg	1365
Butanone 2- (MEK)	ND	ug/Kg	273
Carbon Disulfide	ND	ug/Kg	273
Diethyl ether	ND	ug/Kg	546
Hexanone, 2-	ND	ug/Kg	273

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	45	50	90%
1,2-Dichloroethane d4	53	50	106%
Toluene d8	50	50	100%
Bromofluorobenzene	55	50	110%

% Solids	91.60%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
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Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4776
Analysis Date: 31-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: PB-01-35 (20-21')
Lab ID: 00125-96
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	275
Chloromethane	ND	ug/Kg	275
Vinyl chloride	ND	ug/Kg	110
Bromomethane	ND	ug/Kg	275
Trichlorofluoromenthane	ND	ug/Kg	275
Chloroethane	ND	ug/Kg	275
1,1-Dichloroethene	ND	ug/Kg	55
Methylene chloride	ND	ug/Kg	275
trans-1,2-Dichloroethene	ND	ug/Kg	55
MTBE	ND	ug/Kg	275
1,1-Dichloroethane	ND	ug/Kg	55
2,2-Dichloropropane	ND	ug/Kg	55
cis-1,2-Dichloroethene	ND	ug/Kg	55
Bromochloromethane	ND	ug/Kg	110
Chloroform	ND	ug/Kg	55
1,1,1-Trichloroethane	ND	ug/Kg	55
Carbon tetrachloride	ND	ug/Kg	55
1,1-Dichloropropene	ND	ug/Kg	55
Benzene	ND	ug/Kg	55
1,2-Dichloroethane	ND	ug/Kg	55
Trichloroethene	46 J	ug/Kg	55
1,2-Dichloropropane	ND	ug/Kg	55
Dibromomethane	ND	ug/Kg	110
Bromodichloromethane	ND	ug/Kg	110
cis-1,3-Dichloropropene	ND	ug/Kg	55
Toluene	ND	ug/Kg	55
trans-1,3-Dichloropropene	ND	ug/Kg	55
1,1,2-Trichloroethane	ND	ug/Kg	55
Tetrachloroethene	ND	ug/Kg	55
1,3-Dichloropropane	ND	ug/Kg	55
Dibromochloromethane	ND	ug/Kg	110
1,2-Dibromoethane	ND	ug/Kg	55
Chlorobenzene	ND	ug/Kg	55
1,1,1,2-Tetrachlorethane	ND	ug/Kg	110
Ethylbenzene	ND	ug/Kg	55
m & p-Xylene	ND	ug/Kg	110
o-Xylene	ND	ug/Kg	55

Continued

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Sample ID: PB-01-35 (20-21')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	55
Bromoform	ND	ug/Kg	110
Isopropylbenzene	ND	ug/Kg	110
Bromobenzene	ND	ug/Kg	110
1,1,2,2-Tetrachloroethane	ND	ug/Kg	110
1,2,3-Trichloropropane	ND	ug/Kg	110
n-Propylbenzene	ND	ug/Kg	110
2-Chlorotoluene	ND	ug/Kg	110
4-Chlorotoluene	ND	ug/Kg	110
1,3,5-Trimethylbenzene	ND	ug/Kg	110
tert-Butylbenzene	ND	ug/Kg	110
1,2,4-Trimethylbenzene	ND	ug/Kg	110
sec-Butylbenzene	ND	ug/Kg	110
1,3-Dichlorobenzene	ND	ug/Kg	110
p-Isopropyltoluene	ND	ug/Kg	110
1,4-Dichlorobenzene	ND	ug/Kg	110
1,2-Dichlorobenzene	ND	ug/Kg	110
n-Butylbenzene	ND	ug/Kg	110
1,2-Dibromo-3-chloropropane	ND	ug/Kg	275
1,2,4-Trichlorobenzene	ND	ug/Kg	275
Hexachlorobutadiene	ND	ug/Kg	275
1,2,3-Trichlorobenzene	ND	ug/Kg	275
Acrylonitrite	ND	ug/Kg	275
Hexachloroethane	ND	ug/Kg	110
Methyl iodine	ND	ug/Kg	110
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	275
Acetone	320 J	ug/Kg	1375
Butanone 2- (MEK)	ND	ug/Kg	275
Carbon Disulfide	ND	ug/Kg	275
Diethyl ether	ND	ug/Kg	550
Hexanone, 2-	ND	ug/Kg	275

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	46		50	92%
1,2-Dichloroethane d4	57		50	114%
Toluene d8	54		50	108%
Bromofluorobenzene	57		50	114%

% Solids	90.90%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4777
Analysis Date: 31-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: PB-01-35 (16-17')
Lab ID: 00125-97
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	100
Bromochloromethane	ND	ug/Kg	50
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: PB-01-35 (16-17')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	41 J	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	36 J	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	480 J	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	%Rec
Dibromofluoromethane	47		50	94%
1,2-Dichloroethane d4	58		50	116%
Toluene d8	56		50	112%
Bromofluorobenzene	61		50	122%
% Solids	100.00%			
Dilution Factor	50			
Soil Weight Preserved	10.00	gm		
MeOH Volume	10	mL		

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

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GeoTrans, Inc.
710 Avis Drive
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4767
Analysis Date: 30-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: PB-01 (11-12') MS
Lab ID: 00125-87 MS
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	46	0	ug/Kg	50	92%
Chloromethane	63	0	ug/Kg	50	126%
Vinyl chloride	53	0	ug/Kg	50	106%
Bromomethane	42	0	ug/Kg	50	84%
Trichlorofluoromenthane	8	0	ug/Kg	50	16%
Chloroethane	8	0	ug/Kg	50	16%
1,1-Dichloroethene	52	0	ug/Kg	50	104%
Methylene chloride	51	0	ug/Kg	50	102%
trans-1,2-Dichloroethene	55	0	ug/Kg	50	110%
MTBE	53	0	ug/Kg	50	106%
1,1-Dichloroethane	51	0	ug/Kg	50	102%
2,2-Dichloropropane	51	0	ug/Kg	50	102%
cis-1,2-Dichloroethene	45	0	ug/Kg	50	90%
Bromochlorbmethane	46	0	ug/Kg	50	92%
Chloroform	51	0	ug/Kg	50	102%
1,1,1-Trichloroethane	50	0	ug/Kg	50	100%
Carbon tetrachloride	53	0	ug/Kg	50	106%
1,1-Dichloropropene	52	0	ug/Kg	50	104%
Benzene	51	0	ug/Kg	50	102%
1,2-Dichloroethane	50	0	ug/Kg	50	100%
Trichloroethene	50	0	ug/Kg	50	100%
1,2-Dichloropropane	49	0	ug/Kg	50	98%
Dibromomethane	53	0	ug/Kg	50	106%
Bromodichloromethane	49	0	ug/Kg	50	98%
cis-1,3-Dichloropropene	47	0	ug/Kg	50	94%
Toluene	48	0	ug/Kg	50	96%
trans-1,3-Dichloropropene	49	0	ug/Kg	50	98%
1,1,2-Trichloroethane	50	0	ug/Kg	50	100%
Tetrachloroethene	46	0	ug/Kg	50	92%
1,3-Dichloropropane	49	0	ug/Kg	50	98%
Dibromochloromethane	58	0	ug/Kg	50	116%
1,2-Dibromoethane	52	0	ug/Kg	50	104%
Chlorobenzene	53	0	ug/Kg	50	106%
1,1,1,2-Tetrachlorethane	59	0	ug/Kg	50	118%
Ethylbenzene	55	0	ug/Kg	50	110%
m & p-Xylene	111	0	ug/Kg	100	111%
o-Xylene	56	0	ug/Kg	50	112%

Continued

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Sample ID: PB-01 (11-12') MS

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec
Styrene	54	0	ug/Kg	50	108%
Bromoform	64	0	ug/Kg	50	128%
Isopropylbenzene	57	0	ug/Kg	50	114%
Bromobenzene	53	0	ug/Kg	50	106%
1,1,2,2-Tetrachloroethane	55	0	ug/Kg	50	110%
1,2,3-Trichloropropane	52	0	ug/Kg	50	104%
n-Propylbenzene	57	0	ug/Kg	50	114%
2-Chlorotoluene	54	0	ug/Kg	50	108%
4-Chlorotoluene	54	0	ug/Kg	50	108%
1,3,5-Trimethylbenzene	55	0	ug/Kg	50	110%
tert-Butylbenzene	57	0	ug/Kg	50	114%
1,2,4-Trimethylbenzene	51	0	ug/Kg	50	102%
sec-Butylbenzene	53	0	ug/Kg	50	106%
1,3-Dichlorobenzene	51	0	ug/Kg	50	102%
p-Isopropyltoluene	52	0	ug/Kg	50	104%
1,4-Dichlorobenzene	49	0	ug/Kg	50	98%
1,2-Dichlorobenzene	49	0	ug/Kg	50	98%
n-Butylbenzene	54	0	ug/Kg	50	108%
1,2-Dibromo-3-chloropropane	55	0	ug/Kg	50	110%
1,2,4-Trichlorobenzene	47	0	ug/Kg	50	94%
Hexachlorobutadiene	45	0	ug/Kg	50	90%
1,2,3-Trichlorobenzene	45	0	ug/Kg	50	90%
Acrylonitrite		0	ug/Kg	51	0%
Hexachloroethane		0	ug/Kg	52	0%
Methyl iodine		0	ug/Kg	53	0%
Methyl 4,-2-Propanone (MIBK)	50	0	ug/Kg	54	93%
Acetone	59	0	ug/Kg	55	107%
Butanone 2- (MEK)	50	0	ug/Kg	56	89%
Carbon Disulfide	49	0	ug/Kg	57	86%
Diethyl ether	57	0	ug/Kg	58	98%
Hexanone, 2-	51	0	ug/Kg	59	86%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	52		50	104%
1,2-Dichloroethane d4	52		50	104%
Toluene d8	48		50	96%
Bromofluorobenzene	52		50	104%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
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GeoTrans, Inc.
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4768
Analysis Date: 30-May-01
Preservation Date: 25-May-01
Operator: LEW
Sample ID: **PB-01 (11-12') MSD**
Lab ID: **00125-87 MSD**
Matrix: Soil
Date Sampled: 25-May-01
Method: 8260 / 5035

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec	% RSD
Dichlorodifluoromethane	48	0	ug/Kg	50	96%	4%
Chloromethane	57	0	ug/Kg	50	114%	-10%
Vinyl chloride	56	0	ug/Kg	50	112%	6%
Bromomethane	50	0	ug/Kg	50	100%	17%
Trichlorofluoromenthane	12	0	ug/Kg	50	24%	40%
Chloroethane	8	0	ug/Kg	50	16%	0%
1,1-Dichloroethene	55	0	ug/Kg	50	110%	6%
Methylene chloride	53	0	ug/Kg	50	106%	4%
trans-1,2-Dichloroethene	56	0	ug/Kg	50	112%	2%
MTBE	52	0	ug/Kg	50	104%	-2%
1,1-Dichloroethane	54	0	ug/Kg	50	108%	6%
2,2-Dichloropropane	53	0	ug/Kg	50	106%	4%
cis-1,2-Dichloroethene	48	0	ug/Kg	50	96%	6%
Bromochloromethane	57	0	ug/Kg	50	114%	21%
Chloroform	55	0	ug/Kg	50	110%	8%
1,1,1-Trichloroethane	56	0	ug/Kg	50	112%	11%
Carbon tetrachloride	59	0	ug/Kg	50	118%	11%
1,1-Dichloropropene	56	0	ug/Kg	50	112%	7%
Benzene	54	0	ug/Kg	50	108%	6%
1,2-Dichloroethane	54	0	ug/Kg	50	108%	8%
Trichloroethene	54	0	ug/Kg	50	108%	8%
1,2-Dichloropropane	54	0	ug/Kg	50	108%	10%
Dibromomethane	57	0	ug/Kg	50	114%	7%
Bromodichloromethane	61	0	ug/Kg	50	122%	22%
cis-1,3-Dichloropropene	57	0	ug/Kg	50	114%	19%
Toluene	55	0	ug/Kg	50	110%	14%
trans-1,3-Dichloropropene	60	0	ug/Kg	50	120%	20%
1,1,2-Trichloroethane	57	0	ug/Kg	50	114%	13%
Tetrachlorocthene	52	0	ug/Kg	50	104%	12%
1,3-Dichloropropane	54	0	ug/Kg	50	108%	10%
Dibromochloromethane	63	0	ug/Kg	50	126%	8%
1,2-Dibromoethane	58	0	ug/Kg	50	116%	11%
Chlorobenzene	53	0	ug/Kg	50	106%	0%
1,1,1,2-Tetrachlorethane	62	0	ug/Kg	50	124%	5%
Ethylbenzene	56	0	ug/Kg	50	112%	2%
m & p-Xylene	112	0	ug/Kg	100	112%	1%
o-Xylene	58	0	ug/Kg	50	116%	4%

Continued

New Age/Landmark
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Sample ID: PB-01 (11-12') MSD

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec	% RSD
Styrene	56	0	ug/Kg	50	112%	4%
Bromoform	61	0	ug/Kg	50	122%	-5%
Isopropylbenzene	57	0	ug/Kg	50	114%	0%
Bromobenzene	52	0	ug/Kg	50	104%	-2%
1,1,2,2-Tetrachloroethane	48	0	ug/Kg	50	96%	-14%
1,2,3-Trichloropropane	46	0	ug/Kg	50	92%	-12%
n-Propylbenzene	57	0	ug/Kg	50	114%	0%
2-Chlorotoluene	53	0	ug/Kg	50	106%	-2%
4-Chlorotoluene	54	0	ug/Kg	50	108%	0%
1,3,5-Trimethylbenzene	55	0	ug/Kg	50	110%	0%
tert-Butylbenzene	54	0	ug/Kg	50	108%	-5%
1,2,4-Trimethylbenzene	52	0	ug/Kg	50	104%	2%
sec-Butylbenzene	51	0	ug/Kg	50	102%	-4%
1,3-Dichlorobenzene	49	0	ug/Kg	50	98%	-4%
p-Isopropyltoluene	51	0	ug/Kg	50	102%	-2%
1,4-Dichlorobenzene	48	0	ug/Kg	50	96%	-2%
1,2-Dichlorobenzene	48	0	ug/Kg	50	96%	-2%
n-Butylbenzene	52	0	ug/Kg	50	104%	-4%
1,2-Dibromo-3-chloropropane	51	0	ug/Kg	50	102%	-8%
1,2,4-Trichlorobenzene	39	0	ug/Kg	50	78%	-19%
Hexachlorobutadiene	37	0	ug/Kg	50	74%	-20%
1,2,3-Trichlorobenzene	35	0	ug/Kg	50	70%	-25%
Acrylonitrite		0	ug/Kg	51	0%	#DIV/0!
Hexachloroethane		0	ug/Kg	52	0%	#DIV/0!
Methyl iodine		0	ug/Kg	53	0%	#DIV/0!
Methyl 4,-2-Propanone (MIBK)	48	0	ug/Kg	54	89%	-4%
Acetone	54	0	ug/Kg	55	98%	-9%
Butanone 2- (MEK)	50	0	ug/Kg	56	89%	0%
Carbon Disulfide	50	0	ug/Kg	57	88%	2%
Diethyl ether	53	0	ug/Kg	58	91%	-7%
Hexanone, 2-	44	0	ug/Kg	59	75%	-15%

Surrogates			Spike Amount	% Rec	% RSD
Dibromofluoromethane	55		50	110%	6%
1,2-Dichloroethane d4	53		50	106%	2%
Toluene d8	53		50	106%	10%
Bromofluorobenzene	49		50	98%	-6%

% Solids	90.00%	
Dilution Factor	50	
Soil Weight Preserved	10.00	gm
MeOH Volume	10	mL

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4751
Analysis Date: 30-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: CCV @ 50 NG
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	41	ug/L	50	82%
Chloromethane	43	ug/L	50	86%
Vinyl chloride	42	ug/L	50	84%
Bromomethane	53	ug/L	50	106%
Trichlorofluoromenthane	50	ug/L	50	100%
Chloroethane	58	ug/L	50	116%
1,1-Dichloroethene	57	ug/L	50	114%
Methylene chloride	47	ug/L	50	94%
trans-1,2-Dichloroethene	56	ug/L	50	112%
MTBE	25	ug/L	50	50%
1,1-Dichloroethane	47	ug/L	50	94%
2,2-Dichloropropane	5	ug/L	50	10%
cis-1,2-Dichloroethene	50	ug/L	50	100%
Bromochloromethane	45	ug/L	50	90%
Chloroform	53	ug/L	50	106%
1,1,1-Trichloroethane	55	ug/L	50	110%
Carbon tetrachloride	45	ug/L	50	90%
1,1-Dichloropropene	52	ug/L	50	104%
Benzene	50	ug/L	50	100%
1,2-Dichloroethane	44	ug/L	50	88%
Trichloroethene	57	ug/L	50	114%
1,2-Dichloropropane	48	ug/L	50	96%
Dibromomethane	49	ug/L	50	98%
Bromodichloromethane	53	ug/L	50	106%
cis-1,3-Dichloropropene	51	ug/L	50	102%
Toluene	53	ug/L	50	106%
trans-1,3-Dichloropropene	53	ug/L	50	106%
1,1,2-Trichloroethane	49	ug/L	50	98%
Tetrachloroethene	62	ug/L	50	124%
1,3-Dichloropropane	39	ug/L	50	78%
Dibromochloromethane	52	ug/L	50	104%
1,2-Dibromoethane	59	ug/L	50	118%
Chlorobenzene	52	ug/L	50	104%
1,1,1,2-Tetrachlorethane	55	ug/L	50	110%
Ethylbenzene	53	ug/L	50	106%
m & p-Xylene	104	ug/L	100	104%
o-Xylene	53	ug/L	50	106%

Continued

New Age/Landmark
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Sample ID: CCV @ 50 NG

Continued	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Styrene	54	ug/L	50	108%
Bromoform	47	ug/L	50	94%
Isopropylbenzene	56	ug/L	50	112%
Bromobenzene	53	ug/L	50	106%
1,1,2,2-Tetrachloroethane	45	ug/L	50	90%
1,2,3-Trichloropropane	40	ug/L	50	80%
n-Propylbenzene	55	ug/L	50	110%
2-Chlorotoluene	52	ug/L	50	104%
4-Chlorotoluene	53	ug/L	50	106%
1,3,5-Trimethylbenzene	52	ug/L	50	104%
tert-Butylbenzene	57	ug/L	50	114%
1,2,4-Trimethylbenzene	49	ug/L	50	98%
sec-Butylbenzene	54	ug/L	50	108%
1,3-Dichlorobenzene	54	ug/L	50	108%
p-Isopropyltoluene	54	ug/L	50	108%
1,4-Dichlorobenzene	52	ug/L	50	104%
1,2-Dichlorobenzene	53	ug/L	50	106%
n-Butylbenzene	56	ug/L	50	112%
1,2-Dibromo-3-chloropropane	46	ug/L	50	92%
1,2,4-Trichlorobenzene	55	ug/L	50	110%
Hexachlorobutadiene	55	ug/L	50	110%
1,2,3-Trichlorobenzene	51	ug/L	50	102%
Acrylonitrite		ug/L	50	0%
Hexachloroethane		ug/L	50	0%
Methyl iodine		ug/L	50	0%
Methyl 4,-2-Propanone (MIBK)	30	ug/L	50	60%
Acetone	51	ug/L	50	102%
Butanone 2- (MEK)	50	ug/L	50	100%
Carbon Disulfide	55	ug/L	50	110%
Diethyl ether	42	ug/L	50	84%
Hexanone, 2-	40	ug/L	50	80%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	52	ug/L	50	104%
1,2-Dichloroethane d4	46	ug/L	50	92%
Toluene d8	52	ug/L	50	104%
Bromofluorobenzene	46	ug/L	50	92%

% Solids	
Dilution Factor	1
Soil Weight Preserved	
MeOH Volume	

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4766
Analysis Date: 30-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: CCV @ 50 NG
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Dichlorodifluoromethane	43	ug/L	50	86%
Chloromethane	47	ug/L	50	94%
Vinyl chloride	50	ug/L	50	100%
Bromomethane	47	ug/L	50	94%
Trichlorofluoromenthane	50	ug/L	50	100%
Chloroethane	13	ug/L	50	26%
1,1-Dichloroethene	49	ug/L	50	98%
Methylene chloride	51	ug/L	50	102%
trans-1,2-Dichloroethene	49	ug/L	50	98%
MTBE	44	ug/L	50	88%
1,1-Dichloroethane	45	ug/L	50	90%
2,2-Dichloropropane	43	ug/L	50	86%
cis-1,2-Dichloroethene	45	ug/L	50	90%
Bromochloromethane	46	ug/L	50	92%
Chloroform	45	ug/L	50	90%
1,1,1-Trichloroethane	40	ug/L	50	80%
Carbon tetrachloride	41	ug/L	50	82%
1,1-Dichloropropene	41	ug/L	50	82%
Benzene	40	ug/L	50	80%
1,2-Dichloroethane	44	ug/L	50	88%
Trichloroethene	49	ug/L	50	98%
1,2-Dichloropropane	42	ug/L	50	84%
Dibromomethane	42	ug/L	50	84%
Bromodichloromethane	48	ug/L	50	96%
cis-1,3-Dichloropropene	45	ug/L	50	90%
Toluene	46	ug/L	50	92%
trans-1,3-Dichloropropene	47	ug/L	50	94%
1,1,2-Trichloroethane	51	ug/L	50	102%
Tetrachloroethene	44	ug/L	50	88%
1,3-Dichloropropane	52	ug/L	50	104%
Dibromochloromethane	54	ug/L	50	108%
1,2-Dibromoethane	53	ug/L	50	106%
Chlorobenzene	47	ug/L	50	94%
1,1,1,2-Tetrachlorethane	53	ug/L	50	106%
Ethylbenzene	49	ug/L	50	98%
m & p-Xylene	100	ug/L	100	100%
o-Xylene	51	ug/L	50	102%

Continued

New Age/Landmark
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Sample ID: CCV@50NG

Continued	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Styrene	52	ug/L	50	104%
Bromoform	60	ug/L	50	120%
Isopropylbenzene	53	ug/L	50	106%
Bromobenzene	50	ug/L	50	100%
1,1,2,2-Tetrachloroethane	53	ug/L	50	106%
1,2,3-Trichloropropane	52	ug/L	50	104%
n-Propylbenzene	52	ug/L	50	104%
2-Chlorotoluene	48	ug/L	50	96%
4-Chlorotoluene	50	ug/L	50	100%
1,3,5-Trimethylbenzene	49	ug/L	50	98%
tert-Butylbenzene	51	ug/L	50	102%
1,2,4-Trimethylbenzene	48	ug/L	50	96%
sec-Butylbenzene	49	ug/L	50	98%
1,3-Dichlorobenzene	52	ug/L	50	104%
p-Isopropyltoluene	51	ug/L	50	102%
1,4-Dichlorobenzene	48	ug/L	50	96%
1,2-Dichlorobenzene	51	ug/L	50	102%
n-Butylbenzene	55	ug/L	50	110%
1,2-Dibromo-3-chloropropane	53	ug/L	50	106%
1,2,4-Trichlorobenzene	52	ug/L	50	104%
Hexachlorobutadiene	53	ug/L	50	106%
1,2,3-Trichlorobenzene	52	ug/L	50	104%
Acrylonitrite		ug/L	50	0%
Hexachloroethane		ug/L	50	0%
Methyl iodine		ug/L	50	0%
Methyl 4,-2-Propanone (MIBK)	46	ug/L	50	92%
Acetone	56	ug/L	50	112%
Butanone 2- (MEK)	45	ug/L	50	90%
Carbon Disulfide	47	ug/L	50	94%
Diethyl ether	48	ug/L	50	96%
Hexanone, 2-	51	ug/L	50	102%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	45	ug/L	50	90%
1,2-Dichloroethane d4	44	ug/L	50	88%
Toluene d8	45	ug/L	50	90%
Bromofluorobenzene	47	ug/L	50	94%

% Solids	
Dilution Factor	1
Soil Weight Preserved	
MeOH Volume	

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Data file: NALA4755
Analysis Date: 30-May-01
Preservation Date: N A.
Operator: LEW
Sample ID: Method Blank
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

New Age/Landmark
Mobile Laboratory Services
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Sample ID: Method Blank

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	57	ug/Kg	50	114%
1,2-Dichloroethane d4	50	ug/Kg	50	100%
Toluene d8	55	ug/Kg	50	110%
Bromofluorobenzene	55	ug/Kg	50	110%

% Solids	100.00%
Dilution Factor	50
Soil Weight Preserved	10.00
MeOH Volume	10

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4770
Analysis Date: 30-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: Method Blank
Lab ID:
Matrix: Soil
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorodifluoromethane	ND	ug/Kg	250
Chloromethane	ND	ug/Kg	250
Vinyl chloride	ND	ug/Kg	100
Bromomethane	ND	ug/Kg	250
Trichlorofluoromenthane	ND	ug/Kg	250
Chloroethane	ND	ug/Kg	250
1,1-Dichloroethene	ND	ug/Kg	50
Methylene chloride	ND	ug/Kg	250
trans-1,2-Dichloroethene	ND	ug/Kg	50
MTBE	ND	ug/Kg	250
1,1-Dichloroethane	ND	ug/Kg	50
2,2-Dichloropropane	ND	ug/Kg	50
cis-1,2-Dichloroethene	ND	ug/Kg	50
Bromochloromethane	ND	ug/Kg	100
Chloroform	ND	ug/Kg	50
1,1,1-Trichloroethane	ND	ug/Kg	50
Carbon tetrachloride	ND	ug/Kg	50
1,1-Dichloropropene	ND	ug/Kg	50
Benzene	ND	ug/Kg	50
1,2-Dichloroethane	ND	ug/Kg	50
Trichloroethene	ND	ug/Kg	50
1,2-Dichloropropane	ND	ug/Kg	50
Dibromomethane	ND	ug/Kg	100
Bromodichloromethane	ND	ug/Kg	100
cis-1,3-Dichloropropene	ND	ug/Kg	50
Toluene	ND	ug/Kg	50
trans-1,3-Dichloropropene	ND	ug/Kg	50
1,1,2-Trichloroethane	ND	ug/Kg	50
Tetrachloroethene	ND	ug/Kg	50
1,3-Dichloropropane	ND	ug/Kg	50
Dibromochloromethane	ND	ug/Kg	100
1,2-Dibromoethane	ND	ug/Kg	50
Chlorobenzene	ND	ug/Kg	50
1,1,1,2-Tetrachlorethane	ND	ug/Kg	100
Ethylbenzene	ND	ug/Kg	50
m & p-Xylene	ND	ug/Kg	100
o-Xylene	ND	ug/Kg	50

Continued

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Sample ID: Method Blank

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/Kg	50
Bromoform	ND	ug/Kg	100
Isopropylbenzene	ND	ug/Kg	100
Bromobenzene	ND	ug/Kg	100
1,1,2,2-Tetrachloroethane	ND	ug/Kg	100
1,2,3-Trichloropropane	ND	ug/Kg	100
n-Propylbenzene	ND	ug/Kg	100
2-Chlorotoluene	ND	ug/Kg	100
4-Chlorotoluene	ND	ug/Kg	100
1,3,5-Trimethylbenzene	ND	ug/Kg	100
tert-Butylbenzene	ND	ug/Kg	100
1,2,4-Trimethylbenzene	ND	ug/Kg	100
sec-Butylbenzene	ND	ug/Kg	100
1,3-Dichlorobenzene	ND	ug/Kg	100
p-Isopropyltoluene	ND	ug/Kg	100
1,4-Dichlorobenzene	ND	ug/Kg	100
1,2-Dichlorobenzene	ND	ug/Kg	100
n-Butylbenzene	ND	ug/Kg	100
1,2-Dibromo-3-chloropropane	ND	ug/Kg	250
1,2,4-Trichlorobenzene	ND	ug/Kg	250
Hexachlorobutadiene	ND	ug/Kg	250
1,2,3-Trichlorobenzene	ND	ug/Kg	250
Acrylonitrite	ND	ug/Kg	250
Hexachloroethane	ND	ug/Kg	100
Methyl iodine	ND	ug/Kg	100
Methyl 4,-2-Propanone (MIBK)	ND	ug/Kg	250
Acetone	ND	ug/Kg	1250
Butanone 2- (MEK)	ND	ug/Kg	250
Carbon Disulfide	ND	ug/Kg	250
Diethyl ether	ND	ug/Kg	500
Hexanone, 2-	ND	ug/Kg	250

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	49	ug/Kg	50	98%
1,2-Dichloroethane d4	52	ug/Kg	50	104%
Toluene d8	49	ug/Kg	50	98%
Bromofluorobenzene	49	ug/Kg	50	98%

% Solids	100.00%
Dilution Factor	50
Soil Weight Preserved	10.00
MeOH Volume	10

(a) Reporting Limit is adjusted for the dilution factor and percent solids.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4659
Analysis Date: 24-May-01
Preservation Date: N.A
Operator: LEW
Sample ID: PB-01-34 (11.5-16.5')
Lab ID: 00125-28
Matrix: Water
Date Sampled: 23-May-01
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorofluoromethane	ND	ug/L	5
Chloromethane	ND	ug/L	5
Vinyl chloride	ND	ug/L	2
Bromomethane	ND	ug/L	5
Trichlorofluoromenthane	ND	ug/L	5
Chloroethane	ND	ug/L	5
1,1-Dichloroethene	ND	ug/L	1
Methylene chloride	ND	ug/L	5
trans-1,2-Dichloroethene	ND	ug/L	1
MTBE	ND	ug/L	5
1,1-Dichloroethane	ND	ug/L	1
2,2-Dichloropropane	ND	ug/L	1
cis-1,2-Dichloroethene	ND	ug/L	1
Bromochloromethane	ND	ug/L	2
Chloroform	ND	ug/L	1
1,1,1-Trichloroethane	ND	ug/L	1
Carbon tetrachloride	ND	ug/L	1
1,1-Dichloropropene	ND	ug/L	1
Benzene	8.8	ug/L	1
1,2-Dichloroethane	ND	ug/L	1
Trichloroethene	ND	ug/L	1
1,2-Dichloropropane	ND	ug/L	1
Dibromomethane	ND	ug/L	2
Bromodichloromethane	ND	ug/L	2
cis-1,3-Dichloropropene	ND	ug/L	1
Toluene	ND	ug/L	1
trans-1,3-Dichloropropene	ND	ug/L	1
1,1,2-Trichloroethane	ND	ug/L	1
Tetrachloroethene	ND	ug/L	1
1,3-Dichloropropane	ND	ug/L	1
Dibromochloromethane	ND	ug/L	2
1,2-Dibromoethane	ND	ug/L	1
Chlorobenzene	ND	ug/L	1
1,1,1,2-Tetrachlorethane	ND	ug/L	2
Ethylbenzene	170	ug/L	1
m & p-Xylene	33	ug/L	2
o-Xylene	38	ug/L	1

Continued

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: PB-01-34 (11.5-16.5')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	1	ug/L	1
Bromoform	ND	ug/L	2
Isopropylbenzene	12	ug/L	2
Bromobenzene	ND	ug/L	2
1,1,2,2-Tetrachloroethane	ND	ug/L	2
1,2,3-Trichloropropane	ND	ug/L	2
n-Propylbenzene	19	ug/L	2
2-Chlorotoluene	ND	ug/L	2
4-Chlorotoluene	ND	ug/L	2
1,3,5-Trimethylbenzene	6.6	ug/L	2
tert-Butylbenzene	ND	ug/L	2
1,2,4-Trimethylbenzene	81	ug/L	2
sec-Butylbenzene	6.8	ug/L	2
1,3-Dichlorobenzene	ND	ug/L	2
p-Isopropyltoluene	3.3	ug/L	2
1,4-Dichlorobenzene	ND	ug/L	2
1,2-Dichlorobenzene	ND	ug/L	2
n-Butylbenzene	6.2	ug/L	2
1,2-Dibromo-3-chloropropane	ND	ug/L	5
1,2,4-Trichlorobenzene	ND	ug/L	5
Hexachlorobutadiene	ND	ug/L	5
1,2,3-Trichlorobenzene	ND	ug/L	5
Acrylonitrite	ND	ug/L	5
Hexachloroethane	ND	ug/L	1
Methyl iodine	ND	ug/L	1
Methyl 4,-2-Propanone (MIBK)	2.4	ug/L	5
Acetone	ND	ug/L	25
Butanone 2- (MEK)	ND	ug/L	5
Carbon Disulfide	ND	ug/L	5
Diethyl ether	ND	ug/L	10
Hexanone, 2-	ND	ug/L	5

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	48	50	96%
1,2-Dichloroethane d4	60	50	120%
Toluene d8	62	50	124%
Bromofluorobenzene	64	50	128%

Dilution Factor 1

(a) Reporting Limit is adjusted for the dilution factor.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALB4660
Analysis Date: 24-May-01
Preservation Date: N.A
Operator: LEW
Sample ID: PB-01-33 (11-16')
Lab ID: 00125-29
Matrix: Water
Date Sampled: 23-May-01
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorofluoromethane	ND	ug/L	5
Chloromethane	ND	ug/L	5
Vinyl chloride	ND	ug/L	2
Bromomethane	ND	ug/L	5
Trichlorofluoromenthane	ND	ug/L	5
Chloroethane	ND	ug/L	5
1,1-Dichloroethene	ND	ug/L	1
Methylene chloride	ND	ug/L	5
trans-1,2-Dichloroethene	ND	ug/L	1
MTBE	ND	ug/L	5
1,1-Dichloroethane	ND	ug/L	1
2,2-Dichloropropane	ND	ug/L	1
cis-1,2-Dichloroethene	ND	ug/L	1
Bromochloromethane	ND	ug/L	2
Chloroform	ND	ug/L	1
1,1,1-Trichloroethane	ND	ug/L	1
Carbon tetrachloride	ND	ug/L	1
1,1-Dichloropropene	ND	ug/L	1
Benzene	6.8	ug/L	1
1,2-Dichloroethane	ND	ug/L	1
Trichloroethene	ND	ug/L	1
1,2-Dichloropropane	ND	ug/L	1
Dibromomethane	ND	ug/L	2
Bromodichloromethane	ND	ug/L	2
cis-1,3-Dichloropropene	ND	ug/L	1
Toluene	ND	ug/L	1
trans-1,3-Dichloropropene	ND	ug/L	1
1,1,2-Trichloroethane	ND	ug/L	1
Tetrachloroethene	ND	ug/L	1
1,3-Dichloropropane	ND	ug/L	1
Dibromochloromethane	ND	ug/L	2
1,2-Dibromoethane	ND	ug/L	1
Chlorobenzene	ND	ug/L	1
1,1,1,2-Tetrachlorethane	ND	ug/L	2
Ethylbenzene	70	ug/L	1
m & p-Xylene	35	ug/L	2
o-Xylene	8.9	ug/L	1

Continued

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Sample ID: PB-01-33 (11-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/L	1
Bromoform	ND	ug/L	2
Isopropylbenzene	14	ug/L	2
Bromobenzene	ND	ug/L	2
1,1,2,2-Tetrachloroethane	ND	ug/L	2
1,2,3-Trichloropropane	ND	ug/L	2
n-Propylbenzene	33	ug/L	2
2-Chlorotoluene	ND	ug/L	2
4-Chlorotoluene	ND	ug/L	2
1,3,5-Trimethylbenzene	4.1	ug/L	2
tert-Butylbenzene	3.8	ug/L	2
1,2,4-Trimethylbenzene	450E	ug/L	2
sec-Butylbenzene	23	ug/L	2
1,3-Dichlorobenzene	ND	ug/L	2
p-Isopropyltoluene	ND	ug/L	2
1,4-Dichlorobenzene	ND	ug/L	2
1,2-Dichlorobenzene	ND	ug/L	2
n-Butylbenzene	40	ug/L	2
1,2-Dibromo-3-chloropropane	ND	ug/L	5
1,2,4-Trichlorobenzene	ND	ug/L	5
Hexachlorobutadiene	ND	ug/L	5
1,2,3-Trichlorobenzene	ND	ug/L	5
Acrylonitrite	ND	ug/L	5
Hexachloroethane	ND	ug/L	1
Methyl iodine	ND	ug/L	1
Methyl 4,-2-Propanone (MIBK)	65	ug/L	5
Acetone	ND	ug/L	25
Butanone 2- (MEK)	ND	ug/L	5
Carbon Disulfide	ND	ug/L	5
Diethyl ether	ND	ug/L	10
Hexanone, 2-	ND	ug/L	5

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	45	50	90%
1,2-Dichloroethane d4	55	50	110%
Toluene d8	51	50	102%
Bromofluorobenzene	62	50	124%

Dilution Factor 1

(a) Reporting Limit is adjusted for the dilution factor.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALB4661
Analysis Date: 24-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: **PB-01-35 (11-16')**
Lab ID: **00125-30**
Matrix: Water
Date Sampled: 23-May-01
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorofluoromethane	ND	ug/L	5
Chloromethane	ND	ug/L	5
Vinyl chloride	ND	ug/L	2
Bromomethane	ND	ug/L	5
Trichlorofluoromenthane	ND	ug/L	5
Chloroethane	ND	ug/L	5
1,1-Dichloroethene	ND	ug/L	1
Methylene chloride	ND	ug/L	5
trans-1,2-Dichloroethene	ND	ug/L	1
MTBE	ND	ug/L	5
1,1-Dichloroethane	ND	ug/L	1
2,2-Dichloropropane	ND	ug/L	1
cis-1,2-Dichloroethene	ND	ug/L	1
Bromochloromethane	ND	ug/L	2
Chloroform	ND	ug/L	1
1,1,1-Trichloroethane	ND	ug/L	1
Carbon tetrachloride	ND	ug/L	1
1,1-Dichloropropene	ND	ug/L	1
Benzene	1.5	ug/L	1
1,2-Dichloroethane	ND	ug/L	1
Trichloroethene	ND	ug/L	1
1,2-Dichloropropane	ND	ug/L	1
Dibromomethane	ND	ug/L	2
Bromodichloromethane	ND	ug/L	2
cis-1,3-Dichloropropene	ND	ug/L	1
Toluene	ND	ug/L	1
trans-1,3-Dichloropropene	ND	ug/L	1
1,1,2-Trichloroethane	ND	ug/L	1
Tetrachloroethene	ND	ug/L	1
1,3-Dichloropropane	ND	ug/L	1
Dibromochloromethane	ND	ug/L	2
1,2-Dibromoethane	ND	ug/L	1
Chlorobenzene	ND	ug/L	1
1,1,1,2-Tetrachlorethane	ND	ug/L	2
Ethylbenzene	11	ug/L	1
m & p-Xylene	5.4	ug/L	2
o-Xylene	3.8	ug/L	1

Continued

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Sample ID: PB-01-35 (11-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/L	1
Bromoform	ND	ug/L	2
Isopropylbenzene	ND	ug/L	2
Bromobenzene	ND	ug/L	2
1,1,2,2-Tetrachloroethane	ND	ug/L	2
1,2,3-Trichloropropane	ND	ug/L	2
n-Propylbenzene	ND	ug/L	2
2-Chlorotoluene	ND	ug/L	2
4-Chlorotoluene	ND	ug/L	2
1,3,5-Trimethylbenzene	2.1	ug/L	2
tert-Butylbenzene	ND	ug/L	2
1,2,4-Trimethylbenzene	17	ug/L	2
sec-Butylbenzene	ND	ug/L	2
1,3-Dichlorobenzene	ND	ug/L	2
p-Isopropyltoluene	ND	ug/L	2
1,4-Dichlorobenzene	ND	ug/L	2
1,2-Dichlorobenzene	ND	ug/L	2
n-Butylbenzene	ND	ug/L	2
1,2-Dibromo-3-chloropropane	ND	ug/L	5
1,2,4-Trichlorobenzene	ND	ug/L	5
Hexachlorobutadiene	ND	ug/L	5
1,2,3-Trichlorobenzene	ND	ug/L	5
Acrylonitrite	ND	ug/L	5
Hexachloroethane	ND	ug/L	1
Methyl iodine	ND	ug/L	1
Methyl 4,-2-Propanone (MIBK)	ND	ug/L	5
Acetone	ND	ug/L	25
Butanone 2- (MEK)	ND	ug/L	5
Carbon Disulfide	ND	ug/L	5
Diethyl ether	ND	ug/L	10
Hexanone, 2-	ND	ug/L	5

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	45	50	90%
1,2-Dichloroethane d4	55	50	110%
Toluene d8	60	50	120%
Bromofluorobenzene	64	50	128%

Dilution Factor	1

(a) Reporting Limit is adjusted for the dilution factor.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4665
Analysis Date: 24-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: PB-01-35 (11-16') RERUN
Lab ID: 00125-30 DUP
Matrix: Water
Date Sampled: 23-May-01
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorofluoromethane	ND	ug/L	5
Chloromethane	ND	ug/L	5
Vinyl chloride	ND	ug/L	2
Bromomethane	ND	ug/L	5
Trichlorofluoromenthane	ND	ug/L	5
Chloroethane	ND	ug/L	5
1,1-Dichloroethene	ND	ug/L	1
Methylene chloride	ND	ug/L	5
trans-1,2-Dichloroethene	ND	ug/L	1
MTBE	ND	ug/L	5
1,1-Dichloroethane	ND	ug/L	1
2,2-Dichloropropane	ND	ug/L	1
cis-1,2-Dichloroethene	ND	ug/L	1
Bromochloromethane	ND	ug/L	2
Chloroform	ND	ug/L	1
1,1,1-Trichloroethane	ND	ug/L	1
Carbon tetrachloride	ND	ug/L	1
1,1-Dichloropropene	ND	ug/L	1
Benzene	1.5	ug/L	1
1,2-Dichloroethane	ND	ug/L	1
Trichloroethene	ND	ug/L	1
1,2-Dichloropropane	ND	ug/L	1
Dibromomethane	ND	ug/L	2
Bromodichloromethane	ND	ug/L	2
cis-1,3-Dichloropropene	ND	ug/L	1
Toluene	ND	ug/L	1
trans-1,3-Dichloropropene	ND	ug/L	1
1,1,2-Trichloroethane	ND	ug/L	1
Tetrachloroethene	ND	ug/L	1
1,3-Dichloropropane	ND	ug/L	1
Dibromochloromethane	ND	ug/L	2
1,2-Dibromoethane	ND	ug/L	1
Chlorobenzene	ND	ug/L	1
1,1,1,2-Tetrachlorethane	ND	ug/L	2
Ethylbenzene	9.6	ug/L	1
m & p-Xylene	5.1	ug/L	2
o-Xylene	3.6	ug/L	1

Continued

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Sample ID: PB-01-35 (11-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/L	1
Bromoform	ND	ug/L	2
Isopropylbenzene	ND	ug/L	2
Bromobenzene	ND	ug/L	2
1,1,2,2-Tetrachloroethane	ND	ug/L	2
1,2,3-Trichloropropane	ND	ug/L	2
n-Propylbenzene	ND	ug/L	2
2-Chlorotoluene	ND	ug/L	2
4-Chlorotoluene	ND	ug/L	2
1,3,5-Trimethylbenzene	2.1	ug/L	2
tert-Butylbenzene	ND	ug/L	2
1,2,4-Trimethylbenzene	16	ug/L	2
sec-Butylbenzene	ND	ug/L	2
1,3-Dichlorobenzene	ND	ug/L	2
p-Isopropyltoluene	ND	ug/L	2
1,4-Dichlorobenzene	ND	ug/L	2
1,2-Dichlorobenzene	ND	ug/L	2
n-Butylbenzene	ND	ug/L	2
1,2-Dibromo-3-chloropropane	ND	ug/L	5
1,2,4-Trichlorobenzene	ND	ug/L	5
Hexachlorobutadiene	ND	ug/L	5
1,2,3-Trichlorobenzene	ND	ug/L	5
Acrylonitrite	ND	ug/L	5
Hexachloroethane	ND	ug/L	1
Methyl iodine	ND	ug/L	1
Methyl 4,-2-Propanone (MIBK)	ND	ug/L	5
Acetone	ND	ug/L	25
Butanone 2- (MEK)	ND	ug/L	5
Carbon Disulfide	ND	ug/L	5
Diethyl ether	ND	ug/L	10
Hexanone, 2-	ND	ug/L	5

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	46	50	92%
1,2-Dichloroethane d4	54	50	108%
Toluene d8	51	50	102%
Bromofluorobenzene	61	50	122%

Dilution Factor	1

(a) Reporting Limit is adjusted for the dilution factor.

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667 West Main Street
Benton Harbor, MI 49002
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4678
Analysis Date: 25-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: PB-01-45 ((11-16')
Lab ID: 00125-67
Matrix: Water
Date Sampled: 24-May-01
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorofluoromethane	ND	ug/L	5
Chloromethane	ND	ug/L	5
Vinyl chloride	ND	ug/L	2
Bromomethane	ND	ug/L	5
Trichlorofluoromenthane	ND	ug/L	5
Chloroethane	ND	ug/L	5
1,1-Dichloroethene	ND	ug/L	1
Methylene chloride	ND	ug/L	5
trans-1,2-Dichloroethene	ND	ug/L	1
MTBE	ND	ug/L	5
1,1-Dichloroethane	ND	ug/L	1
2,2-Dichloropropane	ND	ug/L	1
cis-1,2-Dichloroethene	ND	ug/L	1
Bromochloromethane	ND	ug/L	2
Chloroform	ND	ug/L	1
1,1,1-Trichloroethane	ND	ug/L	1
Carbon tetrachloride	ND	ug/L	1
1,1-Dichloropropene	ND	ug/L	1
Benzene	3.4	ug/L	1
1,2-Dichloroethane	ND	ug/L	1
Trichloroethene	ND	ug/L	1
1,2-Dichloropropane	ND	ug/L	1
Dibromomethane	ND	ug/L	2
Bromodichloromethane	ND	ug/L	2
cis-1,3-Dichloropropene	ND	ug/L	1
Toluene	1	ug/L	1
trans-1,3-Dichloropropene	ND	ug/L	1
1,1,2-Trichloroethane	ND	ug/L	1
Tetrachloroethene	ND	ug/L	1
1,3-Dichloropropane	ND	ug/L	1
Dibromochloromethane	ND	ug/L	2
1,2-Dibromoethane	ND	ug/L	1
Chlorobenzene	ND	ug/L	1
1,1,1,2-Tetrachlorethane	ND	ug/L	2
Ethylbenzene	160	ug/L	1
m & p-Xylene	240E	ug/L	2
o-Xylene	31	ug/L	1

Continued

New Age/Landmark
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Sample ID: PB-01-45 ((11-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/L	1
Bromoform	ND	ug/L	2
Isopropylbenzene	17	ug/L	2
Bromobenzene	ND	ug/L	2
1,1,2,2-Tetrachloroethane	ND	ug/L	2
1,2,3-Trichloropropane	ND	ug/L	2
n-Propylbenzene	32	ug/L	2
2-Chlorotoluene	ND	ug/L	2
4-Chlorotoluene	ND	ug/L	2
1,3,5-Trimethylbenzene	58	ug/L	2
tert-Butylbenzene	2.9	ug/L	2
1,2,4-Trimethylbenzene	400E	ug/L	2
sec-Butylbenzene	16	ug/L	2
1,3-Dichlorobenzene	ND	ug/L	2
p-Isopropyltoluene	21	ug/L	2
1,4-Dichlorobenzene	ND	ug/L	2
1,2-Dichlorobenzene	ND	ug/L	2
n-Butylbenzene	43	ug/L	2
1,2-Dibromo-3-chloropropane	ND	ug/L	5
1,2,4-Trichlorobenzene	ND	ug/L	5
Hexachlorobutadiene	ND	ug/L	5
1,2,3-Trichlorobenzene	ND	ug/L	5
Acrylonitrite	ND	ug/L	5
Hexachloroethane	ND	ug/L	1
Methyl iodine	ND	ug/L	1
Methyl 4,-2-Propanone (MIBK)	ND	ug/L	5
Acetone	ND	ug/L	25
Butanone 2- (MEK)	ND	ug/L	5
Carbon Disulfide	ND	ug/L	5
Diethyl ether	ND	ug/L	10
Hexanone, 2-	ND	ug/L	5

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	43	50	86%
1,2-Dichloroethane d4	55	50	110%
Toluene d8	51	50	102%
Bromofluorobenzene	64	50	128%
Dilution Factor	1		

(a) Reporting Limit is adjusted for the dilution factor.

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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4679
Analysis Date: 25-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: PB-01-46 (11-16')
Lab ID: 00125-68
Matrix: Water
Date Sampled: 24-May-01
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorofluoromethane	ND	ug/L	5
Chloromethane	ND	ug/L	5
Vinyl chloride	ND	ug/L	2
Bromomethane	ND	ug/L	5
Trichlorofluoromenthane	ND	ug/L	5
Chloroethane	ND	ug/L	5
1,1-Dichloroethene	ND	ug/L	1
Methylene chloride	ND	ug/L	5
trans-1,2-Dichloroethene	ND	ug/L	1
MTBE	ND	ug/L	5
1,1-Dichloroethane	ND	ug/L	1
2,2-Dichloropropane	ND	ug/L	1
cis-1,2-Dichloroethene	ND	ug/L	1
Bromochloromethane	ND	ug/L	2
Chloroform	ND	ug/L	1
1,1,1-Trichloroethane	ND	ug/L	1
Carbon tetrachloride	ND	ug/L	1
1,1-Dichloropropene	ND	ug/L	1
Benzene	1	ug/L	1
1,2-Dichloroethane	ND	ug/L	1
Trichloroethene	ND	ug/L	1
1,2-Dichloropropane	ND	ug/L	1
Dibromomethane	ND	ug/L	2
Bromodichloromethane	ND	ug/L	2
cis-1,3-Dichloropropene	ND	ug/L	1
Toluene	ND	ug/L	1
trans-1,3-Dichloropropene	ND	ug/L	1
1,1,2-Trichloroethane	ND	ug/L	1
Tetrachloroethene	ND	ug/L	1
1,3-Dichloropropane	ND	ug/L	1
Dibromochloromethane	ND	ug/L	2
1,2-Dibromoethane	ND	ug/L	1
Chlorobenzene	ND	ug/L	1
1,1,1,2-Tetrachlorethane	ND	ug/L	2
Ethylbenzene	19	ug/L	1
m & p-Xylene	27	ug/L	2
o-Xylene	15	ug/L	1

Continued

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Sample ID: PB-01-46 (11-16')

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/L	1
Bromoform	ND	ug/L	2
Isopropylbenzene	2.6	ug/L	2
Bromobenzene	ND	ug/L	2
1,1,2,2-Tetrachloroethane	ND	ug/L	2
1,2,3-Trichloropropane	ND	ug/L	2
n-Propylbenzene	ND	ug/L	2
2-Chlorotoluene	ND	ug/L	2
4-Chlorotoluene	ND	ug/L	2
1,3,5-Trimethylbenzene	9.1	ug/L	2
tert-Butylbenzene	2.9	ug/L	2
1,2,4-Trimethylbenzene	45	ug/L	2
sec-Butylbenzene	ND	ug/L	2
1,3-Dichlorobenzene	ND	ug/L	2
p-Isopropyltoluene	ND	ug/L	2
1,4-Dichlorobenzene	ND	ug/L	2
1,2-Dichlorobenzene	ND	ug/L	2
n-Butylbenzene	ND	ug/L	2
1,2-Dibromo-3-chloropropane	ND	ug/L	5
1,2,4-Trichlorobenzene	ND	ug/L	5
Hexachlorobutadiene	ND	ug/L	5
1,2,3-Trichlorobenzene	ND	ug/L	5
Acrylonitrite	ND	ug/L	5
Hexachloroethane	ND	ug/L	1
Methyl iodine	ND	ug/L	1
Methyl 4,-2-Propanone (MIBK)	3.5	ug/L	5
Acetone	ND	ug/L	25
Butanone 2- (MEK)	ND	ug/L	5
Carbon Disulfide	ND	ug/L	5
Diethyl ether	ND	ug/L	10
Hexanone, 2-	ND	ug/L	5

Surrogates		Spike Amount	%Rec
Dibromofluoromethane	37	50	74%
1,2-Dichloroethane d4	53	50	106%
Toluene d8	54	50	108%
Bromofluorobenzene	59	50	118%

Dilution Factor	1

(a) Reporting Limit is adjusted for the dilution factor.

New Age/Landmark
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667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4749
Analysis Date: 30-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: PB-01-35 (11-16') MS
Lab ID: 00125-30 MS
Matrix: Water
Date Sampled: 24-May-01
Method: 8260

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec
Dichlorofluoromethane	57	0	ug/L	50	114%
Chloromethane	49	0	ug/L	50	98%
Vinyl chloride	56	0	ug/L	50	112%
Bromomethane	48	0	ug/L	50	96%
Trichlorofluoromenthane	65	0	ug/L	50	130%
Chlorocthane	42	0	ug/L	50	84%
1,1-Dichloroethene	63	0	ug/L	50	126%
Methylene chloride	54	0	ug/L	50	108%
trans-1,2-Dichloroethene	60	0	ug/L	50	120%
MTBE	35	0	ug/L	50	70%
1,1-Dichloroethane	54	0	ug/L	50	108%
2,2-Dichloropropane	31	0	ug/L	50	62%
cis-1,2-Dichloroethene	53	0	ug/L	50	106%
Bromochloromethane	55	0	ug/L	50	110%
Chloroform	54	0	ug/L	50	108%
1,1,1-Trichloroethane	54	0	ug/L	50	108%
Carbon tetrachloride	46	0	ug/L	50	92%
1,1-Dichloropropene	51	0	ug/L	50	102%
Benzene	49	0	ug/L	50	98%
1,2-Dichloroethane	47	0	ug/L	50	94%
Trichloroethene	52	0	ug/L	50	104%
1,2-Dichloropropane	49	0	ug/L	50	98%
Dibromomethane	51	0	ug/L	50	102%
Bromodichloromethane	58	0	ug/L	50	116%
cis-1,3-Dichloropropene	44	0	ug/L	50	88%
Toluene	52	0	ug/L	50	104%
trans-1,3-Dichloropropene	46	0	ug/L	50	92%
1,1,2-Trichloroethane	48	0	ug/L	50	96%
Tetrachloroethene	65	0	ug/L	50	130%
1,3-Dichloropropane	44	0	ug/L	50	88%
Dibromochloromethane	60	0	ug/L	50	120%
1,2-Dibromoethane	47	0	ug/L	50	94%
Chlorobenzene	51	0	ug/L	50	102%
1,1,1,2-Tetrachlorethane	58	0	ug/L	50	116%
Ethylbenzene	67	0	ug/L	50	134%
m & p-Xylene	104	0	ug/L	100	104%
o-Xylene	54	0	ug/L	50	108%
Continued	52				

New Age/Landmark
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Sample ID: PB-01-35 (11-16') MS

Continued			UNITS	SPIKE AMOUNT	% Rec
Styrene	52	0	ug/L	50	104%
Bromoform	58	0	ug/L	50	116%
Isopropylbenzene	54	0	ug/L	50	108%
Bromobenzene	52	0	ug/L	50	104%
1,1,2,2-Tetrachloroethane	44	0	ug/L	50	88%
1,2,3-Trichloropropane	35	0	ug/L	50	70%
n-Propylbenzene	53	0	ug/L	50	106%
2-Chlorotoluene	50	0	ug/L	50	100%
4-Chlorotoluene	52	0	ug/L	50	104%
1,3,5-Trimethylbenzene	52	0	ug/L	50	104%
tert-Butylbenzene	54	0	ug/L	50	108%
1,2,4-Trimethylbenzene	58	0	ug/L	50	116%
sec-Butylbenzene	52	0	ug/L	50	104%
1,3-Dichlorobenzene	52	0	ug/L	50	104%
p-Isopropyltoluene	52	0	ug/L	50	104%
1,4-Dichlorobenzene	51	0	ug/L	50	102%
1,2-Dichlorobenzene	51	0	ug/L	50	102%
n-Butylbenzene	53	0	ug/L	50	106%
1,2-Dibromo-3-chloropropane	47	0	ug/L	50	94%
1,2,4-Trichlorobenzene	50	0	ug/L	50	100%
Hexachlorobutadiene	48	0	ug/L	50	96%
1,2,3-Trichlorobenzene	47	0	ug/L	50	94%
Acrylonitrite		0	ug/L	50	0%
Hexachloroethane		0	ug/L	50	0%
Methyl iodine		0	ug/L	50	0%
Methyl 4,-2-Propanone (MIBK)	56	0	ug/L	50	112%
Acetone	52	0	ug/L	50	104%
Butanone 2- (MEK)	36	0	ug/L	50	72%
Carbon Disulfide	62	0	ug/L	50	124%
Diethyl ether	42	0	ug/L	50	84%
Hexanone, 2-	28	0	ug/L	50	56%

Surrogates		Spike Amount	% Rec
Dibromofluoromethane	57	50	114%
1,2-Dichloroethane d4	50	50	100%
Toluene d8	55	50	110%
Bromofluorobenzene	50	50	100%
Dilution Factor	1		

(a) Reporting Limit is adjusted for the dilution factor.

New Age/Landmark
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4750
Analysis Date: 30-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: PB-01-35 (11-16') MSD
Lab ID: 00125-30 MSD
Matrix: Water
Date Sampled: 24-May-01
Method: 8260

ANALYTES	RESULTS	SAMPLE RESULTS*	UNITS	SPIKE AMOUNT	% Rec	% RSD
Dichlorofluoromethane	52	0	ug/L	50	104%	-9%
Chloromethane	44	0	ug/L	50	88%	-11%
Vinyl chloride	51	0	ug/L	50	102%	-9%
Bromomethane	54	0	ug/L	50	108%	12%
Trichlorofluoromenthane	68	0	ug/L	50	136%	5%
Chloroethane	54	0	ug/L	50	108%	25%
1,1-Dichloroethene	64	0	ug/L	50	128%	2%
Methylene chloride	60	0	ug/L	50	120%	11%
trans-1,2-Dichloroethene	63	0	ug/L	50	126%	5%
MTBE	39	0	ug/L	50	78%	11%
1,1-Dichloroethane	59	0	ug/L	50	118%	9%
2,2-Dichloropropane	51	0	ug/L	50	102%	49%
cis-1,2-Dichloroethene	57	0	ug/L	50	114%	7%
Bromochloromethane	62	0	ug/L	50	124%	12%
Chloroform	57	0	ug/L	50	114%	5%
1,1,1-Trichloroethane	61	0	ug/L	50	122%	12%
Carbon tetrachloride	58	0	ug/L	50	116%	23%
1,1-Dichloropropene	54	0	ug/L	50	108%	6%
Benzene	52	0	ug/L	50	104%	6%
1,2-Dichloroethane	50	0	ug/L	50	100%	6%
Trichloroethene	55	0	ug/L	50	110%	6%
1,2-Dichloropropane	52	0	ug/L	50	104%	6%
Dibromomethane	55	0	ug/L	50	110%	8%
Bromodichloromethane	67	0	ug/L	50	134%	14%
cis-1,3-Dichloropropene	60	0	ug/L	50	120%	31%
Toluene	58	0	ug/L	50	116%	11%
trans-1,3-Dichloropropene	64	0	ug/L	50	128%	33%
1,1,2-Trichloroethane	53	0	ug/L	50	106%	10%
Tetrachloroethene	63	0	ug/L	50	126%	-3%
1,3-Dichloropropane	51	0	ug/L	50	102%	15%
Dibromochloromethane	65	0	ug/L	50	130%	8%
1,2-Dibromoethane	55	0	ug/L	50	110%	16%
Chlorobenzene	58	0	ug/L	50	116%	13%
1,1,1,2-Tetrachlorethane	68	0	ug/L	50	136%	16%
Ethylbenzene	76	0	ug/L	50	152%	13%
m & p-Xylene	116	0	ug/L	100	116%	11%
o-Xylene	61	0	ug/L	50	122%	12%

Continued

New Age/Landmark
Mobile Laboratory Services
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Sample ID: PB-01-35 (11-16') MSD

Continued	RESULTS		UNITS	SPIKE AMOUNT	% Rec	% RSD
Styrene	58	0	ug/L	50	116%	11%
Bromoform	68	0	ug/L	50	136%	16%
Isopropylbenzene	61	0	ug/L	50	122%	12%
Bromobenzene	57	0	ug/L	50	114%	9%
1,1,2,2-Tetrachloroethane	45	0	ug/L	50	90%	2%
1,2,3-Trichloropropane	39	0	ug/L	50	78%	11%
n-Propylbenzene	59	0	ug/L	50	118%	11%
2-Chlorotoluene	55	0	ug/L	50	110%	10%
4-Chlorotoluene	55	0	ug/L	50	110%	6%
1,3,5-Trimethylbenzene	59	0	ug/L	50	118%	13%
tert-Butylbenzene	58	0	ug/L	50	116%	7%
1,2,4-Trimethylbenzene	58	0	ug/L	50	116%	0%
sec-Butylbenzene	56	0	ug/L	50	112%	7%
1,3-Dichlorobenzene	52	0	ug/L	50	104%	0%
p-Isopropyltoluene	55	0	ug/L	50	110%	6%
1,4-Dichlorobenzene	50	0	ug/L	50	100%	-2%
1,2-Dichlorobenzene	48	0	ug/L	50	96%	-6%
n-Butylbenzene	54	0	ug/L	50	108%	2%
1,2-Dibromo-3-chloropropane	50	0	ug/L	50	100%	6%
1,2,4-Trichlorobenzene	49	0	ug/L	50	98%	-2%
Hexachlorobutadiene	37	0	ug/L	50	74%	-26%
1,2,3-Trichlorobenzene	47	0	ug/L	50	94%	0%
Acrylonitrite		0	ug/L	51	0%	#DIV/0!
Hexachloroethane		0	ug/L	52	0%	#DIV/0!
Methyl iodine		0	ug/L	53	0%	#DIV/0!
Methyl 4,-2-Propanone (MIBK)	53	0	ug/L	54	98%	-13%
Acetone	55	0	ug/L	55	100%	-4%
Butanone 2- (MEK)	39	0	ug/L	56	70%	-3%
Carbon Disulfide	64	0	ug/L	57	112%	-10%
Diethyl ether	44	0	ug/L	58	76%	-10%
Hexanone, 2-	33	0	ug/L	59	56%	0%

Surrogates		Spike Amount	% Rec	% RSD
Dibromofluoromethane	56	50	112%	-2%
1,2-Dichloroethane d4	48	50	96%	-4%
Toluene d8	56	50	112%	2%
Bromofluorobenzene	49	50	98%	-2%

Dilution Factor	1

(a) Reporting Limit is adjusted for the dilution factor.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4657
Analysis Date: 24-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: CCV @ 50 NG
Lab ID:
Matrix: Water
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Dichlorofluoromethane	60	ug/L	50	120%
Chloromethane	62	ug/L	50	124%
Vinyl chloride	55	ug/L	50	110%
Bromomethane	40	ug/L	50	80%
Trichlorofluoromenthane	46	ug/L	50	92%
Chloroethane	18	ug/L	50	36%
1,1-Dichloroethene	53	ug/L	50	106%
Methylene chloride	52	ug/L	50	104%
trans-1,2-Dichloroethene	56	ug/L	50	112%
MTBE	73	ug/L	50	146%
1,1-Dichloroethane	61	ug/L	50	122%
2,2-Dichloropropane	50	ug/L	50	100%
cis-1,2-Dichloroethene	48	ug/L	50	96%
Bromochloromethane	41	ug/L	50	82%
Chloroform	46	ug/L	50	92%
1,1,1-Trichloroethane	45	ug/L	50	90%
Carbon tetrachloride	39	ug/L	50	78%
1,1-Dichloropropene	54	ug/L	50	108%
Benzene	51	ug/L	50	102%
1,2-Dichloroethane	54	ug/L	50	108%
Trichloroethene	53	ug/L	50	106%
1,2-Dichloropropane	49	ug/L	50	98%
Dibromomethane	51	ug/L	50	102%
Bromodichloromethane	38	ug/L	50	76%
cis-1,3-Dichloropropene	47	ug/L	50	94%
Toluene	49	ug/L	50	98%
trans-1,3-Dichloropropene	43	ug/L	50	86%
1,1,2-Trichloroethane	46	ug/L	50	92%
Tetrachloroethene	44	ug/L	50	88%
1,3-Dichloropropane	50	ug/L	50	100%
Dibromochloromethane	37	ug/L	50	74%
1,2-Dibromoethane	44	ug/L	50	88%
Chlorobenzene	61	ug/L	50	122%
1,1,1,2-Tetrachlorethane	53	ug/L	50	106%
Ethylbenzene	65	ug/L	50	130%
m & p-Xylene	126	ug/L	100	126%
o-Xylene	65	ug/L	50	130%

Continued

New Age/Landmark
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Phone (616) 927-3004 Fax (616) 927-3411

Sample ID: CCV @ 50 NG

Continued	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Styrene	63	ug/L	50	126%
Bromoform	38	ug/L	50	76%
Isopropylbenzene	65	ug/L	50	130%
Bromobenzene	53	ug/L	50	106%
1,1,2,2-Tetrachloroethane	56	ug/L	50	112%
1,2,3-Trichloropropane	63	ug/L	50	126%
n-Propylbenzene	64	ug/L	50	128%
2-Chlorotoluene	64	ug/L	50	128%
4-Chlorotoluene	64	ug/L	50	128%
1,3,5-Trimethylbenzene	62	ug/L	50	124%
tert-Butylbenzene	56	ug/L	50	112%
1,2,4-Trimethylbenzene	59	ug/L	50	118%
sec-Butylbenzene	61	ug/L	50	122%
1,3-Dichlorobenzene	51	ug/L	50	102%
p-Isopropyltoluene	57	ug/L	50	114%
1,4-Dichlorobenzene	49	ug/L	50	98%
1,2-Dichlorobenzene	48	ug/L	50	96%
n-Butylbenzene	62	ug/L	50	124%
1,2-Dibromo-3-chloropropane	36	ug/L	50	72%
1,2,4-Trichlorobenzene	36	ug/L	50	72%
Hexachlorobutadiene	41	ug/L	50	82%
1,2,3-Trichlorobenzene	40	ug/L	50	80%
Acrylonitrite		ug/L	51	0%
Hexachloroethane		ug/L	52	0%
Methyl iodine		ug/L	53	0%
Methyl 4,-2-Propanone (MIBK)	55	ug/L	54	110%
Acetone	63	ug/L	55	126%
Butanone 2- (MEK)	58	ug/L	56	116%
Carbon Disulfide	47	ug/L	57	94%
Diethyl ether	54	ug/L	58	108%
Hexanone, 2-	60	ug/L	59	120%

Surrogates			Spike Amount	% Rec
Dibromofluoromethane	46	ug/L	50	92%
1,2-Dichloroethane d4	54	ug/L	50	108%
Toluene d8	49	ug/L	50	98%
Bromofluorobenzene	57	ug/L	50	114%

Dilution Factor	1

(a) Reporting Limit is adjusted for the dilution factor.

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALA4658
Analysis Date: 24-May-01
Preservation Date: N.A.
Operator: LEW
Sample ID: Method Blank
Lab ID:
Matrix: Water
Date Sampled: NA
Method: 8260

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Dichlorofluoromethane	ND	ug/L	5
Chloromethane	ND	ug/L	5
Vinyl chloride	ND	ug/L	2
Bromomethane	ND	ug/L	5
Trichlorofluoromenthane	ND	ug/L	5
Chloroethane	ND	ug/L	5
1,1-Dichloroethene	ND	ug/L	1
Methylene chloride	ND	ug/L	5
trans-1,2-Dichloroethene	ND	ug/L	1
MTBE	ND	ug/L	5
1,1-Dichloroethane	ND	ug/L	1
2,2-Dichloropropane	ND	ug/L	1
cis-1,2-Dichloroethene	ND	ug/L	1
Bromochloromethane	ND	ug/L	2
Chloroform	ND	ug/L	1
1,1,1-Trichloroethane	ND	ug/L	1
Carbon tetrachloride	ND	ug/L	1
1,1-Dichloropropene	ND	ug/L	1
Benzene	ND	ug/L	1
1,2-Dichloroethane	ND	ug/L	1
Trichloroethene	ND	ug/L	1
1,2-Dichloropropane	ND	ug/L	1
Dibromomethane	ND	ug/L	2
Bromodichloromethane	ND	ug/L	2
cis-1,3-Dichloropropene	ND	ug/L	1
Toluene	ND	ug/L	1
trans-1,3-Dichloropropene	ND	ug/L	1
1,1,2-Trichloroethane	ND	ug/L	1
Tetrachloroethene	ND	ug/L	1
1,3-Dichloropropane	ND	ug/L	1
Dibromochloromethane	ND	ug/L	2
1,2-Dibromoethane	ND	ug/L	1
Chlorobenzene	ND	ug/L	1
1,1,1,2-Tetrachlorethane	ND	ug/L	2
Ethylbenzene	ND	ug/L	1
m & p-Xylene	ND	ug/L	2
o-Xylene	ND	ug/L	1

Continued

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
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Sample ID: Method Blank

Continued	RESULTS	UNITS	REPORTING LIMIT (a)
Styrene	ND	ug/L	1
Bromoform	ND	ug/L	2
Isopropylbenzene	ND	ug/L	2
Bromobenzene	ND	ug/L	2
1,1,2,2-Tetrachloroethane	ND	ug/L	2
1,2,3-Trichloropropane	ND	ug/L	2
n-Propylbenzene	ND	ug/L	2
2-Chlorotoluene	ND	ug/L	2
4-Chlorotoluene	ND	ug/L	2
1,3,5-Trimethylbenzene	ND	ug/L	2
tert-Butylbenzene	ND	ug/L	2
1,2,4-Trimethylbenzene	ND	ug/L	2
sec-Butylbenzene	ND	ug/L	2
1,3-Dichlorobenzene	ND	ug/L	2
p-Isopropyltoluene	ND	ug/L	2
1,4-Dichlorobenzene	ND	ug/L	2
1,2-Dichlorobenzene	ND	ug/L	2
n-Butylbenzene	ND	ug/L	2
1,2-Dibromo-3-chloropropane	ND	ug/L	5
1,2,4-Trichlorobenzene	ND	ug/L	5
Hexachlorobutadiene	ND	ug/L	5
1,2,3-Trichlorobenzene	ND	ug/L	5
Acrylonitrite	ND	ug/L	5
Hexachloroethane	ND	ug/L	1
Methyl iodine	ND	ug/L	1
Methyl 4,-2-Propanone (MIBK)	ND	ug/L	5
Acetone	ND	ug/L	25
Butanone 2- (MEK)	ND	ug/L	5
Carbon Disulfide	ND	ug/L	5
Diethyl ether	ND	ug/L	10
Hexanone, 2-	ND	ug/L	5

Surrogates		Spike Amount	% Rec
Dibromofluoromethane	38	50	76%
1,2-Dichloroethane d4	51	50	102%
Toluene d8	50	50	100%
Bromofluorobenzene	64	50	128%

Dilution Factor 1

(a) Reporting Limit is adjusted for the dilution factor.

APPENDIX B

APPENDIX B

Laboratory Reports - SVOCs

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0896.D
Analysis Date: 22-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.7	ug/Kg	10	97%
2-Methylnaphthalene	8.9	ug/Kg	10	89%
Acenaphthylene	9.9	ug/Kg	10	99%
Acenaphthene	10	ug/Kg	10	100%
Fluorene	9.8	ug/Kg	10	98%
Phenanthrene	9.9	ug/Kg	10	99%
Anthracene	9.9	ug/Kg	10	99%
Fluoranthene	9.9	ug/Kg	10	99%
Pyrene	10	ug/Kg	10	100%
Benzo (a) Anthracene	9.5	ug/Kg	10	95%
Chrysene	10	ug/Kg	10	100%
Benzo (b)Fluoranthene	10	ug/Kg	10	100%
Benzo (k) Fluoranthene	12	ug/Kg	10	120%
Benzo (a) Pyrene	9.5	ug/Kg	10	95%
Indeno (1,2,3-cd) Pyrene	9.3	ug/Kg	10	93%
Dibenzo (a,h) Anthracene	5.7	ug/Kg	10	57%
Benzo (g,h,i) Perylene	8.3	ug/Kg	10	83%

Surrogates		Spike Amount	% Rec
2-Flourophenol	10	10	100%
Phenol-d6	11	10	110%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	9.7	10	97%
2,4,6-Tribromophenol	8.8	10	88%
p-Terphenyl-d14	10	10	100%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

New Age/Landmark
Mobile Laboratory Services
667 West Main Street
Benton Harbor, MI 49002
Phone (616) 927-3004 Fax (616) 927-3411

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0883.D
Analysis Date: 22-May-01
Date Extracted: N/A
Operator: MES
Sample ID: Method Blank 052201B1
Lab ID: N/A
Matrix: Soil
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.7	10	47%
Phenol-d6	4.8	10	48%
Nitrobenzene-d5	5.9	10	59%
2-Fluorobiphenyl	5.1	10	51%
2,4,6-Tribromophenol	4.3	10	43%
p-Terphenyl-d14	6.6	10	66%
Dilution Factor	1		
% Solid	100		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

New Age/Landmark
Mobile Laboratory Services
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GeoTrans, Inc.
710 Avis Drive
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0897.D
Analysis Date: 22-May-01
Date Extracted: N/A
Operator: MES
Sample ID: INSTRUMENT BLANK
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	8.4	10	84%
Phenol-d6	8.2	10	82%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	8.4	10	84%
2,4,6-Tribromophenol	8.2	10	82%
p-Terphenyl-d14	10	10	100%

Dilution Factor	1
% Solid	100

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0910.D
Analysis Date: 23-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.8	ug/Kg	10	98%
2-Methylnaphthalene	9.1	ug/Kg	10	91%
Acenaphthylene	9.6	ug/Kg	10	96%
Acenaphthene	9.9	ug/Kg	10	99%
Fluorene	9.8	ug/Kg	10	98%
Phenanthrene	10	ug/Kg	10	100%
Anthracene	11	ug/Kg	10	110%
Fluoranthene	11	ug/Kg	10	110%
Pyrene	11	ug/Kg	10	110%
Benzo (a) Anthracene	9.0	ug/Kg	10	90%
Chrysene	10	ug/Kg	10	100%
Benzo (b)Fluoranthene	11	ug/Kg	10	110%
Benzo (k) Fluoranthene	14	ug/Kg	10	140%
Benzo (a) Pyrene	9.8	ug/Kg	10	98%
Indeno (1,2,3-cd) Pyrene	9.0	ug/Kg	10	90%
Dibenzo (a,h) Anthracene	5.8	ug/Kg	10	58%
Benzo (g,h,i) Perylene	8.0	ug/Kg	10	80%

Surrogates		Spike Amount	% Rec
2-Flourophenol	11	10	110%
Phenol-d6	9.5	10	95%
Nitrobenzene-d5	11	10	110%
2-Fluorobiphenyl	9.6	10	96%
2,4,6-Tribromophenol	9.3	10	93%
p-Terphenyl-d14	11	10	110%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

New Age/Landmark
Mobile Laboratory Services
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GeoTrans, Inc.
710 Avis Drive
Ann Arbor, MI 48109
ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0881.D
Analysis Date: 22-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	10	ug/Kg	10	100%
2-Methylnaphthalene	9.5	ug/Kg	10	95%
Acenaphthylene	11	ug/Kg	10	110%
Acenaphthene	11	ug/Kg	10	110%
Fluorene	11	ug/Kg	10	110%
Phenanthrene	12	ug/Kg	10	120%
Anthracene	11	ug/Kg	10	110%
Fluoranthene	11	ug/Kg	10	110%
Pyrene	11	ug/Kg	10	110%
Benzo (a) Anthracene	10	ug/Kg	10	100%
Chrysene	11	ug/Kg	10	110%
Benzo (b)Fluoranthene	10	ug/Kg	10	100%
Benzo (k) Fluoranthene	12	ug/Kg	10	120%
Benzo (a) Pyrene	10	ug/Kg	10	100%
Indeno (1,2,3-cd) Pyrene	9.5	ug/Kg	10	95%
Dibenzo (a,h) Anthracene	8.5	ug/Kg	10	85%
Benzo (g,h,i) Perylene	9.9	ug/Kg	10	99%

Surrogates		Spike Amount	% Rec
2-Flourophenol	11	10	110%
Phenol-d6	11	10	110%
Nitrobenzene-d5	11	10	110%
2-Fluorobiphenyl	11	10	110%
2,4,6-Tribromophenol	11	10	110%
p-Terphenyl-d14	12	10	120%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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GeoTrans, Inc.
710 Avis Drive
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0911.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: Method Blank (S2)
Lab ID: N/A
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.0	10	40%
Phenol-d6	4.2	10	42%
Nitrobenzene-d5	5.2	10	52%
2-Fluorobiphenyl	5.1	10	51%
2,4,6-Tribromophenol	4.3	10	43%
p-Terphenyl-d14	5.8	10	58%
Dilution Factor	1		
% Solid	100		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file:
Analysis Date:
Date Extracted:
Operator: MES
Sample ID: (MS)
Lab ID:
Matrix: Soil
Date Sampled:
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	43	ug/L	40	108%
2-Methylnaphthalene	37	ug/L	40	90%
Acenaphthylene	36	ug/L	40	90%
Acenaphthene	50	ug/L	40	125%
Fluorene	46	ug/L	40	115%
Phenanthrene	47	ug/L	40	118%
Anthracene	45	ug/L	40	113%
Fluoranthene	37	ug/L	40	93%
Pyrene	38	ug/L	40	95%
Benzo (a) Anthracene	37	ug/L	40	93%
Chrysene	50	ug/L	40	125%
Benzo (b)Fluoranthene	36	ug/L	40	90%
Benzo (k) Fluoranthene	35	ug/L	40	88%
Benzo (a) Pyrene	35	ug/L	40	88%
Indeno (1,2,3-cd) Pyrene	42	ug/L	40	105%
Dibenzo (a,h) Anthracene	49	ug/L	40	123%
Benzo (g,h,i) Perylene	35	ug/L	40	88%

Surrogates		Spike Amount	% Rec
2-Flourophenol	18	20	90%
Phenol-d6	19	20	95%
Nitrobenzene-d5	20	20	100%
2-Fluorobiphenyl	24	20	120%
2,4,6-Tribromophenol	21	20	105%
p-Terphenyl-d14	21	20	105%

Dilution Factor	1
% Solid	1000

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

New Age/Landmark
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ATTN: Mr. Craig Savage

Data file:
Analysis Date:
Date Extracted:
Operator: MES
Sample ID: (MSD)
Lab ID:
Matrix: Soil
Date Sampled:
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec	% RSD
Naphthalene	44	ug/L	40	110%	2%
2-Methylnaphthalene	37	ug/L	40	93%	2%
Acenaphthylene	35	ug/L	40	88%	-3%
Acenaphthene	44	ug/L	40	110%	-13%
Fluorene	45	ug/L	40	113%	-2%
Phenanthrene	47	ug/L	40	118%	0%
Anthracene	47	ug/L	40	118%	4%
Fluoranthene	40	ug/L	40	100%	8%
Pyrene	39	ug/L	40	98%	3%
Benzo (a) Anthracene	38	ug/L	40	95%	3%
Chrysene	44	ug/L	40	110%	-13%
Benzo (b)Fluoranthene	34	ug/L	40	85%	-6%
Benzo (k) Fluoranthene	32	ug/L	40	80%	-9%
Benzo (a) Pyrene	32	ug/L	40	80%	-9%
Indeno (1,2,3-cd) Pyrene	38	ug/L	40	95%	-10%
Dibenzo (a,h) Anthracene	43	ug/L	40	108%	-13%
Benzo (g,h,i) Perylene	37	ug/L	40	93%	6%

Surrogates		Spike Amount	% Rec	% RSD
2-Flourophenol	22	20	110%	20%
Phenol-d6	22	20	110%	15%
Nitrobenzene-d5	23	20	115%	14%
2-Fluorobiphenyl	24	20	120%	0%
2,4,6-Tribromophenol	23	20	115%	9%
p-Terphenyl-d14	21	20	105%	0%

Dilution Factor	1
% Solid	1000

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

New Age/Landmark
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GeoTrans, Inc.
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NAL0922.D
Analysis Date: 23-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.9	ug/Kg	10	99%
2-Methylnaphthalene	8.8	ug/Kg	10	88%
Acenaphthylene	10	ug/Kg	10	100%
Acenaphthene	10	ug/Kg	10	100%
Fluorene	9.8	ug/Kg	10	98%
Phenanthrene	10	ug/Kg	10	100%
Anthracene	11	ug/Kg	10	110%
Fluoranthene	11	ug/Kg	10	110%
Pyrene	11	ug/Kg	10	110%
Benzo (a) Anthracene	8.7	ug/Kg	10	87%
Chrysene	10	ug/Kg	10	100%
Benzo (b)Fluoranthene	9.8	ug/Kg	10	98%
Benzo (k) Fluoranthene	10	ug/Kg	10	100%
Benzo (a) Pyrene	9.7	ug/Kg	10	97%
Indeno (1,2,3-cd) Pyrene	9.6	ug/Kg	10	96%
Dibenzo (a,h) Anthracene	6.9	ug/Kg	10	69%
Benzo (g,h,i) Perylene	8.1	ug/Kg	10	81%

Surrogates		Spike Amount	% Rec
2-Flourophenol	8.0	10	80%
Phenol-d6	8.8	10	88%
Nitrobenzene-d5	9.5	10	95%
2-Fluorobiphenyl	10	10	100%
2,4,6-Tribromophenol	9.5	10	95%
p-Terphenyl-d14	10	10	100%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0923.D
Analysis Date: 23-May-01
Date Extracted: N/A
Operator: MES
Sample ID: INSTRUMENT BLANK
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	8.0	10	80%
Phenol-d6	8.7	10	87%
Nitrobenzene-d5	11	10	110%
2-Fluorobiphenyl	11	10	110%
2,4,6-Tribromophenol	8.1	10	81%
p-Terphenyl-d14	12	10	120%
Dilution Factor	1		
% Solid	100		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

New Age/Landmark
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0916.D
Analysis Date: 23-May-01
Date Extracted: N/A
Operator: MES
Sample ID: INSTRUMENT BLANK
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	8.9	10	89%
Phenol-d6	9.2	10	92%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	11	10	110%
2,4,6-Tribromophenol	8.5	10	85%
p-Terphenyl-d14	12	10	120%

Dilution Factor	1
% Solid	100

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

New Age/Landmark
Mobile Laboratory Services
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file:
Analysis Date:
Date Extracted:
Operator:
Sample ID:
Lab ID:
Matrix:
Date Sampled:
Method:

ANALYTES

Naphthalene
2-Methylnaphthalene
Acenaphthylene
Acenaphthene
Fluorene
Phenanthrene
Anthracene
Fluoranthene
Pyrene
Benzo (a) Anthracene
Chrysene
Benzo (b)Fluoranthene
Benzo (k) Fluoranthene
Benzo (a) Pyrene
Indeno (1,2,3-cd) Pyrene
Dibenzo (a,h) Anthracene
Benzo (g,h,i) Perylene

Surrogates

2-Flourophenol
Phenol-d6
Nitrobenzene-d5
2-Fluorobiphenyl
2,4,6-Tribromophenol
p-Terphenyl-d14

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

New Age/Landmark
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Phone (616) 927-3004 Fax (616) 927-3411

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0941.D
Analysis Date: 24-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.6	ug/Kg	10	96%
2-Methylnaphthalene	8.7	ug/Kg	10	87%
Acenaphthylene	10	ug/Kg	10	100%
Acenaphthene	10	ug/Kg	10	100%
Fluorene	10	ug/Kg	10	100%
Phenanthrene	10	ug/Kg	10	100%
Anthracene	11	ug/Kg	10	110%
Fluoranthene	10	ug/Kg	10	100%
Pyrene	10	ug/Kg	10	100%
Benzo (a) Anthracene	8.8	ug/Kg	10	88%
Chrysene	10	ug/Kg	10	100%
Benzo (b)Fluoranthene	9.8	ug/Kg	10	98%
Benzo (k) Fluoranthene	11	ug/Kg	10	110%
Benzo (a) Pyrene	9.6	ug/Kg	10	96%
Indeno (1,2,3-cd) Pyrene	9.0	ug/Kg	10	90%
Dibenzo (a,h) Anthracene	6.3	ug/Kg	10	63%
Benzo (g,h,i) Perylene	8.2	ug/Kg	10	82%

Surrogates		Spike Amount	% Rec
2-Flourophenol	8.4	10	84%
Phenol-d6	9.5	10	95%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	10	10	100%
2,4,6-Tribromophenol	9.2	10	92%
p-Terphenyl-d14	11	10	110%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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GeoTrans, Inc.
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0942.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: Method Blank S3
Lab ID: N/A
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.1	10	31%
Phenol-d6	4	10	40%
Nitrobenzene-d5	5.3	10	53%
2-Fluorobiphenyl	5.4	10	54%
2,4,6-Tribromophenol	4.7	10	47%
p-Terphenyl-d14	6.8	10	68%
Dilution Factor	1		
% Solid	100		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0946.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-39 (7-8') (MS)
Lab ID: NAL00125-041
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	6.0	ug/Kg	10	60%
2-Methylnaphthalene	6.4	ug/Kg	10	64%
Acenaphthylene	6.6	ug/Kg	10	66%
Acenaphthene	6.5	ug/Kg	10	65%
Fluorene	6.7	ug/Kg	10	67%
Phenanthrene	6.9	ug/Kg	10	69%
Anthracene	6.1	ug/Kg	10	61%
Fluoranthene	7.1	ug/Kg	10	71%
Pyrene	6.8	ug/Kg	10	68%
Benzo (a) Anthracene	5.9	ug/Kg	10	59%
Chrysene	6.7	ug/Kg	10	67%
Benzo (b)Fluoranthene	6.0	ug/Kg	10	60%
Benzo (k) Fluoranthene	8.1	ug/Kg	10	81%
Benzo (a) Pyrene	5.7	ug/Kg	10	57%
Indeno (1,2,3-cd) Pyrene	3.9	ug/Kg	10	39%
Dibenzo (a,h) Anthracene	3.9	ug/Kg	10	39%
Benzo (g,h,i) Perylene	4.5	ug/Kg	10	45%

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.6	10	26%
Phenol-d6	3.6	10	36%
Nitrobenzene-d5	4.2	10	42%
2-Fluorobiphenyl	4.6	10	46%
2,4,6-Tribromophenol	4.6	10	46%
p-Terphenyl-d14	5.8	10	58%

Dilution Factor	1
% Solid	86%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0947.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-39 (7-8') (MSD)
Lab ID: NAL00125-041
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec	% RSD
Naphthalene	5.6	ug/Kg	10	56%	-7%
2-Methylnaphthalene	6.6	ug/Kg	10	66%	3%
Acenaphthylene	6.5	ug/Kg	10	65%	-2%
Acenaphthene	6.1	ug/Kg	10	61%	-6%
Fluorene	6.6	ug/Kg	10	66%	-2%
Phenanthrene	6.9	ug/Kg	10	69%	0%
Anthracene	6.9	ug/Kg	10	69%	12%
Fluoranthene	6.9	ug/Kg	10	69%	-3%
Pyrene	6.9	ug/Kg	10	69%	1%
Benzo (a) Anthracene	6	ug/Kg	10	60%	2%
Chrysene	7.1	ug/Kg	10	71%	6%
Benzo (b)Fluoranthene	5.6	ug/Kg	10	56%	-7%
Benzo (k) Fluoranthene	9.2	ug/Kg	10	92%	13%
Benzo (a) Pyrene	6.1	ug/Kg	10	61%	7%
Indeno (1,2,3-cd) Pyrene	3.8	ug/Kg	10	38%	-3%
Dibenzo (a,h) Anthracene	3.8	ug/Kg	10	38%	-3%
Benzo (g,h,i) Perylene	4.5	ug/Kg	10	45%	0%

Surrogates		Spike Amount	% Rec	% RSD
2-Flourophenol	2.7	10	27%	4%
Phenol-d6	3.8	10	38%	5%
Nitrobenzene-d5	4.6	10	46%	9%
2-Fluorobiphenyl	5.3	10	53%	14%
2,4,6-Tribromophenol	5.1	10	51%	10%
p-Terphenyl-d14	6.4	10	64%	10%

Dilution Factor	1
% Solid	86%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0958.D
Analysis Date: 24-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.9	ug/Kg	10	99%
2-Methylnaphthalene	9.5	ug/Kg	10	95%
Acenaphthylene	9.7	ug/Kg	10	97%
Acenaphthene	9.9	ug/Kg	10	99%
Fluorene	10	ug/Kg	10	100%
Phenanthrene	10	ug/Kg	10	100%
Anthracene	11	ug/Kg	10	110%
Fluoranthene	11	ug/Kg	10	110%
Pyrene	11	ug/Kg	10	110%
Benzo (a) Anthracene	9.3	ug/Kg	10	93%
Chrysene	10	ug/Kg	10	100%
Benzo (b)Fluoranthene	12	ug/Kg	10	120%
Benzo (k) Fluoranthene	12	ug/Kg	10	120%
Benzo (a) Pyrene	9.9	ug/Kg	10	99%
Indeno (1,2,3-cd) Pyrene	11	ug/Kg	10	110%
Dibenzo (a,h) Anthracene	6.0	ug/Kg	10	60%
Benzo (g,h,i) Perylene	8.3	ug/Kg	10	83%

Surrogates		Spike Amount	% Rec
2-Flourophenol	7.9	10	79%
Phenol-d6	8.2	10	82%
Nitrobenzene-d5	9.6	10	96%
2-Fluorobiphenyl	9.5	10	95%
2,4,6-Tribromophenol	8.5	10	85%
p-Terphenyl-d14	10	10	100%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0959.D
Analysis Date: 22-May-01
Date Extracted: N/A
Operator: MES
Sample ID: INSTRUMENT BLANK
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.2	10	52%
Phenol-d6	6.9	10	69%
Nitrobenzene-d5	9.2	10	92%
2-Fluorobiphenyl	9.3	10	93%
2,4,6-Tribromophenol	6.2	10	62%
p-Terphenyl-d14	11	10	110%
Dilution Factor	1		
% Solid	100		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0908.D
Analysis Date: 23-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-23 (4-5') (MSD)
Lab ID: NAL00125-001
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec	% RSD
Naphthalene	3.6	ug/Kg	10	36%	3%
2-Methylnaphthalene	3.8	ug/Kg	10	38%	8%
Acenaphthylene	5.8	ug/Kg	10	58%	17%
Acenaphthene	6.0	ug/Kg	10	60%	9%
Fluorene	6.1	ug/Kg	10	61%	10%
Phenanthrene	6.8	ug/Kg	10	68%	5%
Anthracene	6.4	ug/Kg	10	64%	5%
Fluoranthene	7.0	ug/Kg	10	70%	7%
Pyrene	6.8	ug/Kg	10	68%	1%
Benzo (a) Anthracene	6.4	ug/Kg	10	64%	13%
Chrysene	7.1	ug/Kg	10	71%	9%
Benzo (b)Fluoranthene	6.0	ug/Kg	10	60%	2%
Benzo (k) Fluoranthene	10	ug/Kg	10	100%	0%
Benzo (a) Pyrene	6.3	ug/Kg	10	63%	3%
Indeno (1,2,3-cd) Pyrene	3.4	ug/Kg	10	34%	6%
Dibenzo (a,h) Anthracene	3.8	ug/Kg	10	38%	3%
Benzo (g,h,i) Perylene	3.8	ug/Kg	10	38%	3%

Surrogates		Spike Amount	% Rec	% RSD
2-Flourophenol	3.1	10	31%	7%
Phenol-d6	3.9	10	39%	-7%
Nitrobenzene-d5	4	10	40%	19%
2-Fluorobiphenyl	3.9	10	39%	-3%
2,4,6-Tribromophenol	5	10	50%	-6%
p-Terphenyl-d14	7.2	10	72%	-4%

Dilution Factor	1
% Solid	100

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ0907.D
Analysis Date: 23-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-23 (4-5') (MS)
Lab ID: NAL00125-001
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	3.5	ug/Kg	10	35%
2-Methylnaphthalene	3.5	ug/Kg	10	35%
Acenaphthylene	4.9	ug/Kg	10	49%
Acenaphthene	5.5	ug/Kg	10	55%
Fluorene	5.5	ug/Kg	10	55%
Phenanthrene	6.5	ug/Kg	10	65%
Anthracene	6.1	ug/Kg	10	61%
Fluoranthene	6.5	ug/Kg	10	65%
Pyrene	6.7	ug/Kg	10	67%
Benzo (a) Anthracene	5.6	ug/Kg	10	56%
Chrysene	6.5	ug/Kg	10	65%
Benzo (b)Fluoranthene	5.9	ug/Kg	10	59%
Benzo (k) Fluoranthene	10	ug/Kg	10	100%
Benzo (a) Pyrene	6.1	ug/Kg	10	61%
Indeno (1,2,3-cd) Pyrene	3.2	ug/Kg	10	32%
Dibenzo (a,h) Anthracene	3.7	ug/Kg	10	37%
Benzo (g,h,i) Perylene	3.7	ug/Kg	10	37%

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.9	10	29%
Phenol-d6	4.2	10	42%
Nitrobenzene-d5	3.3	10	33%
2-Fluorobiphenyl	4.0	10	40%
2,4,6-Tribromophenol	5.3	10	53%
p-Terphenyl-d14	7.5	10	75%

Dilution Factor	1
% Solid	100

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0969.D
Analysis Date: 25-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.7	ug/Kg	10	97%
2-Methylnaphthalene	9.4	ug/Kg	10	94%
Acenaphthylene	9.8	ug/Kg	10	98%
Acenaphthene	9.7	ug/Kg	10	97%
Fluorene	9.9	ug/Kg	10	99%
Phenanthrene	10	ug/Kg	10	100%
Anthracene	11	ug/Kg	10	110%
Fluoranthene	10	ug/Kg	10	100%
Pyrene	10	ug/Kg	10	100%
Benzo (a) Anthracene	9.1	ug/Kg	10	91%
Chrysene	9.7	ug/Kg	10	97%
Benzo (b)Fluoranthene	8.2	ug/Kg	10	82%
Benzo (k) Fluoranthene	8.9	ug/Kg	10	89%
Benzo (a) Pyrene	9.1	ug/Kg	10	91%
Indeno (1,2,3-cd) Pyrene	11	ug/Kg	10	110%
Dibenzo (a,h) Anthracene	11	ug/Kg	10	110%
Benzo (g,h,i) Perylene	12	ug/Kg	10	120%

Surrogates		Spike Amount	% Rec
2-Flourophenol	8.7	10	87%
Phenol-d6	8.2	10	82%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	8.9	10	89%
2,4,6-Tribromophenol	8.8	10	88%
p-Terphenyl-d14	9.3	10	93%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0970.D
Analysis Date: 25-May-01
Date Extracted: N/A
Operator: MES
Sample ID: INSTRUMENT BLANK
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	8.7	10	87%
Phenol-d6	8.1	10	81%
Nitrobenzene-d5	8.6	10	86%
2-Fluorobiphenyl	8.9	10	89%
2,4,6-Tribromophenol	8.0	10	80%
p-Terphenyl-d14	11	10	110%
Dilution Factor	1		
% Solid	N/A		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1007.D
Analysis Date: 29-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: METHOD BLANK (S-5)
Lab ID: N/A
Matrix: Soil
Date Sampled: 29-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.5	10	35%
Phenol-d6	3.7	10	37%
Nitrobenzene-d5	8.3	10	83%
2-Fluorobiphenyl	5.0	10	50%
2,4,6-Tribromophenol	4.5	10	45%
p-Terphenyl-d14	6.5	10	65%

Dilution Factor	1
% Solid	100

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1006.D
Analysis Date: 29-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.2	ug/Kg	10	92%
2-Methylnaphthalene	9.5	ug/Kg	10	95%
Acenaphthylene	9.2	ug/Kg	10	92%
Acenaphthene	9.5	ug/Kg	10	95%
Fluorene	10	ug/Kg	10	100%
Phenanthrene	9.4	ug/Kg	10	94%
Anthracene	9.9	ug/Kg	10	99%
Fluoranthene	11	ug/Kg	10	110%
Pyrene	11	ug/Kg	10	110%
Benzo (a) Anthracene	9.8	ug/Kg	10	98%
Chrysene	9.6	ug/Kg	10	96%
Benzo (b)Fluoranthene	8.6	ug/Kg	10	86%
Benzo (k) Fluoranthene	10	ug/Kg	10	100%
Benzo (a) Pyrene	8.8	ug/Kg	10	88%
Indeno (1,2,3-cd) Pyrene	11	ug/Kg	10	110%
Dibenzo (a,h) Anthracene	11	ug/Kg	10	110%
Benzo (g,h,i) Perylene	11	ug/Kg	10	110%

Surrogates		Spike Amount	% Rec
2-Flourophenol	9.8	10	98%
Phenol-d6	9.4	10	94%
Nitrobenzene-d5	11	10	110%
2-Fluorobiphenyl	11	10	110%
2,4,6-Tribromophenol	12	10	120%
p-Terphenyl-d14	12	10	120%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0989.D
Analysis Date: 29-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: METHOD BLANK (S-4)
Lab ID: N/A
Matrix: Soil
Date Sampled: 29-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.0	10	30%
Phenol-d6	4.2	10	42%
Nitrobenzene-d5	8.5	10	85%
2-Fluorobiphenyl	6.1	10	61%
2,4,6-Tribromophenol	5.1	10	51%
p-Terphenyl-d14	7.1	10	71%
Dilution Factor	1		
% Solid	100		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0988.D
Analysis Date: 29-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	8.7	ug/Kg	10	87%
2-Methylnaphthalene	8.2	ug/Kg	10	82%
Acenaphthylene	9.2	ug/Kg	10	92%
Acenaphthene	9.2	ug/Kg	10	92%
Fluorene	9.8	ug/Kg	10	98%
Phenanthrene	9.8	ug/Kg	10	98%
Anthracene	9.9	ug/Kg	10	99%
Fluoranthene	11	ug/Kg	10	110%
Pyrene	11	ug/Kg	10	110%
Benzo (a) Anthracene	9.5	ug/Kg	10	95%
Chrysene	9.2	ug/Kg	10	92%
Benzo (b)Fluoranthene	9.9	ug/Kg	10	99%
Benzo (k) Fluoranthene	9.4	ug/Kg	10	94%
Benzo (a) Pyrene	8.7	ug/Kg	10	87%
Indeno (1,2,3-cd) Pyrene	12	ug/Kg	10	120%
Dibenzo (a,h) Anthracene	12	ug/Kg	10	120%
Benzo (g,h,i) Perylene	13	ug/Kg	10	130%

Surrogates		Spike Amount	% Rec
2-Flourophenol	9.3	10	93%
Phenol-d6	9.3	10	93%
Nitrobenzene-d5	9.7	10	97%
2-Fluorobiphenyl	11	10	110%
2,4,6-Tribromophenol	12	10	120%
p-Terphenyl-d14	11	10	110%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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710 Avis Drive
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1010.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01 (5-6') (MSD)
Lab ID: NAL00126-085
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec	% RSD
Naphthalene	18	ug/Kg	10	180%	-11%
2-Methylnaphthalene	9.7	ug/Kg	10	97%	-13%
Acenaphthylene	5.7	ug/Kg	10	57%	13%
Acenaphthene	5.8	ug/Kg	10	58%	5%
Fluorene	6.1	ug/Kg	10	61%	5%
Phenanthrene	6.1	ug/Kg	10	61%	7%
Anthracene	6.1	ug/Kg	10	61%	7%
Fluoranthene	6.5	ug/Kg	10	65%	13%
Pyrene	6.5	ug/Kg	10	65%	11%
Benzo (a) Anthracene	5.2	ug/Kg	10	52%	10%
Chrysene	5.7	ug/Kg	10	57%	2%
Benzo (b)Fluoranthene	4.1	ug/Kg	10	41%	16%
Benzo (k) Fluoranthene	5.5	ug/Kg	10	55%	16%
Benzo (a) Pyrene	4.1	ug/Kg	10	41%	13%
Indeno (1,2,3-cd) Pyrene	3.4	ug/Kg	10	34%	13%
Dibenzo (a,h) Anthracene	3.4	ug/Kg	10	34%	13%
Benzo (g,h,i) Perylene	3.7	ug/Kg	10	37%	8%

Surrogates		Spike Amount	% Rec	% RSD
2-Flourophenol	6.4	10	64%	25%
Phenol-d6	3.2	10	32%	29%
Nitrobenzene-d5	11	10	110%	0%
2-Fluorobiphenyl	6.7	10	67%	6%
2,4,6-Tribromophenol	7.1	10	71%	3%
p-Terphenyl-d14	7.7	10	77%	7%

Dilution Factor	1
% Solid	90%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ1009.D
Analysis Date: 29-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01 (5-6') (MS)
Lab ID: NAL00125-085
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	20	ug/Kg	10	200%
2-Methylnaphthalene	11	ug/Kg	10	110%
Acenaphthylene	5.0	ug/Kg	10	50%
Acenaphthene	5.5	ug/Kg	10	55%
Fluorene	5.8	ug/Kg	10	58%
Phenanthrene	5.7	ug/Kg	10	57%
Anthracene	5.7	ug/Kg	10	57%
Fluoranthene	5.7	ug/Kg	10	57%
Pyrene	5.8	ug/Kg	10	58%
Benzo (a) Anthracene	4.7	ug/Kg	10	47%
Chrysene	5.6	ug/Kg	10	56%
Benzo (b)Fluoranthene	3.5	ug/Kg	10	35%
Benzo (k) Fluoranthene	4.7	ug/Kg	10	47%
Benzo (a) Pyrene	3.6	ug/Kg	10	36%
Indeno (1,2,3-cd) Pyrene	3.0	ug/Kg	10	30%
Dibenzo (a,h) Anthracene	3.0	ug/Kg	10	30%
Benzo (g,h,i) Perylene	3.4	ug/Kg	10	34%

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.0	10	50%
Phenol-d6	2.4	10	24%
Nitrobenzene-d5	11	10	110%
2-Fluorobiphenyl	6.3	10	63%
2,4,6-Tribromophenol	6.9	10	69%
p-Terphenyl-d14	7.2	10	72%

Dilution Factor	1
% Solid	90%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #4 (Soil)

New Age/Landmark
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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0969.D
Analysis Date: 25-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.7	ug/Kg	10	97%
2-Methylnaphthalene	9.4	ug/Kg	10	94%
Acenaphthylene	9.8	ug/Kg	10	98%
Acenaphthene	9.7	ug/Kg	10	97%
Fluorene	9.9	ug/Kg	10	99%
Phenanthrene	10	ug/Kg	10	100%
Anthracene	11	ug/Kg	10	110%
Fluoranthene	10	ug/Kg	10	100%
Pyrene	10	ug/Kg	10	100%
Benzo (a) Anthracene	9.1	ug/Kg	10	91%
Chrysene	9.7	ug/Kg	10	97%
Benzo (b)Fluoranthene	8.2	ug/Kg	10	82%
Benzo (k) Fluoranthene	8.9	ug/Kg	10	89%
Benzo (a) Pyrene	9.1	ug/Kg	10	91%
Indeno (1,2,3-cd) Pyrene	11	ug/Kg	10	110%
Dibenzo (a,h) Anthracene	11	ug/Kg	10	110%
Benzo (g,h,i) Perylene	12	ug/Kg	10	120%

Surrogates		Spike Amount	% Rec
2-Flourophenol	8.7	10	87%
Phenol-d6	8.2	10	82%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	8.9	10	89%
2,4,6-Tribromophenol	8.8	10	88%
p-Terphenyl-d14	9.3	10	93%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0970.D
Analysis Date: 25-May-01
Date Extracted: N/A
Operator: MES
Sample ID: INSTRUMENT BLANK
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	8.7	10	87%
Phenol-d6	8.1	10	81%
Nitrobenzene-d5	8.6	10	86%
2-Fluorobiphenyl	8.9	10	89%
2,4,6-Tribromophenol	8.0	10	80%
p-Terphenyl-d14	11	10	110%

Dilution Factor	1
% Solid	N/A

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1031.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-35 (16-17') (MS)
Lab ID: NAL00125-097
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	6.3	ug/Kg	10	63%
2-Methylnaphthalene	6.3	ug/Kg	10	63%
Acenaphthylene	5.4	ug/Kg	10	54%
Acenaphthene	6.3	ug/Kg	10	63%
Fluorene	8.7	ug/Kg	10	87%
Phenanthrene	6.3	ug/Kg	10	63%
Anthracene	5.9	ug/Kg	10	59%
Fluoranthene	6.3	ug/Kg	10	63%
Pyrene	5.5	ug/Kg	10	55%
Benzo (a) Anthracene	5.4	ug/Kg	10	54%
Chrysene	6.4	ug/Kg	10	64%
Benzo (b)Fluoranthene	4.9	ug/Kg	10	49%
Benzo (k) Fluoranthene	5.7	ug/Kg	10	57%
Benzo (a) Pyrene	5.2	ug/Kg	10	52%
Indeno (1,2,3-cd) Pyrene	9.1	ug/Kg	10	91%
Dibenzo (a,h) Anthracene	9.0	ug/Kg	10	90%
Benzo (g,h,i) Perylene	9.1	ug/Kg	10	91%

Surrogates		Spike Amount	% Rec
2-Flourophenol	6.7	10	67%
Phenol-d6	6.7	10	67%
Nitrobenzene-d5	9.0	10	90%
2-Fluorobiphenyl	6.2	10	62%
2,4,6-Tribromophenol	7.6	10	76%
p-Terphenyl-d14	4.8	10	48%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1032.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-35 (16-17') (MSD)
Lab ID: NAL00125-097
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec	% RSD
Naphthalene	5.4	ug/Kg	10	54%	-15%
2-Methylnaphthalene	7.5	ug/Kg	10	75%	17%
Acenaphthylene	5.9	ug/Kg	10	59%	9%
Acenaphthene	6.2	ug/Kg	10	62%	-2%
Fluorene	6.6	ug/Kg	10	66%	-27%
Phenanthrene	6.9	ug/Kg	10	69%	9%
Anthracene	6.3	ug/Kg	10	63%	7%
Fluoranthene	6.7	ug/Kg	10	67%	6%
Pyrene	6.4	ug/Kg	10	64%	15%
Benzo (a) Anthracene	6	ug/Kg	10	60%	11%
Chrysene	6.6	ug/Kg	10	66%	3%
Benzo (b)Fluoranthene	5	ug/Kg	10	50%	2%
Benzo (k) Fluoranthene	6.4	ug/Kg	10	64%	12%
Benzo (a) Pyrene	5.5	ug/Kg	10	55%	6%
Indeno (1,2,3-cd) Pyrene	8.6	ug/Kg	10	86%	-6%
Dibenzo (a,h) Anthracene	8.5	ug/Kg	10	85%	-6%
Benzo (g,h,i) Perylene	11	ug/Kg	10	110%	19%

Surrogates		Spike Amount	% Rec	% RSD
2-Flourophenol	5.2	10	52%	-25%
Phenol-d6	5.8	10	58%	-14%
Nitrobenzene-d5	11	10	110%	20%
2-Fluorobiphenyl	5.7	10	57%	-8%
2,4,6-Tribromophenol	8.0	10	80%	5%
p-Terphenyl-d14	6.7	10	67%	33%
Dilution Factor	1			
% Solid	100%			

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0988.D
Analysis Date: 29-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	8.7	ug/Kg	10	87%
2-Methylnaphthalene	8.2	ug/Kg	10	82%
Acenaphthylene	9.2	ug/Kg	10	92%
Acenaphthene	9.2	ug/Kg	10	92%
Fluorene	9.8	ug/Kg	10	98%
Phenanthrene	9.8	ug/Kg	10	98%
Anthracene	9.9	ug/Kg	10	99%
Fluoranthene	11	ug/Kg	10	110%
Pyrene	11	ug/Kg	10	110%
Benzo (a) Anthracene	9.5	ug/Kg	10	95%
Chrysene	9.2	ug/Kg	10	92%
Benzo (b)Fluoranthene	9.9	ug/Kg	10	99%
Benzo (k) Fluoranthene	9.4	ug/Kg	10	94%
Benzo (a) Pyrene	8.7	ug/Kg	10	87%
Indeno (1,2,3-cd) Pyrene	12	ug/Kg	10	120%
Dibenzo (a,h) Anthracene	12	ug/Kg	10	120%
Benzo (g,h,i) Perylene	13	ug/Kg	10	130%

Surrogates		Spike Amount	% Rec
2-Flourophenol	9.3	10	93%
Phenol-d6	9.3	10	93%
Nitrobenzene-d5	9.7	10	97%
2-Fluorobiphenyl	11	10	110%
2,4,6-Tribromophenol	12	10	120%
p-Terphenyl-d14	11	10	110%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0989.D
Analysis Date: 29-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: METHOD BLANK (S-4)
Lab ID: N/A
Matrix: N/A
Date Sampled: 29-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.0	10	30%
Phenol-d6	4.2	10	42%
Nitrobenzene-d5	8.5	10	85%
2-Fluorobiphenyl	6.1	10	61%
2,4,6-Tribromophenol	5.1	10	51%
p-Terphenyl-d14	7.1	10	71%

Dilution Factor	1
% Solid	100

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1006.D
Analysis Date: 29-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.2	ug/Kg	10	92%
2-Methylnaphthalene	9.5	ug/Kg	10	95%
Acenaphthylene	9.2	ug/Kg	10	92%
Acenaphthene	9.5	ug/Kg	10	95%
Fluorene	10	ug/Kg	10	100%
Phenanthrene	9.4	ug/Kg	10	94%
Anthracene	9.9	ug/Kg	10	99%
Fluoranthene	11	ug/Kg	10	110%
Pyrene	11	ug/Kg	10	110%
Benzo (a) Anthracene	9.8	ug/Kg	10	98%
Chrysene	9.6	ug/Kg	10	96%
Benzo (b)Fluoranthene	8.6	ug/Kg	10	86%
Benzo (k) Fluoranthene	10	ug/Kg	10	100%
Benzo (a) Pyrene	8.8	ug/Kg	10	88%
Indeno (1,2,3-cd) Pyrene	11	ug/Kg	10	110%
Dibenzo (a,h) Anthracene	11	ug/Kg	10	110%
Benzo (g,h,i) Perylene	11	ug/Kg	10	110%

Surrogates		Spike Amount	% Rec
2-Flourophenol	9.8	10	98%
Phenol-d6	9.4	10	94%
Nitrobenzene-d5	11	10	110%
2-Fluorobiphenyl	11	10	110%
2,4,6-Tribromophenol	12	10	120%
p-Terphenyl-d14	12	10	120%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #5 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1007.D
Analysis Date: 29-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: METHOD BLANK (S-5)
Lab ID: N/A
Matrix: N/A
Date Sampled: 29-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.5	10	35%
Phenol-d6	3.7	10	37%
Nitrobenzene-d5	8.3	10	83%
2-Fluorobiphenyl	5.0	10	50%
2,4,6-Tribromophenol	4.5	10	45%
p-Terphenyl-d14	6.5	10	65%

Dilution Factor	1
% Solid	100

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1029.D
Analysis Date: 30-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.1	ug/Kg	10	91%
2-Methylnaphthalene	10	ug/Kg	10	100%
Acenaphthylene	8.5	ug/Kg	10	85%
Acenaphthene	9.2	ug/Kg	10	92%
Fluorene	9.3	ug/Kg	10	93%
Phenanthrene	9.5	ug/Kg	10	95%
Anthracene	8.1	ug/Kg	10	81%
Fluoranthene	9.7	ug/Kg	10	97%
Pyrene	9.7	ug/Kg	10	97%
Benzo (a) Anthracene	10	ug/Kg	10	100%
Chrysene	9.1	ug/Kg	10	91%
Benzo (b)Fluoranthene	10	ug/Kg	10	100%
Benzo (k) Fluoranthene	8.9	ug/Kg	10	89%
Benzo (a) Pyrene	8.2	ug/Kg	10	82%
Indeno (1,2,3-cd) Pyrene	11	ug/Kg	10	110%
Dibenzo (a,h) Anthracene	11	ug/Kg	10	110%
Benzo (g,h,i) Perylene	11	ug/Kg	10	110%

Surrogates		Spike Amount	% Rec
2-Flourophenol	11	10	110%
Phenol-d6	10	10	100%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	7.9	10	79%
2,4,6-Tribromophenol	8.1	10	81%
p-Terphenyl-d14	8.2	10	82%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1030.D
Analysis Date: 30-May-01
Date Extracted: 30-May-01
Operator: MES
Sample ID: METHOD BLANK (S-6)
Lab ID: N/A
Matrix: Water
Date Sampled: 30-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/L	5
2-Methylnaphthalene	ND	ug/L	5
Acenaphthylene	ND	ug/L	5
Acenapbthene	ND	ug/L	5
Fluorene	ND	ug/L	5
Phenanthrene	ND	ug/L	5
Anthracene	ND	ug/L	5
Fluoranthene	ND	ug/L	5
Pyrene	ND	ug/L	5
Benzo (a) Anthracene	ND	ug/L	5
Chrysene	ND	ug/L	5
Benzo (b)Fluoranthene	ND	ug/L	5
Benzo (k) Fluoranthene	ND	ug/L	5
Benzo (a) Pyrene	ND	ug/L	5
Indeno (1,2,3-cd) Pyrene	ND	ug/L	5
Dibenzo (a,h) Anthracene	ND	ug/L	5
Benzo (g,h,i) Perylene	ND	ug/L	5

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.9	10	29%
Phenol-d6	2.1	10	21%
Nitrobenzene-d5	8.5	10	85%
2-Fluorobiphenyl	4.4	10	44%
2,4,6-Tribromophenol	2.0	10	20%
p-Terphenyl-d14	9.4	10	94%

Dilution Factor	1
% Solid	N/A

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1029.D
Analysis Date: 30-May-01
Date Extracted: N/A
Operator: MES
Sample ID: CCV @ 10 NG
Lab ID: N/A
Matrix: N/A
Date Sampled: N/A
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	9.1	ug/L	10	91%
2-Methylnaphthalene	10	ug/L	10	100%
Acenaphthylene	8.5	ug/L	10	85%
Acenaphthene	9.2	ug/L	10	92%
Fluorene	9.3	ug/L	10	93%
Phenanthrene	9.5	ug/L	10	95%
Anthracene	8.1	ug/L	10	81%
Fluoranthene	9.7	ug/L	10	97%
Pyrene	9.7	ug/L	10	97%
Benzo (a) Anthracene	10	ug/L	10	100%
Chrysene	9.1	ug/L	10	91%
Benzo (b)Fluoranthene	10	ug/L	10	100%
Benzo (k) Fluoranthene	8.9	ug/L	10	89%
Benzo (a) Pyrene	8.2	ug/L	10	82%
Indeno (1,2,3-cd) Pyrene	11	ug/L	10	110%
Dibenzo (a,h) Anthracene	11	ug/L	10	110%
Benzo (g,h,i) Perylene	11	ug/L	10	110%

Surrogates		Spike Amount	% Rec
2-Flourophenol	11	10	110%
Phenol-d6	10	10	100%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	7.9	10	79%
2,4,6-Tribromophenol	8.1	10	81%
p-Terphenyl-d14	8.2	10	82%

Dilution Factor
% Solid

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1030.D
Analysis Date: 30-May-01
Date Extracted: 30-May-01
Operator: MES
Sample ID: METHOD BLANK (S-6)
Lab ID: N/A
Matrix: Water
Date Sampled: 30-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/L	5
2-Methylnaphthalene	ND	ug/L	5
Acenaphthylene	ND	ug/L	5
Acenaphthene	ND	ug/L	5
Fluorene	ND	ug/L	5
Phenanthrene	ND	ug/L	5
Anthracene	ND	ug/L	5
Fluoranthene	ND	ug/L	5
Pyrene	ND	ug/L	5
Benzo (a) Anthracene	ND	ug/L	5
Chrysene	ND	ug/L	5
Benzo (b)Fluoranthene	ND	ug/L	5
Benzo (k) Fluoranthene	ND	ug/L	5
Benzo (a) Pyrene	ND	ug/L	5
Indeno (1,2,3-cd) Pyrene	ND	ug/L	5
Dibenzo (a,h) Anthracene	ND	ug/L	5
Benzo (g,h,i) Perylene	ND	ug/L	5

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.8	10	28%
Phenol-d6	2.1	10	21%
Nitrobenzene-d5	8.5	10	85%
2-Fluorobiphenyl	4.4	10	44%
2,4,6-Tribromophenol	2.0	10	20%
p-Terphenyl-d14	9.4	10	94%

Dilution Factor	1
% Solid	N/A

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file:
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-35 (16-17') (MS)
Lab ID: NAL00125-097
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec
Naphthalene	6.3	ug/L	10	63%
2-Methylnaphthalene	6.3	ug/L	10	63%
Acenaphthylene	5.4	ug/L	10	54%
Acenaphthene	6.3	ug/L	10	63%
Fluorene	8.7	ug/L	10	87%
Phenanthrene	6.3	ug/L	10	63%
Anthracene	5.9	ug/L	10	59%
Fluoranthene	6.3	ug/L	10	63%
Pyrene	5.5	ug/L	10	55%
Benzo (a) Anthracene	5.4	ug/L	10	54%
Chrysene	6.4	ug/L	10	64%
Benzo (b)Fluoranthene	4.9	ug/L	10	49%
Benzo (k) Fluoranthene	5.7	ug/L	10	57%
Benzo (a) Pyrene	5.2	ug/L	10	52%
Indeno (1,2,3-cd) Pyrene	9.1	ug/L	10	91%
Dibenzo (a,h) Anthracene	9.0	ug/L	10	90%
Benzo (g,h,i) Perylene	9.1	ug/L	10	91%

Surrogates		Spike Amount	% Rec
2-Flourophenol	6.7	10	67%
Phenol-d6	6.7	10	67%
Nitrobenzene-d5	9.0	10	90%
2-Fluorobiphenyl	6.2	10	62%
2,4,6-Tribromophenol	7.6	10	76%
p-Terphenyl-d14	4.8	10	48%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file:
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-35 (16-17') (MSD)
Lab ID: NAL00125-097
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	SPIKE AMOUNT	% Rec	% RSD
Naphthalene	5.4	ug/L	10	54%	-15%
2-Methylnaphthalene	7.5	ug/L	10	75%	17%
Acenaphthylene	5.9	ug/L	10	59%	9%
Acenaphthene	6.2	ug/L	10	62%	-2%
Fluorene	6.6	ug/L	10	66%	-27%
Phenanthrene	6.9	ug/L	10	69%	9%
Anthracene	6.3	ug/L	10	63%	7%
Fluoranthene	6.7	ug/L	10	67%	6%
Pyrene	6.4	ug/L	10	64%	15%
Benzo (a) Anthracene	6	ug/L	10	60%	11%
Chrysene	6.6	ug/L	10	66%	3%
Benzo (b)Fluoranthene	5	ug/L	10	50%	2%
Benzo (k) Fluoranthene	6.4	ug/L	10	64%	12%
Benzo (a) Pyrene	5.5	ug/L	10	55%	6%
Indeno (1,2,3-cd) Pyrene	8.6	ug/L	10	86%	-6%
Dibenzo (a,h) Anthracene	8.5	ug/L	10	85%	-6%
Benzo (g,h,i) Perylene	11	ug/L	10	110%	19%

Surrogates		Spike Amount	% Rec	% RSD
2-Flourophenol	5.2	10	52%	-25%
Phenol-d6	5.8	10	58%	-14%
Nitrobenzene-d5	11	10	110%	20%
2-Fluorobiphenyl	5.7	10	57%	-8%
2,4,6-Tribromophenol	8.0	10	80%	5%
p-Terphenyl-d14	6.7	10	67%	33%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1014.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-50 (20-21')
Lab ID: NAL00125-084
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.4	10	44%
Phenol-d6	4.6	10	46%
Nitrobenzene-d5	9.1	10	91%
2-Fluorobiphenyl	6.0	10	60%
2,4,6-Tribromophenol	4.1	10	41%
p-Terphenyl-d14	6.7	10	67%

Dilution Factor	1
% Solid	80%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #5 (Soil)

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Data file: NALJ1013.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-50 (16-17')
Lab ID: NAL00125-083
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	367
2-Methylnaphthalene	ND	ug/Kg	367
Acenaphthylene	ND	ug/Kg	367
Acenaphthene	ND	ug/Kg	367
Fluorene	ND	ug/Kg	367
Phenanthrene	ND	ug/Kg	367
Anthracene	ND	ug/Kg	367
Fluoranthene	ND	ug/Kg	367
Pyrene	ND	ug/Kg	367
Benzo (a) Anthracene	ND	ug/Kg	367
Chrysene	ND	ug/Kg	367
Benzo (b)Fluoranthene	ND	ug/Kg	367
Benzo (k) Fluoranthene	ND	ug/Kg	367
Benzo (a) Pyrene	ND	ug/Kg	367
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	367
Dibenzo (a,h) Anthracene	ND	ug/Kg	367
Benzo (g,h,i) Perylene	ND	ug/Kg	367

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.7	10	37%
Phenol-d6	4.2	10	42%
Nitrobenzene-d5	8.2	10	82%
2-Fluorobiphenyl	5.6	10	56%
2,4,6-Tribromophenol	4.6	10	46%
p-Terphenyl-d14	6.2	10	62%
Dilution Factor	1		
% Solid	90%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #5 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1012.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-50 (11-12')
Lab ID: NAL00125-082
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.7	10	27%
Phenol-d6	3.2	10	32%
Nitrobenzene-d5	6.1	10	61%
2-Fluorobiphenyl	4.5	10	45%
2,4,6-Tribromophenol	4.4	10	44%
p-Terphenyl-d14	6.6	10	66%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1011.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-50 (3-4')
Lab ID: NAL00125-081
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.9	10	29%
Phenol-d6	3.7	10	37%
Nitrobenzene-d5	8.3	10	83%
2-Fluorobiphenyl	5.6	10	56%
2,4,6-Tribromophenol	4.8	10	48%
p-Terphenyl-d14	6.7	10	67%
Dilution Factor	1		
% Solid	100%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #5 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1008.D
Analysis Date: 29-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-49 (11-12')
Lab ID: NAL00125-078
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.6	10	46%
Phenol-d6	4.8	10	48%
Nitrobenzene-d5	12	10	120%
2-Fluorobiphenyl	7.4	10	74%
2,4,6-Tribromophenol	6.5	10	65%
p-Terphenyl-d14	8.2	10	82%

Dilution Factor	1
% Solid	80%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ1004.D
Analysis Date: 29-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-49 (7-8')
Lab ID: NAL00125-077
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.5	10	35%
Phenol-d6	3.7	10	37%
Nitrobenzene-d5	8.4	10	84%
2-Fluorobiphenyl	5.7	10	57%
2,4,6-Tribromophenol	4.7	10	47%
p-Terphenyl-d14	6.7	10	67%
Dilution Factor	1		
% Solid	80%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #4 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1003.D
Analysis Date: 29-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-49 (3-4')
Lab ID: NAL00125-076
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	471
2-Methylnaphthalene	ND	ug/Kg	471
Acenaphthylene	ND	ug/Kg	471
Acenaphthene	ND	ug/Kg	471
Fluorene	ND	ug/Kg	471
Phenanthrene	ND	ug/Kg	471
Anthracene	ND	ug/Kg	471
Fluoranthene	ND	ug/Kg	471
Pyrene	ND	ug/Kg	471
Benzo (a) Anthracene	ND	ug/Kg	471
Chrysene	ND	ug/Kg	471
Benzo (b)Fluoranthene	ND	ug/Kg	471
Benzo (k) Fluoranthene	ND	ug/Kg	471
Benzo (a) Pyrene	ND	ug/Kg	471
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	471
Dibenzo (a,h) Anthracene	ND	ug/Kg	471
Benzo (g,h,i) Perylene	ND	ug/Kg	471

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.2	10	32%
Phenol-d6	3.4	10	34%
Nitrobenzene-d5	7.9	10	79%
2-Fluorobiphenyl	4.8	10	48%
2,4,6-Tribromophenol	4.5	10	45%
p-Terphenyl-d14	5.3	10	53%

Dilution Factor	1
% Solid	70%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1002.D
Analysis Date: 29-May-10
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-48 (15-16')
Lab ID: NAL00125-075
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	440
2-Methylnaphthalene	ND	ug/Kg	440
Acenaphthylene	ND	ug/Kg	440
Acenaphthene	ND	ug/Kg	440
Fluorene	ND	ug/Kg	440
Phenanthrene	ND	ug/Kg	440
Anthracene	ND	ug/Kg	440
Fluoranthene	ND	ug/Kg	440
Pyrene	ND	ug/Kg	440
Benzo (a) Anthracene	ND	ug/Kg	440
Chrysene	ND	ug/Kg	440
Benzo (b)Fluoranthene	ND	ug/Kg	440
Benzo (k) Fluoranthene	ND	ug/Kg	440
Benzo (a) Pyrene	ND	ug/Kg	440
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	440
Dibenzo (a,h) Anthracene	ND	ug/Kg	440
Benzo (g,h,i) Perylene	ND	ug/Kg	440

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.7	10	27%
Phenol-d6	2.9	10	29%
Nitrobenzene-d5	6.3	10	63%
2-Fluorobiphenyl	4.2	10	42%
2,4,6-Tribromophenol	3.3	10	33%
p-Terphenyl-d14	5.1	10	51%

Dilution Factor	1
% Solid	75%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1025.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-48 (11-12')
Lab ID: NAL00125-074
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	407
2-Methylnaphthalene	ND	ug/Kg	407
Acenaphthylene	ND	ug/Kg	407
Acenaphthene	ND	ug/Kg	407
Fluorene	ND	ug/Kg	407
Phenanthrene	ND	ug/Kg	407
Anthracene	ND	ug/Kg	407
Fluoranthene	ND	ug/Kg	407
Pyrene	ND	ug/Kg	407
Benzo (a) Anthracene	ND	ug/Kg	407
Chrysene	ND	ug/Kg	407
Benzo (b)Fluoranthene	ND	ug/Kg	407
Benzo (k) Fluoranthene	ND	ug/Kg	407
Benzo (a) Pyrene	ND	ug/Kg	407
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	407
Dibenzo (a,h) Anthracene	ND	ug/Kg	407
Benzo (g,h,i) Perylene	ND	ug/Kg	407

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.9	10	29%
Phenol-d6	3.7	10	37%
Nitrobenzene-d5	5.1	10	51%
2-Fluorobiphenyl	4.8	10	48%
2,4,6-Tribromophenol	2.6	10	26%
p-Terphenyl-d14	5.3	10	53%
Dilution Factor	1		
% Solid	81%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #5 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1024.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-48 (5-6')
Lab ID: NAL00125-073
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.3	10	33%
Phenol-d6	4.0	10	40%
Nitrobenzene-d5	5.9	10	59%
2-Fluorobiphenyl	5.1	10	51%
2,4,6-Tribromophenol	2.7	10	27%
p-Terphenyl-d14	6.1	10	61%

Dilution Factor	1
% Solid	80%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1001.D
Analysis Date: 29-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-47 (11-12')
Lab ID: NAL00125-071
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	402
2-Methylnaphthalene	ND	ug/Kg	402
Acenaphthylene	ND	ug/Kg	402
Acenaphthene	ND	ug/Kg	402
Fluorene	ND	ug/Kg	402
Phenanthrene	ND	ug/Kg	402
Anthracene	ND	ug/Kg	402
Fluoranthene	ND	ug/Kg	402
Pyrene	ND	ug/Kg	402
Benzo (a) Anthracene	ND	ug/Kg	402
Chrysene	ND	ug/Kg	402
Benzo (b)Fluoranthene	ND	ug/Kg	402
Benzo (k) Fluoranthene	ND	ug/Kg	402
Benzo (a) Pyrene	ND	ug/Kg	402
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	402
Dibenzo (a,h) Anthracene	ND	ug/Kg	402
Benzo (g,h,i) Perylene	ND	ug/Kg	402

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.6	10	26%
Phenol-d6	2.9	10	29%
Nitrobenzene-d5	6.7	10	67%
2-Fluorobiphenyl	4.8	10	48%
2,4,6-Tribromophenol	4.3	10	43%
p-Terphenyl-d14	6.6	10	66%

Dilution Factor	1
% Solid	82%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #4 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1000.D
Analysis Date: 29-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-47 (8-9')
Lab ID: NAL00125-070
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	384
2-Methylnaphthalene	ND	ug/Kg	384
Acenaphthylene	ND	ug/Kg	384
Acenaphthene	ND	ug/Kg	384
Fluorene	ND	ug/Kg	384
Phenanthrene	ND	ug/Kg	384
Anthracene	ND	ug/Kg	384
Fluoranthene	ND	ug/Kg	384
Pyrene	ND	ug/Kg	384
Benzo (a) Anthracene	ND	ug/Kg	384
Chrysene	ND	ug/Kg	384
Benzo (b)Fluoranthene	ND	ug/Kg	384
Benzo (k) Fluoranthene	ND	ug/Kg	384
Benzo (a) Pyrene	ND	ug/Kg	384
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	384
Dibenzo (a,h) Anthracene	ND	ug/Kg	384
Benzo (g,h,i) Perylene	ND	ug/Kg	384

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.2	10	32%
Phenol-d6	3.4	10	34%
Nitrobenzene-d5	7.3	10	73%
2-Fluorobiphenyl	5.3	10	53%
2,4,6-Tribromophenol	4.2	10	42%
p-Terphenyl-d14	5.6	10	56%
Dilution Factor	1		
% Solid	86%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0999.D
Analysis Date: 29-May-10
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-47 (4-5')
Lab ID: NAL00125-069
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	359
2-Methylnaphthalene	ND	ug/Kg	359
Acenaphthylene	ND	ug/Kg	359
Acenaphthene	ND	ug/Kg	359
Fluorene	ND	ug/Kg	359
Phenanthrene	ND	ug/Kg	359
Anthracene	ND	ug/Kg	359
Fluoranthene	ND	ug/Kg	359
Pyrene	ND	ug/Kg	359
Benzo (a) Anthracene	ND	ug/Kg	359
Chrysene	ND	ug/Kg	359
Benzo (b)Fluoranthene	ND	ug/Kg	359
Benzo (k) Fluoranthene	ND	ug/Kg	359
Benzo (a) Pyrene	ND	ug/Kg	359
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	359
Dibenzo (a,h) Anthracene	ND	ug/Kg	359
Benzo (g,h,i) Perylene	ND	ug/Kg	359

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.0	10	30%
Phenol-d6	3.2	10	32%
Nitrobenzene-d5	7.5	10	75%
2-Fluorobiphenyl	4.8	10	48%
2,4,6-Tribromophenol	4.1	10	41%
p-Terphenyl-d14	5.6	10	56%

Dilution Factor	1
% Solid	92%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0998.D
Analysis Date: 29-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-46 (20-21')
Lab ID: NAL00125-066
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	379
2-Methylnaphthalene	ND	ug/Kg	379
Acenaphthylene	ND	ug/Kg	379
Acenaphthene	ND	ug/Kg	379
Fluorene	ND	ug/Kg	379
Phenanthrene	ND	ug/Kg	379
Anthracene	ND	ug/Kg	379
Fluoranthene	ND	ug/Kg	379
Pyrene	ND	ug/Kg	379
Benzo (a) Anthracene	ND	ug/Kg	379
Chrysene	ND	ug/Kg	379
Benzo (b)Fluoranthene	ND	ug/Kg	379
Benzo (k) Fluoranthene	ND	ug/Kg	379
Benzo (a) Pyrene	ND	ug/Kg	379
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	379
Dibenzo (a,h) Anthracene	ND	ug/Kg	379
Benzo (g,h,i) Perylene	ND	ug/Kg	379

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.4	10	54%
Phenol-d6	5.6	10	56%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	8.1	10	81%
2,4,6-Tribromophenol	8.1	10	81%
p-Terphenyl-d14	9.6	10	96%
Dilution Factor	1		
% Solid	87%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0997.D
Analysis Date: 29-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-46 (17-18')
Lab ID: NAL00125-065
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	367
2-Methylnaphthalene	ND	ug/Kg	367
Acenaphthylene	ND	ug/Kg	367
Acenaphthene	ND	ug/Kg	367
Fluorene	ND	ug/Kg	367
Phenanthrene	ND	ug/Kg	367
Anthracene	ND	ug/Kg	367
Fluoranthene	ND	ug/Kg	367
Pyrene	ND	ug/Kg	367
Benzo (a) Anthracene	ND	ug/Kg	367
Chrysene	ND	ug/Kg	367
Benzo (b)Fluoranthene	ND	ug/Kg	367
Benzo (k) Fluoranthene	ND	ug/Kg	367
Benzo (a) Pyrene	ND	ug/Kg	367
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	367
Dibenzo (a,h) Anthracene	ND	ug/Kg	367
Benzo (g,h,i) Perylene	ND	ug/Kg	367

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.8	10	58%
Phenol-d6	6.6	10	66%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	9.7	10	97%
2,4,6-Tribromophenol	8.8	10	88%
p-Terphenyl-d14	11	10	110%

Dilution Factor	1
% Solid	90%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #4 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1033.D
Analysis Date: 30-May-01
Date Extracted: 30-May-01
Operator: MES
Sample ID: PB-01-46 (11-16')
Lab ID: NAL00125-068
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	4.0	ug/L	5
2-Methylnaphthalene	ND	ug/L	5
Acenaphthylene	ND	ug/L	5
Acenaphthene	ND	ug/L	5
Fluorene	ND	ug/L	5
Phenanthrene	ND	ug/L	5
Anthracene	ND	ug/L	5
Fluoranthene	ND	ug/L	5
Pyrene	ND	ug/L	5
Benzo (a) Anthracene	ND	ug/L	5
Chrysene	ND	ug/L	5
Benzo (b)Fluoranthene	ND	ug/L	5
Benzo (k) Fluoranthene	ND	ug/L	5
Benzo (a) Pyrene	ND	ug/L	5
Indeno (1,2,3-cd) Pyrene	ND	ug/L	5
Dibenzo (a,h) Anthracene	ND	ug/L	5
Benzo (g,h,i) Perylene	ND	ug/L	5

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.9	10	29%
Phenol-d6	1.1	10	11%
Nitrobenzene-d5	5.8	10	58%
2-Fluorobiphenyl	4.6	10	46%
2,4,6-Tribromophenol	1.3	10	13%
p-Terphenyl-d14	7.3	10	73%

Dilution Factor	1
% Solid	N/A

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #6 (Water)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0996.D
Analysis Date: 29-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-46 (10-11')
Lab ID: NAL00125-064
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	388
2-Methylnaphthalene	ND	ug/Kg	388
Acenaphthylene	ND	ug/Kg	388
Acenaphthene	ND	ug/Kg	388
Fluorene	ND	ug/Kg	388
Phenanthrene	ND	ug/Kg	388
Anthracene	ND	ug/Kg	388
Fluoranthene	ND	ug/Kg	388
Pyrene	ND	ug/Kg	388
Benzo (a) Anthracene	ND	ug/Kg	388
Chrysene	ND	ug/Kg	388
Benzo (b)Fluoranthene	ND	ug/Kg	388
Benzo (k) Fluoranthene	ND	ug/Kg	388
Benzo (a) Pyrene	ND	ug/Kg	388
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	388
Dibenzo (a,h) Anthracene	ND	ug/Kg	388
Benzo (g,h,i) Perylene	ND	ug/Kg	388

Surrogates		Spike Amount	% Rec
2-Flourophenol	6.0	10	60%
Phenol-d6	6.6	10	66%
Nitrobenzene-d5	11	10	110%
2-Fluorobiphenyl	9.3	10	93%
2,4,6-Tribromophenol	8.6	10	86%
p-Terphenyl-d14	11	10	110%

Dilution Factor	1
% Solid	85%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0995.D
Analysis Date: 29-May-10
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-46 (4-5')
Lab ID: NAL00125-063
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	7.4	10	74%
Phenol-d6	8.7	10	87%
Nitrobenzene-d5	11	10	110%
2-Fluorobiphenyl	11	10	110%
2,4,6-Tribromophenol	11	10	110%
p-Terphenyl-d14	13	10	130%
Dilution Factor	1		
% Solid	80%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #4 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0994.D
Analysis Date: 29-May-10
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-45 (14-15')
Lab ID: NAL00125-062
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	355
2-Methylnaphthalene	ND	ug/Kg	355
Acenaphthylene	ND	ug/Kg	355
Acenaphthene	ND	ug/Kg	355
Fluorene	ND	ug/Kg	355
Phenanthrene	ND	ug/Kg	355
Anthracene	ND	ug/Kg	355
Fluoranthene	ND	ug/Kg	355
Pyrene	ND	ug/Kg	355
Benzo (a) Anthracene	ND	ug/Kg	355
Chrysene	ND	ug/Kg	355
Benzo (b)Fluoranthene	ND	ug/Kg	355
Benzo (k) Fluoranthene	ND	ug/Kg	355
Benzo (a) Pyrene	ND	ug/Kg	355
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	355
Dibenzo (a,h) Anthracene	ND	ug/Kg	355
Benzo (g,h,i) Perylene	ND	ug/Kg	355

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.8	10	28%
Phenol-d6	3.0	10	30%
Nitrobenzene-d5	2.8	10	28%
2-Fluorobiphenyl	4.0	10	40%
2,4,6-Tribromophenol	1.9	10	19%
p-Terphenyl-d14	2.0	10	20%

Dilution Factor	1
% Solid	93%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0993.D
Analysis Date: 29-May-10
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-45 (12-13')
Lab ID: NAL00125-061
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	620 C	ug/Kg	440
2-Methylnaphthalene	ND	ug/Kg	440
Acenaphthylene	ND	ug/Kg	440
Acenaphthene	ND	ug/Kg	440
Fluorene	ND	ug/Kg	440
Phenanthrene	ND	ug/Kg	440
Anthracene	ND	ug/Kg	440
Fluoranthene	ND	ug/Kg	440
Pyrene	ND	ug/Kg	440
Benzo (a) Anthracene	ND	ug/Kg	440
Chrysene	ND	ug/Kg	440
Benzo (b)Fluoranthene	ND	ug/Kg	440
Benzo (k) Fluoranthene	ND	ug/Kg	440
Benzo (a) Pyrene	ND	ug/Kg	440
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	440
Dibenzo (a,h) Anthracene	ND	ug/Kg	440
Benzo (g,h,i) Perylene	ND	ug/Kg	440

Surrogates		Spike Amount	% Rec
2-Flourophenol	6.6	10	66%
Phenol-d6	6.5	10	65%
Nitrobenzene-d5	11	10	110%
2-Fluorobiphenyl	9.5	10	95%
2,4,6-Tribromophenol	9.3	10	93%
p-Terphenyl-d14	10	10	100%

Dilution Factor	1
% Solid	75%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1037.D
Analysis Date: 30-May-01
Date Extracted: 30-May-01
Operator: MES
Sample ID: PB-01-45 (11-16')
Lab ID: NAL00125-067
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	76 E	ug/L	5
2-Methylnaphthalene	13	ug/L	5
Acenaphthylene	ND	ug/L	5
Acenaphthene	ND	ug/L	5
Fluorene	ND	ug/L	5
Phenanthrene	ND	ug/L	5
Anthracene	ND	ug/L	5
Fluoranthene	ND	ug/L	5
Pyrene	ND	ug/L	5
Benzo (a) Anthracene	ND	ug/L	5
Chrysene	ND	ug/L	5
Benzo (b)Fluoranthene	ND	ug/L	5
Benzo (k) Fluoranthene	ND	ug/L	5
Benzo (a) Pyrene	ND	ug/L	5
Indeno (1,2,3-cd) Pyrene	ND	ug/L	5
Dibenzo (a,h) Anthracene	ND	ug/L	5
Benzo (g,h,i) Perylene	ND	ug/L	5

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.7	10	27%
Phenol-d6	1.5	10	15%
Nitrobenzene-d5	7.7	10	77%
2-Fluorobiphenyl	4.4	10	44%
2,4,6-Tribromophencl	3.5	10	35%
p-Terphenyl-d14	7.8	10	78%

Dilution Factor	1
% Solid	N/A

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #6 (Water)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0992.D
Analysis Date: 29-May-10
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-45 (10.5-11')
Lab ID: NAL00125-060
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	21000 E	ug/Kg	379
2-Methylnaphthalene	5000	ug/Kg	379
Acenaphthylene	ND	ug/Kg	379
Acenaphthene	ND	ug/Kg	379
Fluorene	ND	ug/Kg	379
Phenanthrene	ND	ug/Kg	379
Anthracene	ND	ug/Kg	379
Fluoranthene	ND	ug/Kg	379
Pyrene	ND	ug/Kg	379
Benzo (a) Anthracene	ND	ug/Kg	379
Chrysene	ND	ug/Kg	379
Benzo (b)Fluoranthene	ND	ug/Kg	379
Benzo (k) Fluoranthene	ND	ug/Kg	379
Benzo (a) Pyrene	ND	ug/Kg	379
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	379
Dibenzo (a,h) Anthracene	ND	ug/Kg	379
Benzo (g,h,i) Perylene	ND	ug/Kg	379

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.1	10	31%
Phenol-d6	5.8	10	58%
Nitrobenzene-d5	7.0	10	70%
2-Fluorobiphenyl	7.5	10	75%
2,4,6-Tribromophenol	6.9	10	69%
p-Terphenyl-d14	5.9	10	59%
Dilution Factor	1		
% Solid	87%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #4 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0967.D
Analysis Date: 25-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-45 (6-7')
Lab ID: NAL00125-059
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	3400	ug/Kg	330
2-Methylnaphthalene	1100	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.7	10	47%
Phenol-d6	2.5	10	25%
Nitrobenzene-d5	8.8	10	88%
2-Fluorobiphenyl	8.6	10	86%
2,4,6-Tribromophenol	7.7	10	77%
p-Terphenyl-d14	9.3	10	93%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0991.D
Analysis Date: 29-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-44 (12-13')
Lab ID: NAL00125-058
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	371
2-Methylnaphthalene	ND	ug/Kg	371
Acenaphthylene	ND	ug/Kg	371
Acenaphthene	ND	ug/Kg	371
Fluorene	ND	ug/Kg	371
Phenanthrene	ND	ug/Kg	371
Anthracene	ND	ug/Kg	371
Fluoranthene	ND	ug/Kg	371
Pyrene	ND	ug/Kg	371
Benzo (a) Anthracene	ND	ug/Kg	371
Chrysene	ND	ug/Kg	371
Benzo (b)Fluoranthene	ND	ug/Kg	371
Benzo (k) Fluoranthene	ND	ug/Kg	371
Benzo (a) Pyrene	ND	ug/Kg	371
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	371
Dibenzo (a,h) Anthracene	ND	ug/Kg	371
Benzo (g,h,i) Perylene	ND	ug/Kg	371

Surrogates		Spike Amount	% Rec
2-Flourophenol	6.0	10	60%
Phenol-d6	6.0	10	60%
Nitrobenzene-d5	9.9	10	99%
2-Fluorobiphenyl	9.1	10	91%
2,4,6-Tribromophenol	8.0	10	80%
p-Terphenyl-d14	10	10	100%
Dilution Factor	1		
% Solid	89%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #4 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0965.D
Analysis Date: 25-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-44 (8-9')
Lab ID: NAL00125-057
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.0	10	30%
Phenol-d6	4.3	10	43%
Nitrobenzene-d5	7.3	10	73%
2-Fluorobiphenyl	6.7	10	67%
2,4,6-Tribromophenol	5.6	10	56%
p-Terphenyl-d14	9.0	10	90%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NAL0964.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-44 (4-5')
Lab ID: NAL00125-056
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	375
2-Methylnaphthalene	ND	ug/Kg	375
Acenaphthylene	ND	ug/Kg	375
Acenaphthene	ND	ug/Kg	375
Fluorene	ND	ug/Kg	375
Phenanthrene	ND	ug/Kg	375
Anthracene	ND	ug/Kg	375
Fluoranthene	ND	ug/Kg	375
Pyrene	ND	ug/Kg	375
Benzo (a) Anthracene	ND	ug/Kg	375
Chrysene	ND	ug/Kg	375
Benzo (b)Fluoranthene	ND	ug/Kg	375
Benzo (k) Fluoranthene	ND	ug/Kg	375
Benzo (a) Pyrene	ND	ug/Kg	375
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	375
Dibenzo (a,h) Anthracene	ND	ug/Kg	375
Benzo (g,h,i) Perylene	ND	ug/Kg	375

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.5	10	25%
Phenol-d6	3.3	10	33%
Nitrobenzene-d5	5.2	10	52%
2-Fluorobiphenyl	5.4	10	54%
2,4,6-Tribromophenol	3.6	10	36%
p-Terphenyl-d14	6.4	10	64%

Dilution Factor	1
% Solid	88%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0963.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-43 (12-13')
Lab ID: NAL00125-055
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	371
2-Methylnaphthalene	ND	ug/Kg	371
Acenaphthylene	ND	ug/Kg	371
Acenaphthene	ND	ug/Kg	371
Fluorene	ND	ug/Kg	371
Phenanthrene	ND	ug/Kg	371
Anthracene	ND	ug/Kg	371
Fluoranthene	ND	ug/Kg	371
Pyrene	ND	ug/Kg	371
Benzo (a) Anthracene	ND	ug/Kg	371
Chrysene	ND	ug/Kg	371
Benzo (b)Fluoranthene	ND	ug/Kg	371
Benzo (k) Fluoranthene	ND	ug/Kg	371
Benzo (a) Pyrene	ND	ug/Kg	371
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	371
Dibenzo (a,h) Anthracene	ND	ug/Kg	371
Benzo (g,h,i) Perylene	ND	ug/Kg	371

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.8	10	38%
Phenol-d6	5.1	10	51%
Nitrobenzene-d5	8.2	10	82%
2-Fluorobiphenyl	7.6	10	76%
2,4,6-Tribromophenol	5.6	10	56%
p-Terphenyl-d14	9.7	10	97%
Dilution Factor	1		
% Solid	89%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0990.D
Analysis Date: 29-May-10
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-43 (8-9')
Lab ID: NAL00125-054
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	580	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	1000	ug/Kg	413
Pyrene	780	ug/Kg	413
Benzo (a) Anthracene	420	ug/Kg	413
Chrysene	540	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.5	10	35%
Phenol-d6	4.0	10	40%
Nitrobenzene-d5	8.9	10	89%
2-Fluorobiphenyl	6.2	10	62%
2,4,6-Tribromophenol	5.4	10	54%
p-Terphenyl-d14	7.9	10	79%
Dilution Factor	1		
% Solid	80%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #4 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0961.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-43 (4-5')
Lab ID: NAL00125-053
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.0	10	40%
Phenol-d6	5.1	10	51%
Nitrobenzene-d5	8.3	10	83%
2-Fluorobiphenyl	8.0	10	80%
2,4,6-Tribromophenol	6.0	10	60%
p-Terphenyl-d14	9.6	10	96%
Dilution Factor	1		
% Solid	100%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0960.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-42 (14-15')
Lab ID: NAL00125-052
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.0	10	30%
Phenol-d6	4.2	10	42%
Nitrobenzene-d5	6.2	10	62%
2-Fluorobiphenyl	6.3	10	63%
2,4,6-Tribromophenol	4.0	10	40%
p-Terphenyl-d14	7.0	10	70%
Dilution Factor	1		
% Solid	100%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0956.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-42 (12-13')
Lab ID: NAL00125-051
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	384
2-Methylnaphthalene	ND	ug/Kg	384
Acenaphthylene	ND	ug/Kg	384
Acenaphthene	ND	ug/Kg	384
Fluorene	ND	ug/Kg	384
Phenanthrene	ND	ug/Kg	384
Anthracene	ND	ug/Kg	384
Fluoranthene	ND	ug/Kg	384
Pyrene	ND	ug/Kg	384
Benzo (a) Anthracene	ND	ug/Kg	384
Chrysene	ND	ug/Kg	384
Benzo (b)Fluoranthene	ND	ug/Kg	384
Benzo (k) Fluoranthene	ND	ug/Kg	384
Benzo (a) Pyrene	ND	ug/Kg	384
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	384
Dibenzo (a,h) Anthracene	ND	ug/Kg	384
Benzo (g,h,i) Perylene	ND	ug/Kg	384

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.7	10	37%
Phenol-d6	4.7	10	47%
Nitrobenzene-d5	7.3	10	73%
2-Fluorobiphenyl	6.5	10	65%
2,4,6-Tribromophenol	5.8	10	58%
p-Terphenyl-d14	8.7	10	87%
Dilution Factor	1		
% Solid	86%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0955.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-42 (8-9')
Lab ID: NAL00125-050
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	367
2-Methylnaphthalene	ND	ug/Kg	367
Acenaphthylene	ND	ug/Kg	367
Acenaphthene	ND	ug/Kg	367
Fluorene	ND	ug/Kg	367
Phenanthrene	ND	ug/Kg	367
Anthracene	ND	ug/Kg	367
Fluoranthene	ND	ug/Kg	367
Pyrene	ND	ug/Kg	367
Benzo (a) Anthracene	ND	ug/Kg	367
Chrysene	ND	ug/Kg	367
Benzo (b)Fluoranthene	ND	ug/Kg	367
Benzo (k) Fluoranthene	ND	ug/Kg	367
Benzo (a) Pyrene	ND	ug/Kg	367
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	367
Dibenzo (a,h) Anthracene	ND	ug/Kg	367
Benzo (g,h,i) Perylene	ND	ug/Kg	367

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.7	10	37%
Phenol-d6	4.2	10	42%
Nitrobenzene-d5	9.7	10	97%
2-Fluorobiphenyl	7.2	10	72%
2,4,6-Tribromophenol	6.3	10	63%
p-Terphenyl-d14	8.6	10	86%

Dilution Factor	1
% Solid	90%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0954.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-42 (4-5')
Lab ID: NAL00125-049
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	359
2-Methylnaphthalene	ND	ug/Kg	359
Acenaphthylene	ND	ug/Kg	359
Acenaphthene	ND	ug/Kg	359
Fluorene	ND	ug/Kg	359
Phenanthrene	860	ug/Kg	359
Anthracene	350	ug/Kg	359
Fluoranthene	1500	ug/Kg	359
Pyrene	1100	ug/Kg	359
Benzo (a) Anthracene	600	ug/Kg	359
Chrysene	680	ug/Kg	359
Benzo (b)Fluoranthene	470	ug/Kg	359
Benzo (k) Fluoranthene	470	ug/Kg	359
Benzo (a) Pyrene	450	ug/Kg	359
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	359
Dibenzo (a,h) Anthracene	ND	ug/Kg	359
Benzo (g,h,i) Perylene	ND	ug/Kg	359

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.2	10	42%
Phenol-d6	5.5	10	55%
Nitrobenzene-d5	8.4	10	84%
2-Fluorobiphenyl	7.9	10	79%
2,4,6-Tribromophenol	5.9	10	59%
p-Terphenyl-d14	8.7	10	87%

Dilution Factor	1
% Solid	92%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0953.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-41 (12-13')
Lab ID: NAL00125-048
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	371
2-Methylnaphthalene	ND	ug/Kg	371
Acenaphthylene	ND	ug/Kg	371
Acenaphthene	ND	ug/Kg	371
Fluorene	ND	ug/Kg	371
Phenanthrene	ND	ug/Kg	371
Anthracene	ND	ug/Kg	371
Fluoranthene	ND	ug/Kg	371
Pyrene	ND	ug/Kg	371
Benzo (a) Anthracene	ND	ug/Kg	371
Chrysene	ND	ug/Kg	371
Benzo (b)Fluoranthene	ND	ug/Kg	371
Benzo (k) Fluoranthene	ND	ug/Kg	371
Benzo (a) Pyrene	ND	ug/Kg	371
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	371
Dibenzo (a,h) Anthracene	ND	ug/Kg	371
Benzo (g,h,i) Perylene	ND	ug/Kg	371

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.8	10	38%
Phenol-d6	5.1	10	51%
Nitrobenzene-d5	7.4	10	74%
2-Fluorobiphenyl	7.5	10	75%
2,4,6-Tribromophenol	6.1	10	61%
p-Terphenyl-d14	9.3	10	93%

Dilution Factor	1
% Solid	89%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ0952.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-41 (8-9')
Lab ID: NAL00125-047
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	367
2-Methylnaphthalene	ND	ug/Kg	367
Acenaphthylene	ND	ug/Kg	367
Acenaphthene	ND	ug/Kg	367
Fluorene	ND	ug/Kg	367
Phenanthrene	ND	ug/Kg	367
Anthracene	ND	ug/Kg	367
Fluoranthene	ND	ug/Kg	367
Pyrene	ND	ug/Kg	367
Benzo (a) Anthracene	ND	ug/Kg	367
Chrysene	ND	ug/Kg	367
Benzo (b)Fluoranthene	ND	ug/Kg	367
Benzo (k) Fluoranthene	ND	ug/Kg	367
Benzo (a) Pyrene	ND	ug/Kg	367
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	367
Dibenzo (a,h) Anthracene	ND	ug/Kg	367
Benzo (g,h,i) Perylene	ND	ug/Kg	367

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.8	10	38%
Phenol-d6	5.2	10	52%
Nitrobenzene-d5	7.7	10	77%
2-Fluorobiphenyl	7.8	10	78%
2,4,6-Tribromophenol	5.9	10	59%
p-Terphenyl-d14	9.1	10	91%

Dilution Factor	1
% Solid	90%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0951.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-41 (4-5')
Lab ID: NAL00125-046
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	375
2-Methylnaphthalene	ND	ug/Kg	375
Acenaphthylene	ND	ug/Kg	375
Acenaphthene	410	ug/Kg	375
Fluorene	480	ug/Kg	375
Phenanthrene	3400	ug/Kg	375
Anthracene	1300	ug/Kg	375
Fluoranthene	3600	ug/Kg	375
Pyrene	2800	ug/Kg	375
Benzo (a) Anthracene	1500	ug/Kg	375
Chrysene	1600	ug/Kg	375
Benzo (b)Fluoranthene	1200	ug/Kg	375
Benzo (k) Fluoranthene	1500	ug/Kg	375
Benzo (a) Pyrene	1200	ug/Kg	375
Indeno (1,2,3-cd) Pyrene	420	ug/Kg	375
Dibenzo (a,h) Anthracene	ND	ug/Kg	375
Benzo (g,h,i) Perylene	470	ug/Kg	375

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.3	10	33%
Phenol-d6	4.5	10	45%
Nitrobenzene-d5	6.0	10	60%
2-Fluorobiphenyl	6.8	10	68%
2,4,6-Tribromophenol	5.8	10	58%
p-Terphenyl-d14	8.5	10	85%
Dilution Factor	1		
% Solid	88%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0950.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-40 (12-13')
Lab ID: NAL00125-045
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	384
2-Methylnaphthalene	ND	ug/Kg	384
Acenaphthylene	ND	ug/Kg	384
Acenaphthene	ND	ug/Kg	384
Fluorene	ND	ug/Kg	384
Phenanthrene	ND	ug/Kg	384
Anthracene	ND	ug/Kg	384
Fluoranthene	ND	ug/Kg	384
Pyrene	ND	ug/Kg	384
Benzo (a) Anthracene	ND	ug/Kg	384
Chrysene	ND	ug/Kg	384
Benzo (b)Fluoranthene	ND	ug/Kg	384
Benzo (k) Fluoranthene	ND	ug/Kg	384
Benzo (a) Pyrene	ND	ug/Kg	384
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	384
Dibenzo (a,h) Anthracene	ND	ug/Kg	384
Benzo (g,h,i) Perylene	ND	ug/Kg	384

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.4	10	44%
Phenol-d6	5.8	10	58%
Nitrobenzene-d5	8.1	10	81%
2-Fluorobiphenyl	8.4	10	84%
2,4,6-Tribromophenol	6.0	10	60%
p-Terphenyl-d14	9.0	10	90%
Dilution Factor	1		
% Solid	86%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0949.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-40 (8-9')
Lab ID: NAL00125-044
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.5	10	45%
Phenol-d6	6.0	10	60%
Nitrobenzene-d5	8.4	10	84%
2-Fluorobiphenyl	8.5	10	85%
2,4,6-Tribromophenol	7.5	10	75%
p-Terphenyl-d14	11	10	110%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0948.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-40 (4-5')
Lab ID: NAL00125-043
Matrix: Soil
Date Sampled: 24-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	367
2-Methylnaphthalene	ND	ug/Kg	367
Acenaphthylene	ND	ug/Kg	367
Acenaphthene	ND	ug/Kg	367
Fluorene	ND	ug/Kg	367
Phenanthrene	ND	ug/Kg	367
Anthracene	ND	ug/Kg	367
Fluoranthene	ND	ug/Kg	367
Pyrene	ND	ug/Kg	367
Benzo (a) Anthracene	ND	ug/Kg	367
Chrysene	ND	ug/Kg	367
Benzo (b)Fluoranthene	ND	ug/Kg	367
Benzo (k) Fluoranthene	ND	ug/Kg	367
Benzo (a) Pyrene	ND	ug/Kg	367
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	367
Dibenzo (a,h) Anthracene	ND	ug/Kg	367
Benzo (g,h,i) Perylene	ND	ug/Kg	367

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.3	10	43%
Phenol-d6	5.7	10	57%
Nitrobenzene-d5	8.4	10	84%
2-Fluorobiphenyl	7.8	10	78%
2,4,6-Tribromophenol	6.8	10	68%
p-Terphenyl-d14	8.8	10	88%

Dilution Factor	1
% Solid	90%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0945.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-39 (12-13')
Lab ID: NAL00125-042
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	388
2-Methylnaphthalene	ND	ug/Kg	388
Acenaphthylene	ND	ug/Kg	388
Acenaphthene	ND	ug/Kg	388
Fluorene	ND	ug/Kg	388
Phenanthrene	ND	ug/Kg	388
Anthracene	ND	ug/Kg	388
Fluoranthene	ND	ug/Kg	388
Pyrene	ND	ug/Kg	388
Benzo (a) Anthracene	ND	ug/Kg	388
Chrysene	ND	ug/Kg	388
Benzo (b)Fluoranthene	ND	ug/Kg	388
Benzo (k) Fluoranthene	ND	ug/Kg	388
Benzo (a) Pyrene	ND	ug/Kg	388
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	388
Dibenzo (a,h) Anthracene	ND	ug/Kg	388
Benzo (g,h,i) Perylene	ND	ug/Kg	388

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.6	10	36%
Phenol-d6	4.6	10	46%
Nitrobenzene-d5	6.7	10	67%
2-Fluorobiphenyl	6.7	10	67%
2,4,6-Tribromophenol	4.9	10	49%
p-Terphenyl-d14	7.9	10	79%
Dilution Factor	1		
% Solid	85%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0944.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-39 (7-8')
Lab ID: NAL00125-041
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	384
2-Methylnaphthalene	ND	ug/Kg	384
Acenaphthylene	ND	ug/Kg	384
Acenaphthene	ND	ug/Kg	384
Fluorene	ND	ug/Kg	384
Phenanthrene	ND	ug/Kg	384
Anthracene	ND	ug/Kg	384
Fluoranthene	ND	ug/Kg	384
Pyrene	ND	ug/Kg	384
Benzo (a) Anthracene	ND	ug/Kg	384
Chrysene	ND	ug/Kg	384
Benzo (b)Fluoranthene	ND	ug/Kg	384
Benzo (k) Fluoranthene	ND	ug/Kg	384
Benzo (a) Pyrene	ND	ug/Kg	384
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	384
Dibenzo (a,h) Anthracene	ND	ug/Kg	384
Benzo (g,h,i) Perylene	ND	ug/Kg	384

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.3	10	43%
Phenol-d6	5.3	10	53%
Nitrobenzene-d5	7.8	10	78%
2-Fluorobiphenyl	6.8	10	68%
2,4,6-Tribromophenol	5.9	10	59%
p-Terphenyl-d14	8.5	10	85%

Dilution Factor	1
% Solid	86%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0943.D
Analysis Date: 24-May-01
Date Extracted: 24-May-01
Operator: MES
Sample ID: PB-01-39 (4-5')
Lab ID: NAL00125-040
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	363
2-Methylnaphthalene	ND	ug/Kg	363
Acenaphthylene	ND	ug/Kg	363
Acenaphthene	ND	ug/Kg	363
Fluorene	ND	ug/Kg	363
Phenanthrene	ND	ug/Kg	363
Anthracene	ND	ug/Kg	363
Fluoranthene	ND	ug/Kg	363
Pyrene	ND	ug/Kg	363
Benzo (a) Anthracene	ND	ug/Kg	363
Chrysene	ND	ug/Kg	363
Benzo (b)Fluoranthene	ND	ug/Kg	363
Benzo (k) Fluoranthene	ND	ug/Kg	363
Benzo (a) Pyrene	ND	ug/Kg	363
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	363
Dibenzo (a,h) Anthracene	ND	ug/Kg	363
Benzo (g,h,i) Perylene	ND	ug/Kg	363

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.4	10	34%
Phenol-d6	4.8	10	48%
Nitrobenzene-d5	6.0	10	60%
2-Fluorobiphenyl	5.9	10	59%
2,4,6-Tribromophenol	5.8	10	58%
p-Terphenyl-d14	8.4	10	84%

Dilution Factor	1
% Solid	91%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #3 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0935.D
Analysis Date: 24-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-38 (13-14')
Lab ID: NAL00125-039
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	363
2-Methylnaphthalene	ND	ug/Kg	363
Acenaphthylene	ND	ug/Kg	363
Acenaphthene	ND	ug/Kg	363
Fluorene	ND	ug/Kg	363
Phenanthrene	ND	ug/Kg	363
Anthracene	ND	ug/Kg	363
Fluoranthene	ND	ug/Kg	363
Pyrene	ND	ug/Kg	363
Benzo (a) Anthracene	ND	ug/Kg	363
Chrysene	ND	ug/Kg	363
Benzo (b)Fluoranthene	ND	ug/Kg	363
Benzo (k) Fluoranthene	ND	ug/Kg	363
Benzo (a) Pyrene	ND	ug/Kg	363
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	363
Dibenzo (a,h) Anthracene	ND	ug/Kg	363
Benzo (g,h,i) Perylene	ND	ug/Kg	363

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.1	10	31%
Phenol-d6	3.9	10	39%
Nitrobenzene-d5	5.6	10	56%
2-Fluorobiphenyl	6.2	10	62%
2,4,6-Tribromophenol	5.3	10	53%
p-Terphenyl-d14	8.0	10	80%
Dilution Factor	1		
% Solid	91%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

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Data file: NALJ0934.D
Analysis Date: 24-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-38 (11-12')
Lab ID: NAL00125-038
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	359
2-Methylnaphthalene	ND	ug/Kg	359
Acenaphthylene	ND	ug/Kg	359
Acenaphthene	ND	ug/Kg	359
Fluorene	ND	ug/Kg	359
Phenanthrene	ND	ug/Kg	359
Anthracene	ND	ug/Kg	359
Fluoranthene	ND	ug/Kg	359
Pyrene	ND	ug/Kg	359
Benzo (a) Anthracene	ND	ug/Kg	359
Chrysene	ND	ug/Kg	359
Benzo (b)Fluoranthene	ND	ug/Kg	359
Benzo (k) Fluoranthene	ND	ug/Kg	359
Benzo (a) Pyrene	ND	ug/Kg	359
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	359
Dibenzo (a,h) Anthracene	ND	ug/Kg	359
Benzo (g,h,i) Perylene	ND	ug/Kg	359

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.5	10	35%
Phenol-d6	4.5	10	45%
Nitrobenzene-d5	6.3	10	63%
2-Fluorobiphenyl	6.7	10	67%
2,4,6-Tribromophenol	6.2	10	62%
p-Terphenyl-d14	8.2	10	82%
Dilution Factor	1		
% Solid	92%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0933.D
Analysis Date: 24-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-38 (7-8')
Lab ID: NAL00125-037
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	700	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.6	10	46%
Phenol-d6	5.6	10	56%
Nitrobenzene-d5	8.0	10	80%
2-Fluorobiphenyl	8.9	10	89%
2,4,6-Tribromophenol	8.2	10	82%
p-Terphenyl-d14	10	10	100%
Dilution Factor	1		
% Solid	100%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ0932.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-37 (12-13')
Lab ID: NAL00125-036
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	384
2-Methylnaphthalene	ND	ug/Kg	384
Acenaphthylene	ND	ug/Kg	384
Acenaphthene	ND	ug/Kg	384
Fluorene	ND	ug/Kg	384
Phenanthrene	ND	ug/Kg	384
Anthracene	ND	ug/Kg	384
Fluoranthene	ND	ug/Kg	384
Pyrene	ND	ug/Kg	384
Benzo (a) Anthracene	ND	ug/Kg	384
Chrysene	ND	ug/Kg	384
Benzo (b)Fluoranthene	ND	ug/Kg	384
Benzo (k) Fluoranthene	ND	ug/Kg	384
Benzo (a) Pyrene	ND	ug/Kg	384
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	384
Dibenzo (a,h) Anthracene	ND	ug/Kg	384
Benzo (g,h,i) Perylene	ND	ug/Kg	384

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.1	10	41%
Phenol-d6	5.2	10	52%
Nitrobenzene-d5	7.8	10	78%
2-Fluorobiphenyl	7.9	10	79%
2,4,6-Tribromophenol	7.2	10	72%
p-Terphenyl-d14	9.4	10	94%

Dilution Factor	1
% Solid	86%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0931.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-37 (8-9')
Lab ID: NAL00125-035
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	402
2-Methylnaphthalene	ND	ug/Kg	402
Acenaphthylene	ND	ug/Kg	402
Acenaphthene	ND	ug/Kg	402
Fluorene	ND	ug/Kg	402
Phenanthrene	ND	ug/Kg	402
Anthracene	ND	ug/Kg	402
Fluoranthene	ND	ug/Kg	402
Pyrene	ND	ug/Kg	402
Benzo (a) Anthracene	ND	ug/Kg	402
Chrysene	ND	ug/Kg	402
Benzo (b)Fluoranthene	ND	ug/Kg	402
Benzo (k) Fluoranthene	ND	ug/Kg	402
Benzo (a) Pyrene	ND	ug/Kg	402
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	402
Dibenzo (a,h) Anthracene	ND	ug/Kg	402
Benzo (g,h,i) Perylene	ND	ug/Kg	402

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.7	10	37%
Phenol-d6	4.8	10	48%
Nitrobenzene-d5	6.7	10	67%
2-Fluorobiphenyl	6.8	10	68%
2,4,6-Tribromophenol	6.1	10	61%
p-Terphenyl-d14	8.2	10	82%
Dilution Factor	1		
% Solid	82%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0930.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-37 (4-5')
Lab ID: NAL00125-034
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	363
2-Methylnaphthalene	ND	ug/Kg	363
Acenaphthylene	ND	ug/Kg	363
Acenaphthene	ND	ug/Kg	363
Fluorene	ND	ug/Kg	363
Phenanthrene	ND	ug/Kg	363
Anthracene	ND	ug/Kg	363
Fluoranthene	ND	ug/Kg	363
Pyrene	ND	ug/Kg	363
Benzo (a) Anthracene	ND	ug/Kg	363
Chrysene	ND	ug/Kg	363
Benzo (b)Fluoranthene	ND	ug/Kg	363
Benzo (k) Fluoranthene	ND	ug/Kg	363
Benzo (a) Pyrene	ND	ug/Kg	363
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	363
Dibenzo (a,h) Anthracene	ND	ug/Kg	363
Benzo (g,h,i) Perylene	ND	ug/Kg	363

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.2	10	32%
Phenol-d6	3.9	10	39%
Nitrobenzene-d5	5.7	10	57%
2-Fluorobiphenyl	5.2	10	52%
2,4,6-Tribromophenol	5.6	10	56%
p-Terphenyl-d14	8.0	10	80%
Dilution Factor	1		
% Solid	91%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0929.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-36 (12-13')
Lab ID: NAL00125-033
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	359
2-Methylnaphthalene	ND	ug/Kg	359
Acenaphthylene	ND	ug/Kg	359
Acenaphthene	ND	ug/Kg	359
Fluorene	ND	ug/Kg	359
Phenanthrene	ND	ug/Kg	359
Anthracene	ND	ug/Kg	359
Fluoranthene	ND	ug/Kg	359
Pyrene	ND	ug/Kg	359
Benzo (a) Anthracene	ND	ug/Kg	359
Chrysene	ND	ug/Kg	359
Benzo (b)Fluoranthene	ND	ug/Kg	359
Benzo (k) Fluoranthene	ND	ug/Kg	359
Benzo (a) Pyrene	ND	ug/Kg	359
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	359
Dibenzo (a,h) Anthracene	ND	ug/Kg	359
Benzo (g,h,i) Perylene	ND	ug/Kg	359

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.8	10	38%
Phenol-d6	4.7	10	47%
Nitrobenzene-d5	6.4	10	64%
2-Fluorobiphenyl	6.9	10	69%
2,4,6-Tribromophenol	6.2	10	62%
p-Terphenyl-d14	8.6	10	86%
Dilution Factor	1		
% Solid	92%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0928.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-36 (8-9')
Lab ID: NAL00125-032
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.4	10	34%
Phenol-d6	4.4	10	44%
Nitrobenzene-d5	6.1	10	61%
2-Fluorobiphenyl	5.9	10	59%
2,4,6-Tribromophenol	6.1	10	61%
p-Terphenyl-d14	9.1	10	91%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0927.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-36 (4-5')
Lab ID: NAL00125-031
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	359
2-Methylnaphthalene	ND	ug/Kg	359
Acenaphthylene	ND	ug/Kg	359
Acenaphthene	ND	ug/Kg	359
Fluorene	ND	ug/Kg	359
Phenanthrene	ND	ug/Kg	359
Anthracene	ND	ug/Kg	359
Fluoranthene	ND	ug/Kg	359
Pyrene	ND	ug/Kg	359
Benzo (a) Anthracene	ND	ug/Kg	359
Chrysene	ND	ug/Kg	359
Benzo (b)Fluoranthene	ND	ug/Kg	359
Benzo (k) Fluoranthene	ND	ug/Kg	359
Benzo (a) Pyrene	ND	ug/Kg	359
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	359
Dibenzo (a,h) Anthracene	ND	ug/Kg	359
Benzo (g,h,i) Perylene	ND	ug/Kg	359

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.1	10	31%
Phenol-d6	3.9	10	39%
Nitrobenzene-d5	4.8	10	48%
2-Fluorobiphenyl	5.4	10	54%
2,4,6-Tribromophenol	5.1	10	51%
p-Terphenyl-d14	7.2	10	72%

Dilution Factor	1
% Solid	92%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1022.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-35 (20-21')
Lab ID: NAL00125-096
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	363
2-Methylnaphthalene	ND	ug/Kg	363
Acenaphthylene	ND	ug/Kg	363
Acenaphthene	ND	ug/Kg	363
Fluorene	ND	ug/Kg	363
Phenanthrene	ND	ug/Kg	363
Anthracene	ND	ug/Kg	363
Fluoranthene	ND	ug/Kg	363
Pyrene	ND	ug/Kg	363
Benzo (a) Anthracene	ND	ug/Kg	363
Chrysene	ND	ug/Kg	363
Benzo (b)Fluoranthene	ND	ug/Kg	363
Benzo (k) Fluoranthene	ND	ug/Kg	363
Benzo (a) Pyrene	ND	ug/Kg	363
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	363
Dibenzo (a,h) Anthracene	ND	ug/Kg	363
Benzo (g,h,i) Perylene	ND	ug/Kg	363

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.9	10	39%
Phenol-d6	4.5	10	45%
Nitrobenzene-d5	6.8	10	68%
2-Fluorobiphenyl	5.0	10	50%
2,4,6-Tribromophenol	4.1	10	41%
p-Terphenyl-d14	6.5	10	65%

Dilution Factor	1
% Solid	91%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1023.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-35 (16-17')
Lab ID: NAL00125-097
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	6.4	10	64%
Phenol-d6	6.9	10	69%
Nitrobenzene-d5	11	10	110%
2-Fluorobiphenyl	7.5	10	75%
2,4,6-Tribromophenol	5.7	10	57%
p-Terphenyl-d14	9.0	10	90%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0926.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-35 (11-16')
Lab ID: NAL00125-030
Matrix: Water
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/L	5
2-Methylnaphthalene	ND	ug/L	5
Acenaphthylene	ND	ug/L	5
Acenaphthene	ND	ug/L	5
Fluorene	ND	ug/L	5
Phenanthrene	ND	ug/L	5
Anthracene	ND	ug/L	5
Fluoranthene	ND	ug/L	5
Pyrene	ND	ug/L	5
Benzo (a) Anthracene	ND	ug/L	5
Chrysene	ND	ug/L	5
Benzo (b)Fluoranthene	ND	ug/L	5
Benzo (k) Fluoranthene	ND	ug/L	5
Benzo (a) Pyrene	ND	ug/L	5
Indeno (1,2,3-cd) Pyrene	ND	ug/L	5
Dibenzo (a,h) Anthracene	ND	ug/L	5
Benzo (g,h,i) Perylene	ND	ug/L	5

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.1	10	21%
Phenol-d6	1.4	10	14%
Nitrobenzene-d5	4.2	10	42%
2-Fluorobiphenyl	4.4	10	44%
2,4,6-Tribromophenol	4.9	10	49%
p-Terphenyl-d14	9.4	10	94%

Dilution Factor	1
% Solid	N/A

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0917.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-34 (25-26)
Lab ID: NAL00125-026
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.2	10	42%
Phenol-d6	4.7	10	47%
Nitrobenzene-d5	6.3	10	63%
2-Fluorobiphenyl	6.2	10	62%
2,4,6-Tribromophenol	5.1	10	51%
p-Terphenyl-d14	7.2	10	72%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0918.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-34 (21-22')
Lab ID: NAL00125-027
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	363
2-Methylnaphthalene	ND	ug/Kg	363
Acenaphthylene	ND	ug/Kg	363
Acenaphthene	ND	ug/Kg	363
Fluorene	ND	ug/Kg	363
Phenanthrene	ND	ug/Kg	363
Anthracene	ND	ug/Kg	363
Fluoranthene	ND	ug/Kg	363
Pyrene	ND	ug/Kg	363
Benzo (a) Anthracene	ND	ug/Kg	363
Chrysene	ND	ug/Kg	363
Benzo (b)Fluoranthene	ND	ug/Kg	363
Benzo (k) Fluoranthene	ND	ug/Kg	363
Benzo (a) Pyrene	ND	ug/Kg	363
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	363
Dibenzo (a,h) Anthracene	ND	ug/Kg	363
Benzo (g,h,i) Perylene	ND	ug/Kg	363

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.4	10	44%
Phenol-d6	5.0	10	50%
Nitrobenzene-d5	6.6	10	66%
2-Fluorobiphenyl	6.8	10	68%
2,4,6-Tribromophenol	5.6	10	56%
p-Terphenyl-d14	8.1	10	81%

Dilution Factor	1
% Solid	91%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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GeoTrans, Inc.
710 Avis Drive
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0972.D
Analysis Date: 25-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-34 (11.5-16.5')
Lab ID: NAL00125-028 (INST DUP)
Matrix: Water
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	7.8	ug/L	5
2-Methylnaphthalene	ND	ug/L	5
Acenaphthylene	ND	ug/L	5
Acenaphthene	ND	ug/L	5
Fluorene	ND	ug/L	5
Phenanthrene	ND	ug/L	5
Anthracene	ND	ug/L	5
Fluoranthene	ND	ug/L	5
Pyrene	ND	ug/L	5
Benzo (a) Anthracene	ND	ug/L	5
Chrysene	ND	ug/L	5
Benzo (b)Fluoranthene	ND	ug/L	5
Benzo (k) Fluoranthene	ND	ug/L	5
Benzo (a) Pyrene	ND	ug/L	5
Indeno (1,2,3-cd) Pyrene	ND	ug/L	5
Dibenzo (a,h) Anthracene	ND	ug/L	5
Benzo (g,h,i) Perylene	ND	ug/L	5

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.2	10	32%
Phenol-d6	1.1	10	11%
Nitrobenzene-d5	3.5	10	35%
2-Fluorobiphenyl	2.2	10	22%
2,4,6-Tribromophenol	1.2	10	12%
p-Terphenyl-d14	5.7	10	57%
Dilution Factor	1		
% Solid	N/A		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #4 (Soil)

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GeoTrans, Inc.
710 Avis Drive
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0924.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-34 (11.5-16.5')
Lab ID: NAL00125-028
Matrix: Water
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	7.7	ug/L	5
2-Methylnaphthalene	ND	ug/L	5
Acenaphthylene	ND	ug/L	5
Acenaphthene	ND	ug/L	5
Fluorene	ND	ug/L	5
Phenanthrene	ND	ug/L	5
Anthracene	ND	ug/L	5
Fluoranthene	ND	ug/L	5
Pyrene	ND	ug/L	5
Benzo (a) Anthracene	ND	ug/L	5
Chrysene	ND	ug/L	5
Benzo (b)Fluoranthene	ND	ug/L	5
Benzo (k) Fluoranthene	ND	ug/L	5
Benzo (a) Pyrene	ND	ug/L	5
Indeno (1,2,3-cd) Pyrene	ND	ug/L	5
Dibenzo (a,h) Anthracene	ND	ug/L	5
Benzo (g,h,i) Perylene	ND	ug/L	5

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.3	10	23%
Phenol-d6	1.1	10	11%
Nitrobenzene-d5	3.6	10	36%
2-Fluorobiphenyl	2.0	10	20%
2,4,6-Tribromophenol	1.4	10	14%
p-Terphenyl-d14	5.6	10	56%

Dilution Factor	1
% Solid	N/A

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0920.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-34 (8-9')
Lab ID: NAL00125-025
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	7333
2-Methylnaphthalene	ND	ug/Kg	7333
Acenaphthylene	ND	ug/Kg	7333
Acenaphthene	9200	ug/Kg	7333
Fluorene	7600	ug/Kg	7333
Phenanthrene	41000	ug/Kg	7333
Anthracene	15000	ug/Kg	7333
Fluoranthene	39000	ug/Kg	7333
Pyrene	33000	ug/Kg	7333
Benzo (a) Anthracene	16000	ug/Kg	7333
Chrysene	18000	ug/Kg	7333
Benzo (b)Fluoranthene	14000	ug/Kg	7333
Benzo (k) Fluoranthene	17000	ug/Kg	7333
Benzo (a) Pyrene	14000	ug/Kg	7333
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	7333
Dibenzo (a,h) Anthracene	ND	ug/Kg	7333
Benzo (g,h,i) Perylene	ND	ug/Kg	7333

Surrogates		Spike Amount	% Rec
2-Flourophenol	6.6	10	66%
Phenol-d6	4.4	10	44%
Nitrobenzene-d5	4.8	10	48%
2-Fluorobiphenyl	6.2	10	62%
2,4,6-Tribromophenol	4.2	10	42%
p-Terphenyl-d14	7.4	10	74%

Dilution Factor	20
% Solid	90%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0925.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-33 (11-16')
Lab ID: NAL00125-029
Matrix: Water
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	53 E	ug/L	5
2-Methylnaphthalene	ND	ug/L	5
Acenaphthylene	ND	ug/L	5
Acenaphthene	ND	ug/L	5
Fluorene	ND	ug/L	5
Phenanthrene	ND	ug/L	5
Anthracene	ND	ug/L	5
Fluoranthene	ND	ug/L	5
Pyrene	ND	ug/L	5
Benzo (a) Anthracene	ND	ug/L	5
Chrysene	ND	ug/L	5
Benzo (b)Fluoranthene	ND	ug/L	5
Benzo (k) Fluoranthene	ND	ug/L	5
Benzo (a) Pyrene	ND	ug/L	5
Indeno (1,2,3-cd) Pyrene	ND	ug/L	5
Dibenzo (a,h) Anthracene	ND	ug/L	5
Benzo (g,h,i) Perylene	ND	ug/L	5

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.1	10	21%
Phenol-d6	1.2	10	12%
Nitrobenzene-d5	5.8	10	58%
2-Fluorobiphenyl	2.5	10	25%
2,4,6-Tribromophenol	5.3	10	53%
p-Terphenyl-d14	8.0	10	80%

Dilution Factor	1
% Solid	N/A

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

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710 Avis Drive
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0912.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-32 (14-15')
Lab ID: NAL00125-021
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	360
2-Methylnaphthalene	ND	ug/Kg	360
Acenaphthylene	ND	ug/Kg	360
Acenaphthene	ND	ug/Kg	360
Fluorene	ND	ug/Kg	360
Phenanthrene	ND	ug/Kg	360
Anthracene	ND	ug/Kg	360
Fluoranthene	ND	ug/Kg	360
Pyrene	ND	ug/Kg	360
Benzo (a) Anthracene	ND	ug/Kg	360
Chrysene	ND	ug/Kg	360
Benzo (b)Fluoranthene	ND	ug/Kg	360
Benzo (k) Fluoranthene	ND	ug/Kg	360
Benzo (a) Pyrene	ND	ug/Kg	360
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	360
Dibenzo (a,h) Anthracene	ND	ug/Kg	360
Benzo (g,h,i) Perylene	ND	ug/Kg	360

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.0	10	50%
Phenol-d6	5.5	10	55%
Nitrobenzene-d5	7.2	10	72%
2-Fluorobiphenyl	6.5	10	65%
2,4,6-Tribromophenol	5.6	10	56%
p-Terphenyl-d14	8.4	10	84%

Dilution Factor	1
% Solid	92%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0913.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-32 (12-13')
Lab ID: NAL00125-022
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	363
2-Methylnaphthalene	ND	ug/Kg	363
Acenaphthylene	ND	ug/Kg	363
Acenaphthene	ND	ug/Kg	363
Fluorene	ND	ug/Kg	363
Phenanthrene	ND	ug/Kg	363
Anthracene	ND	ug/Kg	363
Fluoranthene	ND	ug/Kg	363
Pyrene	ND	ug/Kg	363
Benzo (a) Anthracene	ND	ug/Kg	363
Chrysene	ND	ug/Kg	363
Benzo (b)Fluoranthene	ND	ug/Kg	363
Benzo (k) Fluoranthene	ND	ug/Kg	363
Benzo (a) Pyrene	ND	ug/Kg	363
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	363
Dibenzo (a,h) Anthracene	ND	ug/Kg	363
Benzo (g,h,i) Perylene	ND	ug/Kg	363

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.8	10	48%
Phenol-d6	5.4	10	54%
Nitrobenzene-d5	7.5	10	75%
2-Fluorobiphenyl	7.3	10	73%
2,4,6-Tribromophenol	6.0	10	60%
p-Terphenyl-d14	8.3	10	83%
Dilution Factor	1		
% Solid	91%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0915.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-32 (8-9')
Lab ID: NAL00125-024
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	23000E	ug/Kg	355
2-Methylnaphthalene	5700E	ug/Kg	355
Acenaphthylene	420	ug/Kg	355
Acenaphthene	ND	ug/Kg	355
Fluorene	550	ug/Kg	355
Phenanthrene	2200	ug/Kg	355
Anthracene	520	ug/Kg	355
Fluoranthene	950	ug/Kg	355
Pyrene	920	ug/Kg	355
Benzo (a) Anthracene	ND	ug/Kg	355
Chrysene	ND	ug/Kg	355
Benzo (b)Fluoranthene	ND	ug/Kg	355
Benzo (k) Fluoranthene	ND	ug/Kg	355
Benzo (a) Pyrene	ND	ug/Kg	355
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	355
Dibenzo (a,h) Anthracene	ND	ug/Kg	355
Benzo (g,h,i) Perylene	ND	ug/Kg	355

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.4	10	34%
Phenol-d6	5.8	10	58%
Nitrobenzene-d5	5.9	10	59%
2-Fluorobiphenyl	5.2	10	52%
2,4,6-Tribromophenol	2.4	10	24%
p-Terphenyl-d14	3.1	10	31%
Dilution Factor	1		
% Solid	93%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0919.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-32 (8-9')
Lab ID: NAL00125-024
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	62000	ug/Kg	7104
2-Methylnaphthalene	8600	ug/Kg	7104
Acenaphthylene	ND	ug/Kg	7104
Acenaphthene	ND	ug/Kg	7104
Fluorene	ND	ug/Kg	7104
Phenanthrene	ND	ug/Kg	7104
Anthracene	ND	ug/Kg	7104
Fluoranthene	ND	ug/Kg	7104
Pyrene	ND	ug/Kg	7104
Benzo (a) Anthracene	ND	ug/Kg	7104
Chrysene	ND	ug/Kg	7104
Benzo (b)Fluoranthene	ND	ug/Kg	7104
Benzo (k) Fluoranthene	ND	ug/Kg	7104
Benzo (a) Pyrene	ND	ug/Kg	7104
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	7104
Dibenzo (a,h) Anthracene	ND	ug/Kg	7104
Benzo (g,h,i) Perylene	ND	ug/Kg	7104

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.4	10	34%
Phenol-d6	6.8	10	68%
Nitrobenzene-d5	4.6	10	46%
2-Fluorobiphenyl	4.6	10	46%
2,4,6-Tribromophenol	3.8	10	38%
p-Terphenyl-d14	5.0	10	50%

Dilution Factor	20
% Solid	93%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0914.D
Analysis Date: 23-May-01
Date Extracted: 23-May-01
Operator: MES
Sample ID: PB-01-32 (6-7')
Lab ID: NAL00125-023
Matrix: Soil
Date Sampled: 23-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	34000	ug/Kg	3518
2-Methylnaphthalene	5800	ug/Kg	3518
Acenaphthylene	ND	ug/Kg	3518
Acenaphthene	ND	ug/Kg	3518
Fluorene	ND	ug/Kg	3518
Phenanthrene	ND	ug/Kg	3518
Anthracene	ND	ug/Kg	3518
Fluoranthene	ND	ug/Kg	3518
Pyrene	ND	ug/Kg	3518
Benzo (a) Anthracene	ND	ug/Kg	3518
Chrysene	ND	ug/Kg	3518
Benzo (b)Fluoranthene	ND	ug/Kg	3518
Benzo (k) Fluoranthene	ND	ug/Kg	3518
Benzo (a) Pyrene	ND	ug/Kg	3518
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	3518
Dibenzo (a,h) Anthracene	ND	ug/Kg	3518
Benzo (g,h,i) Perylene	ND	ug/Kg	3518

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.8	10	28%
Phenol-d6	8.7	10	87%
Nitrobenzene-d5	6.2	10	62%
2-Fluorobiphenyl	4.0	10	40%
2,4,6-Tribromophenol	2.9	10	29%
p-Terphenyl-d14	4.4	10	44%
Dilution Factor	10		
% Solid	94%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #2 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0906.D
Analysis Date: 23-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-31 (10-11')
Lab ID: NAL00125-020
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	418
2-Methylnaphthalene	ND	ug/Kg	418
Acenaphthylene	ND	ug/Kg	418
Acenaphthene	ND	ug/Kg	418
Fluorene	ND	ug/Kg	418
Phenanthrene	ND	ug/Kg	418
Anthracene	ND	ug/Kg	418
Fluoranthene	ND	ug/Kg	418
Pyrene	ND	ug/Kg	418
Benzo (a) Anthracene	ND	ug/Kg	418
Chrysene	ND	ug/Kg	418
Benzo (b)Fluoranthene	ND	ug/Kg	418
Benzo (k) Fluoranthene	ND	ug/Kg	418
Benzo (a) Pyrene	ND	ug/Kg	418
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	418
Dibenzo (a,h) Anthracene	ND	ug/Kg	418
Benzo (g,h,i) Perylene	ND	ug/Kg	418

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.9	10	39%
Phenol-d6	4.5	10	45%
Nitrobenzene-d5	5.2	10	52%
2-Fluorobiphenyl	5.2	10	52%
2,4,6-Tribromophenol	4.1	10	41%
p-Terphenyl-d14	6.8	10	68%

Dilution Factor	1
% Solid	79%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0905.D
Analysis Date: 23-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-31 (8-9')
Lab ID: NAL00125-019
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	550
2-Methylnaphthalene	ND	ug/Kg	550
Acenaphthylene	ND	ug/Kg	550
Acenaphthene	ND	ug/Kg	550
Fluorene	ND	ug/Kg	550
Phenanthrene	ND	ug/Kg	550
Anthracene	ND	ug/Kg	550
Fluoranthene	ND	ug/Kg	550
Pyrene	ND	ug/Kg	550
Benzo (a) Anthracene	ND	ug/Kg	550
Chrysene	ND	ug/Kg	550
Benzo (b)Fluoranthene	ND	ug/Kg	550
Benzo (k) Fluoranthene	ND	ug/Kg	550
Benzo (a) Pyrene	ND	ug/Kg	550
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	550
Dibenzo (a,h) Anthracene	ND	ug/Kg	550
Benzo (g,h,i) Perylene	ND	ug/Kg	550

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.0	10	40%
Phenol-d6	4.6	10	46%
Nitrobenzene-d5	5.9	10	59%
2-Fluorobiphenyl	5.8	10	58%
2,4,6-Tribromophenol	5.4	10	54%
p-Terphenyl-d14	7.6	10	76%
Dilution Factor	1		
% Solid	60%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0904.D
Analysis Date: 23-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-31 (4-5')
Lab ID: NAL00125-018
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	570	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	940	ug/Kg	413
Pyrene	700	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	420	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec.
2-Flourophenol	3.6	10	36%
Phenol-d6	4.3	10	43%
Nitrobenzene-d5	5.0	10	50%
2-Fluorobiphenyl	5.0	10	50%
2,4,6-Tribromophenol	4.4	10	44%
p-Terphenyl-d14	6.5	10	65%

Dilution Factor	1
% Solid	80%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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ATTN: Mr. Craig Savage

Data file: NALJ0899.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-29 (14-15')
Lab ID: NAL00125-013
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.3	10	53%
Phenol-d6	5.7	10	57%
Nitrobenzene-d5	7.1	10	71%
2-Fluorobiphenyl	7.3	10	73%
2,4,6-Tribromophenol	5.5	10	55%
p-Terphenyl-d14	9.0	10	90%

Dilution Factor	1
% Solid	80%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0898.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-29 (12-13')
Lab ID: NAL00125-012
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.4	10	44%
Phenol-d6	4.5	10	45%
Nitrobenzene-d5	5.1	10	51%
2-Fluorobiphenyl	5.2	10	52%
2,4,6-Tribromophenol	4.7	10	47%
p-Terphenyl-d14	6.9	10	69%

Dilution Factor	1
% Solid	80%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0894.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-29 (6-7')
Lab ID: NAL00125-011
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.0	10	30%
Phenol-d6	2.4	10	24%
Nitrobenzene-d5	2.6	10	26%
2-Fluorobiphenyl	3.8	10	38%
2,4,6-Tribromophenol	3.5	10	35%
p-Terphenyl-d14	4.4	10	44%

Dilution Factor	1
% Solid	80%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ0902.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-28 (15-16')
Lab ID: NAL00125-016
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.1	10	51%
Phenol-d6	5.4	10	54%
Nitrobenzene-d5	7.2	10	72%
2-Fluorobiphenyl	6.6	10	66%
2,4,6-Tribromophenol	5.9	10	59%
p-Terphenyl-d14	8.3	10	83%

Dilution Factor	1
% Solid	80%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0903.D
Analysis Date: 23-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-28 (12-13')
Lab ID: NAL00125-017
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.3	10	53%
Phenol-d6	5.7	10	57%
Nitrobenzene-d5	7.1	10	71%
2-Fluorobiphenyl	7.1	10	71%
2,4,6-Tribromophenol	6.2	10	62%
p-Terphenyl-d14	8.6	10	86%
Dilution Factor	1		
% Solid	80%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0901.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-28 (7-8')
Lab ID: NAL00125-015
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	367
2-Methylnaphthalene	ND	ug/Kg	367
Acenaphthylene	ND	ug/Kg	367
Acenaphthene	ND	ug/Kg	367
Fluorene	ND	ug/Kg	367
Phenanthrene	ND	ug/Kg	367
Anthracene	ND	ug/Kg	367
Fluoranthene	ND	ug/Kg	367
Pyrene	ND	ug/Kg	367
Benzo (a) Anthracene	ND	ug/Kg	367
Chrysene	ND	ug/Kg	367
Benzo (b)Fluoranthene	ND	ug/Kg	367
Benzo (k) Fluoranthene	ND	ug/Kg	367
Benzo (a) Pyrene	ND	ug/Kg	367
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	367
Dibenzo (a,h) Anthracene	ND	ug/Kg	367
Benzo (g,h,i) Perylene	ND	ug/Kg	367

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.3	10	43%
Phenol-d6	4.6	10	46%
Nitrobenzene-d5	6	10	60%
2-Fluorobiphenyl	5.8	10	58%
2,4,6-Tribromophenol	5.4	10	54%
p-Terphenyl-d14	7.4	10	74%

Dilution Factor	1
% Solid	90%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ0900.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-28 (4-5')
Lab ID: NAL00125-014
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	2900	ug/Kg	413
Anthracene	1100	ug/Kg	413
Fluoranthene	3300	ug/Kg	413
Pyrene	2500	ug/Kg	413
Benzo (a) Anthracene	1300	ug/Kg	413
Chrysene	1400	ug/Kg	413
Benzo (b)Fluoranthene	1200	ug/Kg	413
Benzo (k) Fluoranthene	1300	ug/Kg	413
Benzo (a) Pyrene	1100	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.3	10	43%
Phenol-d6	4.8	10	48%
Nitrobenzene-d5	6.1	10	61%
2-Fluorobiphenyl	5.4	10	54%
2,4,6-Tribromophenol	5.1	10	51%
p-Terphenyl-d14	7.1	10	71%
Dilution Factor	1		
% Solid	80%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ0893.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-27 (15-16')
Lab ID: NAL00125-010
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	471
2-Methylnaphthalene	ND	ug/Kg	471
Acenaphthylene	ND	ug/Kg	471
Acenaphthene	ND	ug/Kg	471
Fluorene	ND	ug/Kg	471
Phenanthrene	ND	ug/Kg	471
Anthracene	ND	ug/Kg	471
Fluoranthene	ND	ug/Kg	471
Pyrene	ND	ug/Kg	471
Benzo (a) Anthracene	ND	ug/Kg	471
Chrysene	ND	ug/Kg	471
Benzo (b)Fluoranthene	ND	ug/Kg	471
Benzo (k) Fluoranthene	ND	ug/Kg	471
Benzo (a) Pyrene	ND	ug/Kg	471
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	471
Dibenzo (a,h) Anthracene	ND	ug/Kg	471
Benzo (g,h,i) Perylene	ND	ug/Kg	471

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.3	10	43%
Phenol-d6	4.6	10	46%
Nitrobenzene-d5	5.6	10	56%
2-Fluorobiphenyl	5.6	10	56%
2,4,6-Tribromophenol	5.5	10	55%
p-Terphenyl-d14	7.9	10	79%

Dilution Factor	1
% Solid	70%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0892.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-27 (13-14')
Lab ID: NAL00125-009
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.0	10	40%
Phenol-d6	4.2	10	42%
Nitrobenzene-d5	5.2	10	52%
2-Fluorobiphenyl	5.6	10	56%
2,4,6-Tribromophenol	4.8	10	48%
p-Terphenyl-d14	6.7	10	67%
Dilution Factor	1		
% Solid	80%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0891.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-27 (7-8')
Lab ID: NAL00125-008
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.8	10	48%
Phenol-d6	5.5	10	55%
Nitrobenzene-d5	5.6	10	56%
2-Fluorobiphenyl	5.5	10	55%
2,4,6-Tribromophenol	5.6	10	56%
p-Terphenyl-d14	7.2	10	72%
Dilution Factor	1		
% Solid	80%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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Data file: NALJ0890.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-27 (4-5')
Lab ID: NAL00125-007
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	471
2-Methylnaphthalene	ND	ug/Kg	471
Acenaphthylene	ND	ug/Kg	471
Acenaphthene	ND	ug/Kg	471
Fluorene	ND	ug/Kg	471
Phenanthrene	ND	ug/Kg	471
Anthracene	ND	ug/Kg	471
Fluoranthene	ND	ug/Kg	471
Pyrene	ND	ug/Kg	471
Benzo (a) Anthracene	ND	ug/Kg	471
Chrysene	ND	ug/Kg	471
Benzo (b)Fluoranthene	ND	ug/Kg	471
Benzo (k) Fluoranthene	ND	ug/Kg	471
Benzo (a) Pyrene	ND	ug/Kg	471
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	471
Dibenzo (a,h) Anthracene	ND	ug/Kg	471
Benzo (g,h,i) Perylene	ND	ug/Kg	471

Surrogates		Spike Amount	% Rec
2-Flourophenol	6.2	10	62%
Phenol-d6	2.5	10	25%
Nitrobenzene-d5	3.9	10	39%
2-Fluorobiphenyl	7.4	10	74%
2,4,6-Tribromophenol	6.8	10	68%
p-Terphenyl-d14	8.0	10	80%
Dilution Factor	1		
% Solid	70%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1021.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-25 (18-19')
Lab ID: NAL00125-095
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	359
2-Methylnaphthalene	ND	ug/Kg	359
Acenaphthylene	ND	ug/Kg	359
Acenaphthene	ND	ug/Kg	359
Fluorene	ND	ug/Kg	359
Phenanthrene	ND	ug/Kg	359
Anthracene	ND	ug/Kg	359
Fluoranthene	ND	ug/Kg	359
Pyrene	ND	ug/Kg	359
Benzo (a) Anthracene	ND	ug/Kg	359
Chrysene	ND	ug/Kg	359
Benzo (b)Fluoranthene	ND	ug/Kg	359
Benzo (k) Fluoranthene	ND	ug/Kg	359
Benzo (a) Pyrene	ND	ug/Kg	359
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	359
Dibenzo (a,h) Anthracene	ND	ug/Kg	359
Benzo (g,h,i) Perylene	ND	ug/Kg	359

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.6	10	56%
Phenol-d6	6.6	10	66%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	6.7	10	67%
2,4,6-Tribromophenol	5.3	10	53%
p-Terphenyl-d14	8.2	10	82%

Dilution Factor	1
% Solid	92%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ0889.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-25 (15-16')
Lab ID: NAL00125-006
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	471
2-Methylnaphthalene	ND	ug/Kg	471
Acenaphthylene	ND	ug/Kg	471
Acenaphthene	ND	ug/Kg	471
Fluorene	ND	ug/Kg	471
Phenanthrene	ND	ug/Kg	471
Anthracene	ND	ug/Kg	471
Fluoranthene	ND	ug/Kg	471
Pyrene	ND	ug/Kg	471
Benzo (a) Anthracene	ND	ug/Kg	471
Chrysene	ND	ug/Kg	471
Benzo (b)Fluoranthene	ND	ug/Kg	471
Benzo (k) Fluoranthene	ND	ug/Kg	471
Benzo (a) Pyrene	ND	ug/Kg	471
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	471
Dibenzo (a,h) Anthracene	ND	ug/Kg	471
Benzo (g,h,i) Perylene	ND	ug/Kg	471

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.5	10	35%
Phenol-d6	4.4	10	44%
Nitrobenzene-d5	5.5	10	55%
2-Fluorobiphenyl	5.8	10	58%
2,4,6-Tribromophenol	4.7	10	47%
p-Terphenyl-d14	6.3	10	63%
Dilution Factor	1		
% Solid	70%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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710 Avis Drive
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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1020.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01-25 (14-15')
Lab ID: NAL00125-094
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	359
2-Methylnaphthalene	ND	ug/Kg	359
Acenaphthylene	ND	ug/Kg	359
Acenaphthene	ND	ug/Kg	359
Fluorene	ND	ug/Kg	359
Phenanthrene	ND	ug/Kg	359
Anthracene	ND	ug/Kg	359
Fluoranthene	ND	ug/Kg	359
Pyrene	ND	ug/Kg	359
Benzo (a) Anthracene	ND	ug/Kg	359
Chrysene	ND	ug/Kg	359
Benzo (b)Fluoranthene	ND	ug/Kg	359
Benzo (k) Fluoranthene	ND	ug/Kg	359
Benzo (a) Pyrene	ND	ug/Kg	359
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	359
Dibenzo (a,h) Anthracene	ND	ug/Kg	359
Benzo (g,h,i) Perylene	ND	ug/Kg	359

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.9	10	59%
Phenol-d6	7.1	10	71%
Nitrobenzene-d5	9.9	10	99%
2-Fluorobiphenyl	7.1	10	71%
2,4,6-Tribromophenol	4.8	10	48%
p-Terphenyl-d14	8.3	10	83%

Dilution Factor	1
% Solid	92%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0888.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-25 (12-13')
Lab ID: NAL00125-005
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.7	10	47%
Phenol-d6	4.3	10	43%
Nitrobenzene-d5	5.7	10	57%
2-Fluorobiphenyl	5.9	10	59%
2,4,6-Tribromophenol	5.4	10	54%
p-Terphenyl-d14	7.9	10	79%

Dilution Factor	1
% Solid	80%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0884.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-24 (4-5')
Lab ID: NAL00125-004
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.4	10	54%
Phenol-d6	4.5	10	45%
Nitrobenzene-d5	4.4	10	44%
2-Fluorobiphenyl	6.5	10	65%
2,4,6-Tribromophenol	5.8	10	58%
p-Terphenyl-d14	7.5	10	75%

Dilution Factor	1
% Solid	80%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ0887.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-23 (12-13')
Lab ID: NAL00125-003
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	413
2-Methylnaphthalene	ND	ug/Kg	413
Acenaphthylene	ND	ug/Kg	413
Acenaphthene	ND	ug/Kg	413
Fluorene	ND	ug/Kg	413
Phenanthrene	ND	ug/Kg	413
Anthracene	ND	ug/Kg	413
Fluoranthene	ND	ug/Kg	413
Pyrene	ND	ug/Kg	413
Benzo (a) Anthracene	ND	ug/Kg	413
Chrysene	ND	ug/Kg	413
Benzo (b)Fluoranthene	ND	ug/Kg	413
Benzo (k) Fluoranthene	ND	ug/Kg	413
Benzo (a) Pyrene	ND	ug/Kg	413
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	413
Dibenzo (a,h) Anthracene	ND	ug/Kg	413
Benzo (g,h,i) Perylene	ND	ug/Kg	413

Surrogates		Spike Amount	% Rec
2-Flourophenol	2.8	10	28%
Phenol-d6	4.3	10	43%
Nitrobenzene-d5	3.7	10	37%
2-Fluorobiphenyl	4.8	10	48%
2,4,6-Tribromophenol	4.4	10	44%
p-Terphenyl-d14	6.8	10	68%
Dilution Factor	1		
% Solid	80%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ0886.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-23 (8-9')
Lab ID: NAL00125-002
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	471
2-Methylnaphthalene	ND	ug/Kg	471
Acenaphthylene	ND	ug/Kg	471
Acenaphthene	ND	ug/Kg	471
Fluorene	ND	ug/Kg	471
Phenanthrene	ND	ug/Kg	471
Anthracene	ND	ug/Kg	471
Fluoranthene	ND	ug/Kg	471
Pyrene	ND	ug/Kg	471
Benzo (a) Anthracene	ND	ug/Kg	471
Chrysene	ND	ug/Kg	471
Benzo (b)Fluoranthene	ND	ug/Kg	471
Benzo (k) Fluoranthene	ND	ug/Kg	471
Benzo (a) Pyrene	ND	ug/Kg	471
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	471
Dibenzo (a,h) Anthracene	ND	ug/Kg	471
Benzo (g,h,i) Perylene	ND	ug/Kg	471

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.1	10	41%
Phenol-d6	4.4	10	44%
Nitrobenzene-d5	5.2	10	52%
2-Fluorobiphenyl	5.6	10	56%
2,4,6-Tribromophenol	5.2	10	52%
p-Terphenyl-d14	7.3	10	73%

Dilution Factor	1
% Solid	70%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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Data file: NALJ0885.D
Analysis Date: 22-May-01
Date Extracted: 22-May-01
Operator: MES
Sample ID: PB-01-23 (4-5')
Lab ID: NAL00125-001
Matrix: Soil
Date Sampled: 22-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	3.8	10	38%
Phenol-d6	4.2	10	42%
Nitrobenzene-d5	5.2	10	52%
2-Fluorobiphenyl	5.5	10	55%
2,4,6-Tribromophenol	5.1	10	51%
p-Terphenyl-d14	6.8	10	68%
Dilution Factor	1		
% Solid	100%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #1 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1019.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-15 (15-16')
Lab ID: NAL00125-093
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	371
2-Methylnaphthalene	ND	ug/Kg	371
Acenaphthylene	ND	ug/Kg	371
Acenaphthene	ND	ug/Kg	371
Fluorene	ND	ug/Kg	371
Phenanthrene	ND	ug/Kg	371
Anthracene	ND	ug/Kg	371
Fluoranthene	ND	ug/Kg	371
Pyrene	ND	ug/Kg	371
Benzo (a) Anthracene	ND	ug/Kg	371
Chrysene	ND	ug/Kg	371
Benzo (b)Fluoranthene	ND	ug/Kg	371
Benzo (k) Fluoranthene	ND	ug/Kg	371
Benzo (a) Pyrene	ND	ug/Kg	371
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	371
Dibenzo (a,h) Anthracene	ND	ug/Kg	371
Benzo (g,h,i) Perylene	ND	ug/Kg	371

Surrogates		Spike Amount	% Rec
2-Flourophenol	5.8	10	58%
Phenol-d6	6.9	10	69%
Nitrobenzene-d5	10	10	100%
2-Fluorobiphenyl	7.2	10	72%
2,4,6-Tribromophenol	6.0	10	60%
p-Terphenyl-d14	9.1	10	91%
Dilution Factor	1		
% Solid	89%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Data file: NALJ1018.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-15 (12-13')
Lab ID: NAL00125-092
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

Project #: NAL00-125
Project Site: Napolean, OH

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	363
2-Methylnaphthalene	ND	ug/Kg	363
Acenaphthylene	ND	ug/Kg	363
Acenaphthene	ND	ug/Kg	363
Fluorene	ND	ug/Kg	363
Phenanthrene	ND	ug/Kg	363
Anthracene	ND	ug/Kg	363
Fluoranthene	ND	ug/Kg	363
Pyrene	ND	ug/Kg	363
Benzo (a) Anthracene	ND	ug/Kg	363
Chrysene	ND	ug/Kg	363
Benzo (b)Fluoranthene	ND	ug/Kg	363
Benzo (k) Fluoranthene	ND	ug/Kg	363
Benzo (a) Pyrene	ND	ug/Kg	363
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	363
Dibenzo (a,h) Anthracene	ND	ug/Kg	363
Benzo (g,h,i) Perylene	ND	ug/Kg	363

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.7	10	47%
Phenol-d6	5.9	10	59%
Nitrobenzene-d5	9.0	10	90%
2-Fluorobiphenyl	6.6	10	66%
2,4,6-Tribromophenol	4.1	10	41%
p-Terphenyl-d14	8.2	10	82%

Dilution Factor	1
% Solid	91%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1016.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01 (11-12')
Lab ID: NAL00125-087
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	367
2-Methylnaphthalene	ND	ug/Kg	367
Acenaphthylene	ND	ug/Kg	367
Acenaphthene	ND	ug/Kg	367
Fluorene	ND	ug/Kg	367
Phenanthrene	ND	ug/Kg	367
Anthracene	ND	ug/Kg	367
Fluoranthene	ND	ug/Kg	367
Pyrene	ND	ug/Kg	367
Benzo (a) Anthracene	ND	ug/Kg	367
Chrysene	ND	ug/Kg	367
Benzo (b)Fluoranthene	ND	ug/Kg	367
Benzo (k) Fluoranthene	ND	ug/Kg	367
Benzo (a) Pyrene	ND	ug/Kg	367
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	367
Dibenzo (a,h) Anthracene	ND	ug/Kg	367
Benzo (g,h,i) Perylene	ND	ug/Kg	367

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.3	10	43%
Phenol-d6	5.3	10	53%
Nitrobenzene-d5	9.1	10	91%
2-Fluorobiphenyl	6.5	10	65%
2,4,6-Tribromophenol	4.1	10	41%
p-Terphenyl-d14	7.2	10	72%
Dilution Factor	1		
% Solid	90%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

BATCH #5 (Soil)

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Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1015.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01 (7-8')
Lab ID: NAL00125-086
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	ND	ug/Kg	330
2-Methylnaphthalene	ND	ug/Kg	330
Acenaphthylene	ND	ug/Kg	330
Acenaphthene	ND	ug/Kg	330
Fluorene	ND	ug/Kg	330
Phenanthrene	ND	ug/Kg	330
Anthracene	ND	ug/Kg	330
Fluoranthene	ND	ug/Kg	330
Pyrene	ND	ug/Kg	330
Benzo (a) Anthracene	ND	ug/Kg	330
Chrysene	ND	ug/Kg	330
Benzo (b)Fluoranthene	ND	ug/Kg	330
Benzo (k) Fluoranthene	ND	ug/Kg	330
Benzo (a) Pyrene	ND	ug/Kg	330
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	330
Dibenzo (a,h) Anthracene	ND	ug/Kg	330
Benzo (g,h,i) Perylene	ND	ug/Kg	330

Surrogates		Spike Amount	% Rec
2-Flourophenol	4.1	10	41%
Phenol-d6	4.5	10	45%
Nitrobenzene-d5	7.4	10	74%
2-Fluorobiphenyl	5.0	10	50%
2,4,6-Tribromophenol	5.5	10	55%
p-Terphenyl-d14	8.1	10	81%

Dilution Factor	1
% Solid	100%

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

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ATTN: Mr. Craig Savage

Project #: NAL00-125
Project Site: Napolean, OH

Data file: NALJ1026.D
Analysis Date: 30-May-01
Date Extracted: 29-May-01
Operator: MES
Sample ID: PB-01 (5-6')
Lab ID: NAL00125-085
Matrix: Soil
Date Sampled: 25-May-01
Method: 8270

ANALYTES	RESULTS	UNITS	REPORTING LIMIT (a)
Naphthalene	1700	ug/Kg	367
2-Methylnaphthalene	740	ug/Kg	367
Acenaphthylene	ND	ug/Kg	367
Acenaphthene	ND	ug/Kg	367
Fluorene	ND	ug/Kg	367
Phenanthrene	ND	ug/Kg	367
Anthracene	ND	ug/Kg	367
Fluoranthene	ND	ug/Kg	367
Pyrene	ND	ug/Kg	367
Benzo (a) Anthracene	ND	ug/Kg	367
Chrysene	ND	ug/Kg	367
Benzo (b)Fluoranthene	ND	ug/Kg	367
Benzo (k) Fluoranthene	ND	ug/Kg	367
Benzo (a) Pyrene	ND	ug/Kg	367
Indeno (1,2,3-cd) Pyrene	ND	ug/Kg	367
Dibenzo (a,h) Anthracene	ND	ug/Kg	367
Benzo (g,h,i) Perylene	ND	ug/Kg	367

Surrogates		Spike Amount	% Rec
2-Flourophenol	8.6	10	86%
Phenol-d6	3.5	10	35%
Nitrobenzene-d5	12	10	120%
2-Fluorobiphenyl	5.5	10	55%
2,4,6-Tribromophenol	4.2	10	42%
p-Terphenyl-d14	5.2	10	52%
Dilution Factor	1		
% Solid	90%		

(a) Reporting Limit is adjusted for the dilution factor and percent solid.

APPENDIX C

APPENDIX C

Soil Boring Logs, May 2001

GeoTrans, Inc.	710 Avis Drive Ann Arbor, MI 48108	Fax (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL: PB-01
DRILLING CO: GeoServe		LOCATION: At former PB-01		CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66		DATE: 5/25/2001		SURFACE ELEVATION: 687.6
PID MODEL & LAMP eV: Photovac 2020		LOGGED BY: MSK, MAR		CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): NA		WEATHER: Sunny, 65F		NORTHING / EASTING: -1225.51/-3136.67
SAND PACK INTERVAL: NA		SEAL INTERVAL: NA		SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA		HOLE ABANDONMENT: native/bentonite		GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA. NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	9:30	1.7	See previous log
		4		396-434	
		6		480-1260.0	
		8	9:40	231.0 14.6	
		10		2.9	
		12	60% 9:50	3.1	Orange brown, damp to dry, CLAY with little silt trace sand and gravel float, lighter mottles, stiff
		14		0.0	
		16		0.1	Becomes medium stiff to soft, uniform gray, no mottles
		18	100% 10:10	4.5- 10.7	Brown-olive, CLAY, moist, medium stiff, mottled pockets of silt, trace fine to medium sand and gravel Dk. Brown, CLAY, stiff, little sand, trace gravel
		20		1.3	Becomes gray brown
		21	100%	1.7	
		22			EOB @ 21'

NOTES:

Native/Bentonite

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Phone: (734) 213-2204

BORING # / WELL: PB-15

DRILLING CO: GeoServe	LOCATION: At former PB-15	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/25/2001	SURFACE ELEVATION: 687	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER: Sunny, 65F	NORTHING / EASTING: 1191.48/-3139.45	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA			

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2			
		4			
		6			
		8			
		10			
			10:30		
		12			1" Layler wet, soft, very fine to fine SAND and SILT
				9.7	Brown, hard, damp, silty CLAY
		14			Includes pockets of beige, loose very fine sand
				4.3	
		16			Becomes brown-gray mottled
				3.0	Becomes black, hard CLAY, includes trace fine sand, roots
		18			EOB @ 17'
		20			

NOTES:

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BORING # / WELL: PB-01-23

DRILLING CO: GeoServe	LOCATION: 10' S of PB-02	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/22/2001	SURFACE ELEVATION: 687.4	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER: Sunny, 65F	NORTHING / EASTING: -1228.17/-3164.82	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
			9:05		4" brown, moist, veryfine to fine SAND, loose
		2	100%	0.0	Brown, dense, moist CLAY, trace very fine sand
			9:10		
		4			
					6" brown, wet, dense, very fine SAND and SILT
		6	100%	0.0	6" orange-brown, silty CLAY, little very fine sand, damp to moist
					2" orange brown silty SAND, damp to moist
			9:20		2" brown, dense, moist CLAY
					Brown, most, loose very fine SAND and SILT
		8			becomes orange
					Gray, firm, moist, CLAY, trace very fine sand
		10		0.0	becomes brown, soft
			9:40		
		12			2" Gray, dense CLAY
		14		0.0	2" Gray-black CLAY
		16	80%	0.0	
					EOB @ 16'
		18			
		20			

NOTES:

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BORING # / WELL: PB-01-24

DRILLING CO: GeoServe	LOCATION: 10' W of PB-01-23	CLIENT/SITE NAME:	Campbell Soup
DRILLER: Dean Govan		JOB#:	P412-101
DRILL RIG: GeoProbe DT66	DATE: 5/22/2001	SURFACE ELEVATION:	687.2
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION:	NA
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER: Sunny, 65F	NORTHING / EASTING:	-1232.59/-3173.06
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD:	4' macrosampler
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL:	NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	10:05		Brown-gray, dry, hard CLAY, trace medium sand 2" layer, brown-gray, moist, loose, fine SAND, trace silt Brown-gray, dry, hard CLAY, trace medium sand, includes pieces of gravel slag (asphalt) becomes soft, sand increases
		4			Black-gray-green, dry CLAY, little medium sand, trace slag
			100%	2.5	Brown-gray, moist to wet, soft, very fine SAND and SILT
		6	10:10		Silt increases
		8	100%		Orange, dense, CLAY, includes trace silt 1" layer very fine SAND and SILT
		10			EOB @ 8'
		12			
		14			
		16			
		18			
		20			

NOTES:

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BORING # / WELL: PB-01-25

DRILLING CO: GeoServe	LOCATION: 20' S of PB-19, 20' W of PB-01-23	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/22/2001	SURFACE ELEVATION: 687.7	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER: Sunny, 65F	NORTHING / EASTING: -1245.53/-3156.45	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	10:30		Brown-gray, hard, dry, CLAY
					2" BLACK SLAG
		4		20-40	
			100%	1600.0	Black, wet, very fine SAND, asphalt slag, strong solvent odor
		6	10:40	300-700.0	
					Brown, soft, dry SAND, little silt
		8			Gray, hard, damp, mottled CLAY
					becomes softer
		10		0.0	Gray, damp, mottled CLAY
			100%		
		12	10:45	0.0	
		14		1.4	
		16	100%	0.0	
5/25/2001			11:40		Brown-gray, damp, mottled CLAY
		18		4.0	becomes black to dark gray, includes roots
				0.1	
		20			EOB @ 19'

NOTES:

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BORING # / WELL: PB-01-26

DRILLING CO: GeoServe	LOCATION: 20' W of PB-01-25	CLIENT/SITE NAME:	Campbell Soup
DRILLER: Dean Govan		JOB#:	P412-101
DRILL RIG: GeoProbe DT66	DATE: 5/22/2001	SURFACE ELEVATION:	687.8
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION:	NA
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING:	-1253.85/-3174.25
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD:	4' macrosampler
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL:	NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	11:20	0.0	Brown, loose, moist, SILTY CLAY includes layers of very fine sand and silt
		4		2000.0	Rock
		6	100%	2000.0	Black, damp, very fine to fine SAND, little silt, hydrocarbon odor, dense includes some gravel, slag and wood
		8	11:30		SAA, odor.
		10		27.0	includes layers of gray, very fine sand and silt
			100%	0.0	Gray-brown mottled soft, CLAY, includes trace medium to coarse sand becomes hard
		12	11:35		Brown soft CLAY, trace medium to coarse sand
		14		0.0	Brown, hard mottled, damp CLAY, includes coarse gravel SAA, trace very fine sand
		16	100%	0.0	
		18			EOB @ 16'
		20			

NOTES:

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BORING # / WELL: PB-01-27

DRILLING CO: GeoServe	LOCATION: 30' W of PB-01-26	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/22/2001	SURFACE ELEVATION: 688.7	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING: -1265.85/-3200.90	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	11:55	0.0	Brown, hard, mottled, dry, CLAY with coarse gravel
					4" BLACK CINDERS
				0.0	Brown, hard, mottled, dry, CLAY with coarse gravel
		4		75-120	Becomes olive-black, includes wood, buff concrete rock
		6	100%	34.0	Buff, dry, loose, very fine SAND, damp, trace silt
			12:00		Olive-green, damp, dense, SILTY SAND
		8		8.0	
				2.4	Olive-green, damp, dense, SILTY SAND
		10		0.0	
			50%		
		12	12:05	14.0	Olive-green, damp, dense, SILTY SAND
				0.0	
		14			
				0.0	
					Gray, moist, dense CLAY
		16	50%	0.0	mottled, includes medium to coarse sand
					EOB @ 16'
		18			
		20			

NOTES:

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DRILLING CO: GeoServe	LOCATION: 10' SW of PB-01-12	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/22/2001	SURFACE ELEVATION: 686.5	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING: -1211.02/-3173.93	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA			

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	14:05	0.0	Brown, dry, hard, SILTY CLAY 2" layer of brown to black moist, loose very fine SAND
4-5'		4		0.0	Brown, dry, hard, SILTY CLAY, includes asphalt, loose slag
		6	100%	0.0	
7-8'		8	14:10	0.0	Brown, dry to damp, soft SILT, little clay, trace very fine sand Brown, dry to damp, soft SILT, some clay, trace very find sand
		10		0.0	Brown, hard damp mottled CLAY, trace coarse gravel becomes gray/green becomes soft, brown
			100%		
12-13'		12	14:15	0.0	Brown-black, moist to wet, CLAY and very fine to fine SAND, soft
		14		0.0	
15-16'		16	100%	0.0	Brown, mottled, damp to moist CLAY, hard
		18			EOB @ 16'
		20			

NOTES:

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BORING # / WELL: PB-01-29

DRILLING CO: GeoServe	LOCATION: 10' E of PB-15, 10' S of PB-17	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/22/2001	SURFACE ELEVATION: 686.8	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING: -1184.00/-3146.50	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	14:45	0.0	Brown, dry, hard mottled CLAY
		4		0.0	Brown-black, soft, SANDY SILT, includes trash, slag, rocks
6-7'		6	100%		Brown, dry, SILT, hard, little clay
		8	14:40	450-650.0	Black-gray, soft, moist, SILT and very fine SAND becomes brown
		10		0.0	Brown, dry, hard, mottled CLAY, includes trace medium to coarse sand
			100%	0.0	2" layer brown, loose, moist very fine SAND and SILT
		12	15:00		2" layer, wet, very fine SAND and SILT
12-13'		14		0.0	Gray, soft, damp to moist CLAY becomes brown
14-15'		16	100%	0.0	Brown, soft, damp to moist CLAY
		18			EOB @ 16'
		20			

NOTES:

Native/Bentonite

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GeoTrans, Inc.	710 Avis Drive, Ann Arbor, MI 48108	Fax: (734) 213-5008, Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL: PB-01-30
DRILLING CO: GeoServe	LOCATION: 10' E of PB-29			CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66	DATE: 5/22/2001			SURFACE ELEVATION: 686.2
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR			CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:			NORTHING / EASTING: -1177.47/-3151.78
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA			SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite			GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	15:30		Brown, damp to moist, CLAY, soft, includes medium to coarse sand
		4		0.0	Mottled CLAY, damp to moist, includes medium to coarse sand includes coarse gravel includes fine sand and increased sand content
		6	70%	0.0	
		8	15:40	650-700.0	Black, soft, very fine SAND, no odor Black-olive, mottled CLAY, slight odor
		10		0.0	Olive, soft, damp SILTY SAND, little clay
		12	100% 15:50	0.0	Orange brown, moist, soft CLAY, little fine to medium sand, trace gravel
		14		0.0	Orange brown, moist, soft CLAY, little fine to medium sand, trace gravel becomes gray
		16	100%	0.0	becomes softer, mottled brown and gray
		18			EOB @ 16'
		20			

NOTES:

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DRILLING CO: GeoServe		LOCATION: 12' S of PB-01-31		CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66		DATE: 5/22/2001		SURFACE ELEVATION: 683.4
PID MODEL & LAMP eV: Photovac 2020		LOGGED BY: MSK, MAR		CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): NA		WEATHER:		NORTHING / EASTING: -1167.62/-3158.40
SAND PACK INTERVAL: NA		SEAL INTERVAL: NA		SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA		HOLE ABANDONMENT: native/bentonite		GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	16:20		Brown, damp, soft, SILTY SAND, little clay
				0.0	Brown, loose, moist, fine to medium SAND, little silt, trace verY fine sand
		4			Black, damp, soft SILTY CLAY
16:20 soil submitted SVOCs/VOCs				0.0	
		6		0.0	includes trace fine to medium sand
			100%		Black, damp, soft, SILTY CLAY, trace fine to medium sand
		8	16:30	0.0	
					3" brown, soft, wet, SILT
16:30 soil submitted SVOCs/VOCs				0.0	Brown, hard dry CLAY
		10			Gray-brown, hard, dry, mottled CLAY
16:35 soil submitted SVOCs/VOCs				0.0	includes trace silt
			100%		
		12			EOB @ 11'
		14			
		16			
		18			
		20			

NOTES:

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DRILLING CO: GeoServe		LOCATION: 20' W of PB*01-24		CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66		DATE: 5/23/2001		SURFACE ELEVATION: 688.1
PID MODEL & LAMP eV: Photovac 2020		LOGGED BY: MSK, MAR		CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): NA		WEATHER:		NORTHING / EASTING: -1241.79/-3189.80
SAND PACK INTERVAL: NA		SEAL INTERVAL: NA		SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA		HOLE ABANDONMENT: native/bentonite		GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	8:25		Black, dry, loose, very fine to fine SAND, no odor 1" layer saturated
				0.0	Brown, dry, hard CLAY and very fine SAND, little silt
		4		21.0	Black-brown, damp to moist, soft SILT, trace very fine sand
		6	100%		becomes black, moist 2" layer, olive, soft, moist, CLAY
		8	8:40	1470.0 1260-1420.0	Wet, tar-like fine SAND to fine GRAVEL, strong odor, sheen includes rubber hose piece 6" layer olive, soft, damp, SILT and very fine SAND increased sand content
		10		7.0	Olive-gray, hard, damp, CLAY, little fine to medium sand
		12	60% 8:50		Brown, mottled, CLAY, decreased sand
		14		0.5	
		16	50%	3.4	Brown, CLAY, with silt
		18			EOB @ 16'
		20			

NOTES:

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BORING # / WELL: PB-01-33

DRILLING CO: GeoServe	LOCATION: 20' W of PB-01-25	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/23/2001	SURFACE ELEVATION: 689.1	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): 11' bgs	WEATHER:	NORTHING / EASTING: -1262.90/-3146.13	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	9:05	0.0	Brown, damp, firm, CLAY, trace silt
		4		0.0	Brown, dry to damp, SILT, little clay, trace very fine sand
		6	75%		Brown, dry, loose, fine SAND
		8		0.0	4" layer, brown, dry, hard, SILTY CLAY includes 1/2" roofing material Buff, damp, loose, very fine to fine SAND 2" layer, brown damp, hard, CLAY
		10		0.5	includes medium sand and silt
		12	50%	2.0	includes red and black staining, odor No recovery
temp well screen set to collect water sample 11-16'		14			EOB @ 11'
		16			
		18			
		20			

NOTES:

Native/Bentonite

FORM: P:\HSG\FORMS\FIELD\boring log.XLS MSK 7/29/99

Project File ID: P:\Campbell Soup\Boring Logs.xls

GeoTrans, Inc.	710 Avis Drive Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 2	BORING # / WELL: PB-01-34
DRILLING CO: GeoServe		LOCATION: 20' W of PB-01-33		CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66		DATE: 5/23/2001		SURFACE ELEVATION: 689.3
PID MODEL & LAMP eV: Photovac 2020		LOGGED BY: MSK, MAR		CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): 11' bgs		WEATHER:		NORTHING / EASTING: -1273.96/-3163.50
SAND PACK INTERVAL: NA		SEAL INTERVAL: NA		SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA		HOLE ABANDONMENT: native/bentonite		GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	10:00	0.0	Brown, dry, SILTY CLAY, little coarse gravel
		4		0.0	Brown mottled with gray, dry, SILTY CLAY, little coarse gravel
		6	100%	0.4	Brown, dry, loose, SILTY SAND, includes slag, trace coarse gravel
8-9'		8	10:10	0.0	2" layer brown, damp to moist, SILTY SAND. Black to buff, damp, loose very fine SAND, trace slg, coarse gravel
		10		5.5-9	becomes gray-black 1" layer of asphalt/slag 1" layer olive, damp, hard CLAY 1" layer black, damp, loose very fine SAND, no odor
No recovery 11-16' water at 12' temp well set 11.5-16.5'		12	30%		No recovery 11'-16'
		14			
		16			
		18	10:20		Gray-black, wet, SILT with very fine SAND, includes roots and wood Gray, dense, damp, mottled CLAY includes roots and debris
		20	100%		

NOTES:

Native/Bentonite

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Project File ID: P:\Campbell Soup\Boring Logs.xls

GeoTrans, Inc. A TETRA TECH COMPANY
710 Avis Drive Ann Arbor, MI 48108
Fax: (734) 213-5008
Phone: (734) 213-2204

BORING # / WELL: PB-01-34

DRILLING CO: GeoServe	LOCATION: 20' W of PB-01-33	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/23/2001	SURFACE ELEVATION: 689.3	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER INITAL, COMPLETION): 11' bgs	WEATHER:	NORTHING / EASTING: -1273.96/-3163.50	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		20			
21-22'		22	10:45		Brown-gray, dry, hard, mottled CLAY, little medium to coarse sand
		24			Brown-gray, dry, hard mottled CLAY, little medium to coarse sand
25-26'		26			Same as above, very hard
		28			EOB @ 26'
		30			
		32			
		34			
		36			
		38			
		40			

NOTES:

Native/Bentonite

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Fax: (734) 213-5008 Phone: (734) 213-2204

BORING # / WELL: PB-01-35

DRILLING CO: GeoServe	LOCATION: 20' N of PB-01-33	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/23/2001	SURFACE ELEVATION: 688.2	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): 8.7' bgs	WEATHER:	NORTHING / EASTING: -1279.89/-3138.75	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA			

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		—			
		2 —	11:45		Brown, dry to damp, hard, SILTY CLAY, trace medium sand to coarse gravel
		—			Brown, dry to damp, hard SILTY CLAY, trace medium sand to coarse gravel
		4 —			
		—			
		6 —	100%		Buff-brown, loose, dry to damp, very fine to fine SAND, trace silt, no odor
		—	11:50		
		8 —			Black loose, damp to wet, very fine SAND, includes some slag
		—			
		10 —			No recovery
wet at 11'		—	30%		
Screen 11-16'		12 —	11:55		
		—			No recovery
		14 —			
		—			
		16 —	0%		
		—	12:10		
		18 —			No recovery
		—			
		20 —	0%		

NOTES:

Native/Bentonite

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710 Avis Drive Ann Arbor, MI 48108
Fax: (734) 213-5008 Phone: (734) 213-2204

BORING # / WELL: PB-01-35

DRILLING CO: GeoServe	LOCATION: 20' N of PB-01-33	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/23/2001	SURFACE ELEVATION: 688.2	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): 8.7' bgs	WEATHER:	NORTHING / EASTING: -1279.89/-3138.75	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		20			
		22	12:00		Brown-gray, hard, dry, mottled CLAY, trace coarse sand and gravel
5/25/2001			100%		
		24			
		26			
		28			
		30			
		32			
		34			
		36			
		38			
		40			

NOTES:

Native/Bentonite

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BORING # / WELL: PB-01-36

DRILLING CO: GeoServe	LOCATION: 50' N of PB-01-35	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/23/2001	SURFACE ELEVATION: 685.5	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING: -1323.83/-3106.04	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	14:35	0.0	Brown, damp, firm, CLAY, trace silt
SVOCs/VOCs 14:35 4-5'		4		0.0	
		6	25%		Brown, damp, firm CLAY, increased silt
SVOCs/VOCs 14:40 8-9'		8	14:40	0.0	Brown-gray, damp, hard CLAY, motttled, little fine to medium sand
		10		0.0	Gray, damp to moist, CLAY, trace very fine sand some olive coloring
			100%		Lenses of orange-brown SILT, 1" layer SILT, damp to moist
SVOCs/VOCs 14:45 12-13'		12	14:45	0.0	Gray, soft, damp SILT Brown, damp, hard, CLAY, little silt
		14		0.0	becomes olive 4" layer black, soft, SILTY CLAY
		16	100%		Brown, damp to moist, hard, CLAY, little silt
		18			
		20			

NOTES:

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BORING # / WELL: PB-01-37

DRILLING CO: GeoServe	LOCATION: 50' N of PB-01-36	CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan		JOB#: P412-101
DRILL RIG: GeoProbe DT66	DATE: 5/23/2001	SURFACE ELEVATION: 687.1
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA
DEPTH TO WATER INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING: -1274.41/-3095.40
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler
WELL COVER TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	15:00	0.0	Brown, damp, firm CLAY, trace silt
					increased silt content
		4		0.0	
		6	50%		
			15:10	0.0	Brown, damp, firm CLAY, little silt, sand lenses.
		8			Brown-orange, soft, damp CLAY, little silt, trace very fine sand.
				0.0	
		10		0.0	Orange-brown, moist, soft SILT, trace very fine sand.
			100%	0.0	Black, stained, soft, moist, SILTY SAND.
		12	15:20	0.0	Gray-brown, moist, soft, CLAY, trace fine sand.
		14			
		16	10%	0.0	
			15:30		Brown-olive gray, moist, soft to firm, CLAY, trace fine sand, silt.
		18			Black-dark brown, CLAY LOAM
					Olive gray with brown mottle, CLAY, little fine to medium sand, trace silt.
		20	100%	0.0	Mottled gray/brown, dry, friable, CLAY with some silt.

NOTES:

Native/Bentonite

GeoTrans, Inc.	710 Avis Drive Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 2 of 2	BORING # / WELL: PB-01-37
DRILLING CO: GeoServe		LOCATION: 50' N of PB-01-36		CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66		DATE: 5/23/2001		SURFACE ELEVATION: 687.1
PID MODEL & LAMP eV: Photovac 2020		LOGGED BY: MSK, MAR		CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): NA		WEATHER:		NORTHING / EASTING: -1274.41/-3095.40
SAND PACK INTERVAL: NA		SEAL INTERVAL: NA		SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA		HOLE ABANDONMENT: native/bentonite		GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		20		0.0	
			100%		Mottled gray/brown, dry, friable, CLAY with some silt.
		22			EOB @ 21'
		24			
		26			
		28			
		30			
		32			
		34			
		36			
		38			
		40			

NOTES:

Native/Bentonite

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Phone: (734) 213-2204

BORING # / WELL: PB-01-38

DRILLING CO: GeoServe	LOCATION: 30' N of PB-01-22	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/23/2001	SURFACE ELEVATION: 684.3	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING: -1207.85/-3053.39	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	16:30		Brown, moist, loose, medium SAND, little clay, trace silt.
					4" layer, gray-brown, dry, stiff, CLAY, little fine sand, some fine to medium gravel trace silt.
		4		0.0	Brown, dry to moist, loose, medium SAND, some clay, trace silt. 2" layer becomes dark brown.
		6	60%	0.0	Brown, CLAY and medium SAND. Gray, firm, dry, CLAY, little sand, trace silt.
		8	16:45	24-35 30-60	Dark gray-brown, moist, loose, SILTY SAND, includes alternating clay/sand lens. Becomes SILTY CLAY, trace coarse sand to fine gravel.
		10	50%	1.1	Brown, slight mottled, moist, firm CLAY, trace silt, fine sand. Brown, slightly mottled, moist, firm CLAY, trace silt, fine sand, coarse gravel.
		12	17:00	0.0	Brown, moist, soft to firm, CLAY, little fine sand, trace silt.
		14		0.0	Dark gray, dry, firm, CLAY, little silt. Olive gray, moist, soft to firm, CLAY, little silt, trace coarse gravel.
		16	95%	0.0	Medium brown, moist, dense, fine to medium SAND, clumps of clay, little silt. Mottled gray/brown, dry, hard, CLAY, trace coarse sand, silt.
		18			EOB @ 16'
		20			

NOTES:

Native/Bentonite

GeoTrans, Inc.	710 Avis Drive Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL PB-01-39
DRILLING CO: GeoServe		LOCATION: 40' E of PB-01-37	40' N of the grid	CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66		DATE: 5/23/2001		SURFACE ELEVATION: 685.4
PID MODEL & LAMP eV: Photovac 2020		LOGGED BY: MSK, MAR		CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): NA		WEATHER:		NORTHING / EASTING: -1253.85/-3060.17
SAND PACK INTERVAL: NA		SEAL INTERVAL: NA		SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA		HOLE ABANDONMENT: native/bentonite		GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	17:40	0.0	Light to dark brown, dry, medium loose, very fine SAND, trace silt, clay, fine to medium gravel.
		4		0.0	Lt.-Dk. Brown, dry, m. loose, very fine SAND, trace silt, clay, fine to medium gravel, organic material.
		6	90%		becomes mottled, iron staining
		8	17:45	0.0	Reddish brown, dry, loose, fine SAND, trace clay, silt, fine to medium gravel.
		10		0.0	Gray-brown, loose, dry to moist, fine to medium SAND, trace silt,slag, medium gravel.
		12	50%	0.0	Medium brown, moist, loose, very fine to fine SAND, little clay, trace silt.
		14	18:10	0.0	Lt-Dk. Brown, dry, firm, very fine to fine SAND, little clay, trace silt clay lens
		16	80%	0.0	Mottled gray/brown, dry, firm, CLAY, trace very fine sand, fine gravel Mottled gray/brown CLAY, dry, firm, trace very fine sand, fine gravel, roots. Lenses buff-beige, moist, very fine to fine SAND Brown-gray, moist, soft CLAY becomes hard last 4".
		18			EOB @ 16'
		20			

NOTES:

Native/Bentonite

GeoTrans, Inc.	710 Avis Drive Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL: PB-01-40
DRILLING CO: GeoServe		LOCATION: S. edge of top of berm		CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66		DATE: 5/24/2001		SURFACE ELEVATION: 682.4
PID MODEL & LAMP eV: Photovac 2020		LOGGED BY: MSK, MAR		CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): NA		WEATHER:		NORTHING / EASTING: -1129.26/-3217.82
SAND PACK INTERVAL: NA		SEAL INTERVAL: NA		SAMPLING METHOD: 4' macrosampler
WELL COVER TYPE/COMPLETION): NA		HOLE ABANDONMENT: native/bentonite		GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	9:30	0.0	Brown-gray, soft, dry, greasy CLAY, mottled, little coarse gravel
		4		0.0	
		6	50%		Brown-black, loose, dry, very fine SAND, includes slag, wood, no odor
		8	9:35	0.0	Gray, soft, dense, SILTY CLAY, trace very fine sand becomes mottled CLAY, same as above
		10		0.0	
		12	50% 9:45	0.0	6" layer, beige, dry to damp, very fine to fine SAND, trace silt.
		14		0.0	Brown, hard, damp CLAY, mottled with black
		16	100%		Black, soft, damp, very fine SAND and CLAY Black-olive, mottled CLAY becomes soft, moist
		18			EOB @ 16'
		20			

NOTES:

Native/Bentonite

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Project File ID: P:\Campbell Soup\Boring Logs.xls

GeoTrans, Inc.	710 Avis Drive Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL: PB-01-41
DRILLING CO: GeoServe	LOCATION: 30' W of 33-38	80' S of 33-34 line	CLIENT/SITE NAME:	Campbell Soup
DRILLER: Dean Govan			JOB#:	P412-101
DRILL RIG: GeoProbe DT66	DATE:	5/24/2001	SURFACE ELEVATION:	687.2
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY:	MSK, MAR	CASING ELEVATION:	NA
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:		NORTHING / EASTING:	-1209.38/-3207.37
SAND PACK INTERVAL: NA	SEAL INTERVAL:	NA	SAMPLING METHOD:	4' macrosampler
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT:	native/bentonite	GROUT INTERVAL:	NA
CASING (INTERVAL, TYPE, DIA.): NA			HOLE DIA:	2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	10:10		Black, dry, very fine SAND, cinders
					Gray, fill, moist, fine SAND to coarse GRAVEL
		4		0.0	
				0.0	Brown, dry, loose, very fine SAND
		6	70%		Brown, soft, damp, SILT Brown, hard, dry CLAY and medium GRAVEL
			10:20	0.0	Brown-gray, soft, damp, mottled CLAY
		8			becomes hard, grasy, olive color
				0.0	
		10			becomes soft
			100%		
		12	10:30	0.0	becomes wet, no water sample taken
					Gray, dry, mottled CLAY, soft, includes little coarse gravel.
		14		0.0	
		16	70%		
					EOB @ 16'
		18			
		20			

NOTES: Native/Bentonite

GeoTrans, Inc. A TETRA TECH COMPANY
710 Avis Drive Ann Arbor, MI 48108
Fax: (734) 213-5008
Phone: (734) 213-2204

BORING # / WELL: PB-01-42

DRILLING CO: GeoServe	LOCATION: In line with W edge of berm PB-41	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/24/2001	SURFACE ELEVATION: 687.5	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING: -1237.08/-3254.30	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	10:45		Gray, moist, SILT and medium SAND
					Gray, soft, damp CLAY, trace coarse gravel
				0.0	2" layer, brown, moist, very fine to fine sand
		4			becomes softer
				0.0	becomes harder, includes trace coarse gravel.
		6	100%		last 2", beige, SLAG/ROCK FRAGMENTS
			10:55	0.0	Gray, soft damp CLAY, trace c. gravel, lenses of brown, soft very fine sand
		8			Gray, hard, greasy, mottled CLAY, little coarse sand and gravel
				400-700	
		10			includes black staining, cinders, no odor
					2" layer gray
				100-400	Brown-gray, soft, CLAY, lenses brown fine SAND
			100%		Gray, hard, greasy, mottled CLAY, trace medium gravel
		12	11:00		Gray, moist, soft, SILTY CLAY, trace very fine sand.
				0.0	Includes lenses of very fine sand
		14			
				0.0	
					Gray, moist, soft SILTY CLAY.
		16	70%		
					EOB @ 16'
		18			
		20			

NOTES:

Native/Bentonite

GeoTrans, Inc.	710 Avis Drive Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL: PB-01-43

DRILLING CO: GeoServe	LOCATION: 110' W of PB-5	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/24/2001	SURFACE ELEVATION: 687.7	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING: -1259.36/-3225.02	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA			

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	11:15		Black, wet, cinders, very fine SAND, soft
				0.0	Brown,-gray, hard, damp CLAY, little medium to coarse sand. becomes olive-black
		4			Brown-orange, dense, damp SILT, trace very fine sand.
				0.0	
		6	75%		Gray, hard, damp CLAY, little medium to coarse sand. lenses of silt
			11:30	0.0	Black, wet, very fine SAND, no odor, some olive coloring, some reddish coloring
		8			3" layer concrete
				0.0	Brown, hard, dry to damp CLAY, little gravel, trace lenses brown very fine-fine sand.
		10			Brown, hard, dry to damp CLAY, little grave, trace medium sand.
			70%	0.0	
		12	11:45		Gray-brown, hard, dry, CLAY, trace medium to coarse gravel.
				0.0	includes lenses of silt
		14			
				0.0	Gray-brown, soft, dry CLAY, trace medium to coarse gravel.
		16	100%		
					EOB @ 16'
		18			
		20			

NOTES:

Native/Bentonite

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710 Avis Drive Ann Arbor, MI 48108
Fax: (734) 213-5008
Phone: (734) 213-2204

BORING # / WELL: PB-01-44

DRILLING CO: GeoServe	LOCATION: SW edge of berm	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/24/2001	SURFACE ELEVATION: 685.5	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING: -1186.13/-3264.55	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	11:50		Black, dry, loose very fine SAND and SILT, no odor
		4			Brown, soft, damp CLAY includes concrete fill pieces includes lenses of very fine to fine sand
		6	65%		Brown, soft, damp CLAY, includes very fine to fine sand.
		8	12:05		Brown, hard, dry, CLAY, includes medium to coarse gravel.
		10			Brown, hard, dry, CLAY, includes medium to coarse gravel.
		12	100% 12:15		Brown, loose, moist to wet, very fine SAND and SILT
		14			2" layer, brown, hard, damp CLAY, trace very fine sand
		16	70%		2" layer, brown, wet very fine SAND 2" layer, CLAY from above
		18			EOB @ 16'
		20			

NOTES:

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GeoTrans, Inc.	710 Avis Drive Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL: PB-01-45
DRILLING CO: GeoServe	LOCATION: 30' N of PB-05			CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66	DATE: 5/24/2001			SURFACE ELEVATION: 689.7
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR			CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): 7.7 bgs	WEATHER:			NORTHING / EASTING: -1240.84/-3108.57
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA			SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite			GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	14:30	0.0	Brown-gray, dry, hard CLAY, trace medium to coarse sand
		4		0.0	includes little very fine sand, becomes softer
		6	100%	154.0	Olive-black, damp, hard, CLAY, trace very fine sand.
		8	14:50	200-340.0 0.0	
Water screen 11-16'		10			Olive-black, damp, hard, CLAY, little very fine sand.
		12	75% 15:00	480.0 0.0	bottom 2", black staining, fine to medium SAND, little silt, odor, includes nails & wire 1" layer brown, soft, moist, CLAY 4" layer, black-olive, very fine SAND and CLAY, includes nails & wire
		14		0.0	Brown, soft, moist, CLAY, mottled
		16	40%		includes trace very fine sand.
		18			EOB @ 16'
		20			

NOTES:

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GeoTrans, Inc. A TETRA TECH COMPANY
710 Avis Drive Ann Arbor, MI 48108
Fax: (734) 213-5008
Phone: (734) 213-2204

BORING # / WELL: PB-01-46

DRILLING CO: GeoServe	LOCATION: 8' N of PB-01-45, 18' E of PB-01-45	CLIENT/SITE NAME: Campbell Soup	
DRILLER: Dean Govan		JOB#: P412-101	
DRILL RIG: GeoProbe DT66	DATE: 5/24/2001	SURFACE ELEVATION: 688.6	
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION: NA	
DEPTH TO WATER (INITAL, COMPLETION): 6.6 bgs	WEATHER:	NORTHING / EASTING: -1248.85/-3091.70	
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 4' macrosampler	
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL: NA	
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"	
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA			

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		—			
		2 —	15:15	0.0	Brown, soft, dry, CLAY, mottled, includes trace coarse gravel.
		—			
		4 —			Brown, soft, dry, CLAY, mottled, includes trace coarse gravel, lenses of brown, dry, loose very fine sand.
		—		0.0	
		6 —	100%		
		—	15:20	0.0	Brown, soft, dry, CLAY, mottled, includes trace coarse gravel, lenses of brown, dry, loose very fine sand.
		8 —			
		—		0.0	3" layer, red-brown, SILTY CLAY, includes rocks and wood
		10 —			
Water at 11'		—	50%	0.0	Black, stained, very fine SAND, trace clay, no odor, "900"
		12 —			No recovery, water
		—		0.0	
		14 —			
		—		0.0	
		16 —			
		—	15:30	0.0	Buff, dry, loose, very fine SAND
		18 —			Black, soft, damp, CLAY, trace very fine sand.
		—		0.0	
		20 —		0.0	

NOTES:

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DRILLING CO: GeoServe	LOCATION: 8'N of PB-01-45			CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan	18' E of PB-01-45			JOB#: P412-101
DRILL RIG: GeoProbe DT66	DATE: 5/24/2001			SURFACE ELEVATION: 688.6
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR			CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): 6.6 bgs	WEATHER:			NORTHING / EASTING: -1248.85/-3091.70
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA			SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite			GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		20	10%	0.0	
		22	15:35	0.0	Brown-gray, dry, mottled very hard, CLAY, trace medium to coarse sand.
		24		0.0	Brown-gray, dry, mottled very hard, CLAY, trace medium to coarse sand.
		26	100%	0.0	
		28			EOB @ 26'
		30			
		32			
		34			
		36			
		38			
		40			

NOTES:

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710 Avis Drive Ann Arbor, MI 48108
Fax: (734) 213-5008
Phone: (734) 213-2204

BORING # / WELL: PB-01-47

DRILLING CO: GeoServe	LOCATION:	CLIENT/SITE NAME:	Campbell Soup
DRILLER: Dean Govan		JOB#:	P412-101
DRILL RIG: GeoProbe DT66	DATE: 5/24/2001	SURFACE ELEVATION:	686.3
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION:	NA
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER:	NORTHING / EASTING:	-1188.93/-3095.46
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD:	4' macrosampler
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL:	NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	16:20	0.0	Brown, dry, hard, CLAY, trace fine to medium gravel.
		4		0.0	
		6	100%		2" layer, brown, dry, loose, very fine SAND 2" layer, brown, medium hard, CLAY
		8	16:30	0.0	Brown, dry, loose, very fine SAND, lenses of brown, soft, dry, CLAY
		10		0.0	6" layer, brown, soft, dry CLAY, trace coarse sand to medium gravel.
		12	50%	0.0	Brown, soft, dry, SILTY CLAY
		14	16:50	0.0	1" layer ROCK FRAGMENTS
		16	50%	0.0	Brown, soft, dry, SILTY CLAY includes rock fragments
		18			EOB @ 16'
		20			

NOTES:

Native/Bentonite

GeoTrans, Inc.	710 Avis Drive Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL: PB-01-48
DRILLING CO: GeoServe		LOCATION: 20' E of PB-11		CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66		DATE: 5/24/2001		SURFACE ELEVATION: 686.5
PID MODEL & LAMP eV: Photovac 2020		LOGGED BY: MSK, MAR		CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): NA		WEATHER:		NORTHING / EASTING: 1176.98/-3126.64
SAND PACK INTERVAL: NA		SEAL INTERVAL: NA		SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA		HOLE ABANDONMENT: native/bentonite		GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	17:00	0.0	Brown, soft, dry, CLAY, trace coarse sand to fine gravel
		4		0.0	Brown, loose, damp to moist, very fine SAND and SILT.
		6	60%		2" layer, Black, ROCK FRAGMENTS and SLAG includes root fragments, soft
		8	17:05		Brown-black, wet, very fine to medium SAND, little medium to coarse sand. includes rock fragments. Brown, moist, soft, SILT, trace very fine sand includes rock fragments, no odor, no staining
		10			1" layer, brown, soft, very fine SAND and SILT, no odor 1" brown, soft, dry, CLAY
		12	60% 17:10	0.0	Brown, soft, wet, SILT, trace very fine sand becomes saturated.
		14		0.0	Brown, soft, saturated, SILT, trace very fine sand
		16	100%	0.0	Brown-gray, medium soft to hard, CLAY, includes rock fragments Mottled
		18			EOB @ 16'
		20			

NOTES:

Native/Bentonite

GeoTrans, Inc. A TETRA TECH COMPANY
710 Avis Drive Ann Arbor, MI 48108
Fax: (734) 213-5008
Phone: (734) 213-2204

BORING # / WELL: PB-01-49

DRILLING CO: GeoServe	LOCATION: Toe of berm-S.	CLIENT/SITE NAME:	Campbell Soup
DRILLER: Dean Govan	17' S of PB-01-31	JOB#:	P412-101
DRILL RIG: GeoProbe DT66	DATE: 5/25/2001	SURFACE ELEVATION:	681.1
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION:	NA
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER: Sunny, 65F	NORTHING / EASTING:	-1145.72/-3171.19
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD:	4' macrosampler
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL:	NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.): NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	8:00	0.0	Brown, dry, hard, CLAY, trace medium sand to fine gravel.
		4		0.0	mottled with gray
		6	100%	0.0	becomes soft Brown, dry, hard CLAY, trace fine gravel.
		8	8:10	0.0	Brown, dry, hard CLAY, trace fine gravel, silt.
		10		0.0	Brown, dry, hard CLAY, trace fine gravel, silt. includes lenses of very fine sand and silt
		12	100% 8:15	0.0	Olive-gray-brown, soft, dry, CLAY, trace fine gravel, silt, lenses of very fine sand and silt, includes wood pieces becomes gray-black
		14		0.0	Brown-gray, hard, dry CLAY, mottled, trace very fine sand, includes roots.
		16	100%	0.0	
		18			EOB @ 16'
		20			

NOTES:

Native/Bentonite

GeoTrans, Inc. A PETRA TECH COMPANY
710 Avis Drive Ann Arbor, MI 48108
Fax: (734) 213-5008 Phone: (734) 213-2204

BORING # / WELL: PB-01-50

DRILLING CO: GeoServe	LOCATION: 20' N of PB-01-43	CLIENT/SITE NAME:	Campbell Soup
DRILLER: Dean Govan		JOB#:	P412-101
DRILL RIG: GeoProbe DT66	DATE: 5/25/2001	SURFACE ELEVATION:	687.8
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR	CASING ELEVATION:	NA
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER: Sunny, 65F	NORTHING / EASTING:	-1286.70/-3197.21
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD:	4' macrosampler
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite	GROUT INTERVAL:	NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA:	2"

GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
No screening		2	8:45	0.0	6" black, loose dry CINDERS Brown, hard, dry, SANDY CLAY
		4		0.0	Brown-beige, dry, loose, very fine SAND 1" layer CLAY Brown-beige, dry, loose, very fine SAND
		6	60%	0.0	1" layer Brown, hard, dry, CLAY
		8	8:50		No recovery
		10	0%		
		12	8:55	4.4	Black, wet, very fine to medium SAND and SILT Orange-brown, wet, very fine to coarse SAND and SILT, some medium to coarse
		14		8.2	gravel., includes glass and mail debris. includes clumps of brown, soft silt
		16	25%	6.0 4.7	becomes brown-orange, soft, SILT, trace very fine sand, no odor
		18	9:10	1.2	Gray, soft, dry, SILTY CLAY becomes black, includes very fine sand. turns olive colored
		20		4.1	
		21	100%	0.4	Brown-gray, hard, greasy, mottled, dry, CLAY
		22			EOB @ 21'

NOTES:

Native/Bentonite

GeoTrans, Inc.	710 Avis Drive Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL: PB-01-51
DRILLING CO: GeoServe	LOCATION: S. toe of berm			CLIENT/SITE NAME: Campbell Soup
DRILLER: Dean Govan				JOB#: P412-101
DRILL RIG: GeoProbe DT66	DATE: 5/25/2001			SURFACE ELEVATION: 680.2
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: MSK, MAR			CASING ELEVATION: NA
DEPTH TO WATER (INITAL, COMPLETION): NA	WEATHER: Sunny, 65F			NORTHING / EASTING: -1150.70/-3120.22
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA			SAMPLING METHOD: 4' macrosampler
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: native/bentonite			GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.: NA				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (ppm)	LITHOLOGIC DESCRIPTION
		0			
		2	11:55	0.0	Brown, wet, very fine SAND and SILT 1" layer stone Orange-brown, loose, dry, very fine SAND and SILT
		4		0.0	Brown, hard, dry, CLAY, some medium to coarse gravel Brown, mottled, hard, dry CLAY, some medium to coarse gravel, trace silt.
		6	70%		
		8	12:00	0.0	includes very fine sand Brown-orange, mottled, greasy, soft to medium hard, CLAY
		10		0.0	Olive-black, hard, dry, CLAY, organic rich, roots and wood
		12	12:15	0.0	Olive-black, very hard,very dry, CLAY, organic rich, roots and wood.
		14		2.0	includes trace very fine sand to medium gravel
		16	100%	2.6	
		18			EOB @ 16'
		20			

NOTES:

Native/Bentonite

APPENDIX D

APPENDIX D

Remediation Feasibility Analysis Summary

Remediation Technology Evaluation Matrix
Former Sludge Holding Pit - Campbells Soup Company, Napoleon, Ohio

Treatment Alternative	Description	Advantages	Disadvantages	Cost
Low-Temperature Thermal Desorption Cost: $$$ Performance: ★★★	▪ Excavate overlying fill soils ▪ Mobilize LTTD unit to site ▪ Excavate contaminated soils in 20 cy lifts for composite sampling ▪ Treat soils in excess of cleanup levels with LTTD ▪ Sample and analyze treated soil lift ▪ Return treated soil to excavation ▪ Return excavated fill soils to excavation ▪ Grade and vegetate filled area	▪ Relatively easy permitting ▪ Proven technology with minimal treatment risk ▪ Many vendors available for competitive pricing ▪ Rapid treatment time (5-20 tons/hour) ▪ Completion in less than six months ▪ No long term site monitoring expected ▪ Destroys contaminants ▪ No deed restrictions expected ▪ No off site liability	▪ Moisture content of solids affect treatment time and cost ▪ Large or abrasive material must be segregated ▪ Plastic or clayey material may require use of shredder and other amendments ▪ Off site disposal of treated soils if replacement denied ▪ Costs sensitive to soil volume	▪ $5/cy for excavation ▪ $5/cy for replacement ▪ $25K to $75K mobilization charge ▪ $50 to $150/ton for treatment ▪ $10K/acre regrade and vegetate ▪ Total potential cost = **$150K to 350K**
On Site Landfarming (Composting) Cost: $$ Performance: ★★★	▪ Prepare area for landfarm (install liner/berm) ▪ Excavate/stockpile overlying fill soils ▪ Excavate contaminated soils ▪ Construct landfarm with contaminated soils, 1.5-feet-deep, in windrows with fluffing agents (sawdust, peat, amendments) ▪ Return fill soils to excavation ▪ Complete weekly tilling of windrows for six months. ▪ Conduct composite sampling of landfarm ▪ Regrade and seed landfarm area.	▪ Proven technology with below average treatment risk ▪ Minimal design and monitoring ▪ Moderate treatment time ▪ Costs minimally sensitive to soil volume ▪ Destroys or volatilizes contaminants ▪ No long term site monitoring expected ▪ No deed restrictions anticipated ▪ No off site liability	▪ Large material must be removed from soils prior to construction ▪ Plastic or clayey material may require use of shredder ▪ Leachate may require treatment if reuse in compost denied ▪ Large land area required (1/2 to 1 acre) ▪ VOCs emitted during tilling may require capture and treatment ▪ Permitting may prove difficult without liner/leachate collection ▪ Off site disposal of treated soils if replacement denied	▪ $5/cy for excavation ▪ $5/cy for replacement ▪ $25K-$50K Lab studies and design ▪ $30 to $125/cy for treatment ▪ $10K/acre regrade and vegetate ▪ Total potential cost = **$100K to 200K**
On-Site Bioreactor Cost: $$$ Performance: ★★	▪ Prepare onsite area for above-ground bioreactor (liner, leacheate collection, berm) ▪ Excavate/stockpile overlying fill soils ▪ Excavate contaminated soils ▪ Construct bioreactor in 2' lifts with aeration/drip piping network installed between lifts ▪ Return fill soils to excavation and regrade ▪ Cover bioreactor and install aeration/nutrient drip equipment ▪ Conduct aeration/nutrient addition activities for 12 to 24 months. ▪ Collect soil borings from bioreactor for analyses. ▪ Decommission bioreactor/return treated soils to excavation or elseware onsite and regrade.	▪ Requires less land area than laodfarming (composting) ▪ Proven technology with average treatment risk ▪ Moderate design and monitoring ▪ Moderate treatment time ▪ Costs minimally sensitive to soil volume ▪ Destroys or volatilizes contaminants ▪ No long term site monitoring expected ▪ Easier to contain volatile emissions than composting ▪ No deed restrictions anticipated ▪ No off site liability	▪ Large material must be removed from soils prior to construction ▪ Plastic or clayey material may require use of shredder ▪ Leachate may require treatment if reuse in biorcactor denied ▪ Moderate land area required ▪ Remote location may require power supply installation ▪ VOCs emitted during aeration may require treatment prior to discharge ▪ Off site disposal of treated soils if replacement denied	▪ $5/cy for excavation ▪ $5/cy for replacement ▪ $50K-$75K lab studies and design ▪ $100 to $175/cy for treatment ▪ $10K/acre regrade and vegetate ▪ Total potential cost = **$150K to $350K**
Off-Site Disposal Cost: $$$$ Performance: ★★★★	▪ Excavate/stockpile overlying fill soils ▪ Excavate/sample/analyze contaminated soils in 20 cy lifts (roll-off containers) ▪ Transport contaminated soils to TSDF for disposition ▪ Return clean soils to excavation ▪ Regrade and vegetate excavation	▪ No treatment risk ▪ Minimal design and no monitoring ▪ Very rapid completion ▪ No permitting ▪ No deed restriction anticipated	▪ Off site liability associated with disposal at TSDF ▪ Transportation risks ▪ Costs very sensitive to soil volume requiring disposal	▪ $10/cy excavation and replacement of fill ▪ $7/cy excavation, loading and storage of contaminated soils ▪ $10-$30/ton transportation ▪ $200 to $300/ton tipping fee ▪ Total potential cost = **$250K to $700K**
RCRA Capping Cost: $ Performance: ★	▪ Install multi-layer Subtitle C cap over former holding pit area. ▪ Obtain and maintain TSD permit for site	▪ Routine, accepted method for addressing on-site, above-ground wastes at TSD facilities ▪ Moderate design and monitoring ▪ Minimal risk for off-site liability	▪ TSDF permitting required ▪ Long term liability that may require additional closure action when site is sold or transferred ▪ Deed restriction required	▪ $200K per acre for cap ▪ Unknown, but likely high cost of permitting facility ▪ Total potential cost = **$50K to $150K**

Remediation Technology Evaluation Matrix
Former Sludge Holding Pit - Campbells Soup Company, Napoleon, Ohio

On-Site Engineered Landfill Cost: $$$ Performance: ★	■ Construct liner and leacheate collection systems ■ Excavate/stockpile overlying soils ■ Excavate contaminated soils and place in landfill ■ Return stockpiled soils to excavation, regrade and vegetate ■ Construct cap on landfill ■ Operate/Monitor leacheate collection system ■ Obtain/maintain TSD permit.	■ Accepted method for addressing ongoing waste disposal at TSD facilities	■ TSDF permitting required ■ Long term liability that will require additional closure action ■ Deed restriction required ■ Not generally applicable for small-quantity generators or sites with accumulated wastes. ■ Waste may require treatment to achieve LDR levels prior to disposal	■ $25 to $100/cy of lanfill capacity ■ Additional treatment costs if needed ■ Total potential cost = **$200K to $300K**
In Situ Stabilization Cost: $$$ Performance: ★	■ Excavate/stockpile overlying fill soils ■ Apply grout/polymeric stabilizer to contaminated soil volume using deep soil mixing techniques (twin augers) ■ Return fill soils to treated area, grade and vegetate.	■ *In situ* method, no excavation required, but excavation of fill soil may be advisable for cost purposes. ■ Applicable for most inorganics and SVOCs ■ Relatively rapid construction time	■ Stabilization of VOCs can be difficult ■ Contaminants not destroyed ■ TSDF permitting may be required ■ May be less effective than cap ■ Additional closre activity may be required at later date ■ Deed restriction required	■ $10/cy fill soil excavation and grading ■ $80 to $120/ton for stabilization ■ TSDF permitting costs additional if required ■ Total potential cost = **$150K to $300K**
In Situ Bioremediation (Bioventing) Cost: $$ Performance: ★★	■ Install network of shallow bioventing wells for injection of air/nutrients and extraction of soil vapor ■ Install vapor membrane to increase radial effectiveness ■ Install bioventing equipment including offgas treatment (carbon), extraction pump, injection blower, equipment enclosure and utility piping. ■ Operate systems for 24 months ■ Collect soil borings to verify treatment ■ Remove wells and equipment.	■ Contaminants treated *in situ*, no excavation required ■ Proven technology with above average treatment risk ■ Easily permitted	■ Hetergeneous soil may extend treatment time and limit effectiveness ■ Treatment time may extend beyond 3 years ■ Offgas may require treatment prior to discharge ■ Laboratory and field pilot testing are recommended prior to full-scale treatment	■ $15K laboratory testing ■ $50K for pilot testing and design ■ $10 to $50/cy treatment ■ Total potential cost = **$125K to $200K**

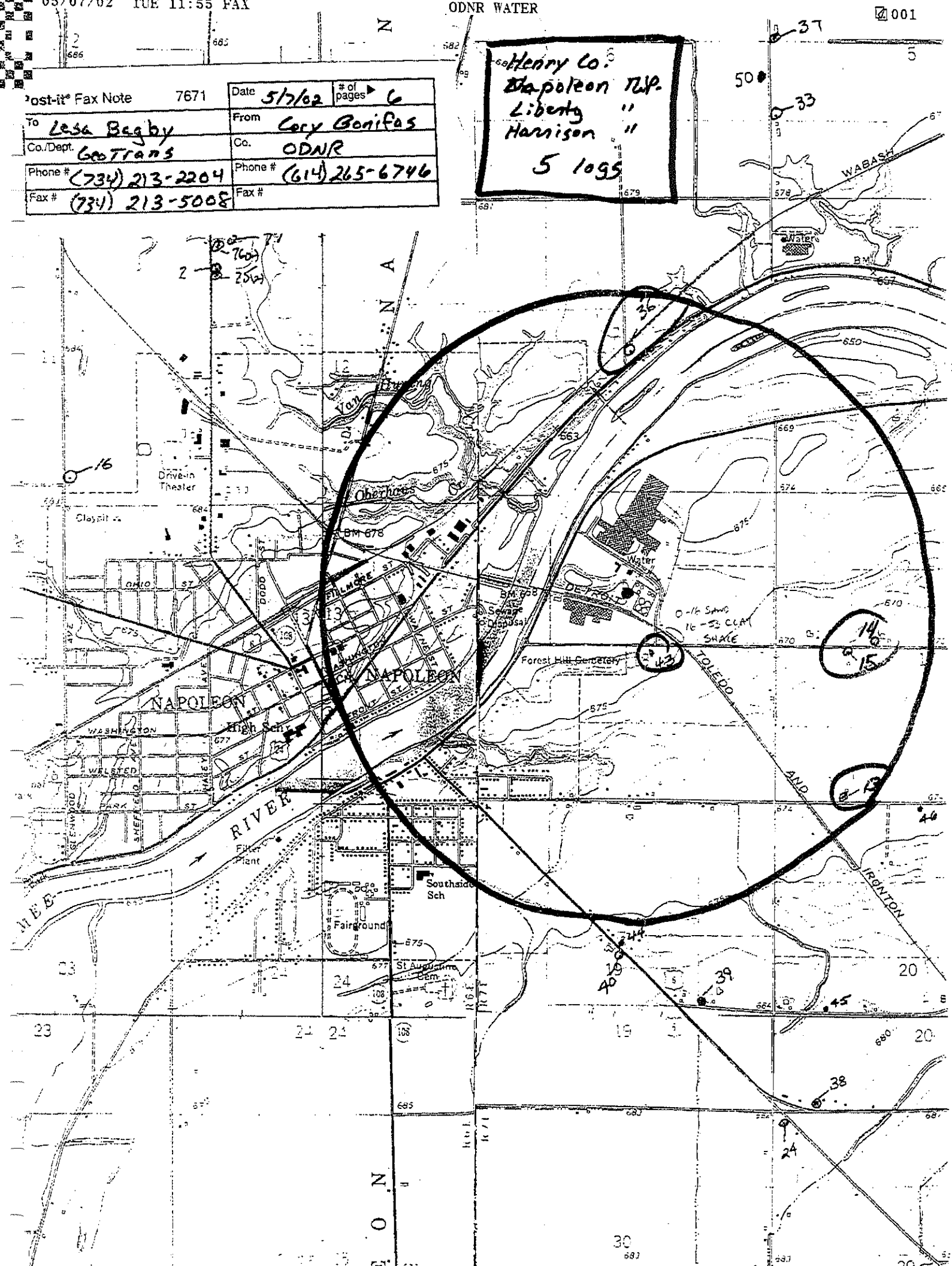
APPENDIX E

APPENDIX E

Local Well Logs

Post-it® Fax Note 7671	Date 5/7/02	# of pages ▶ 6
To Lesa Bagby	From Cory Bonifas	
Co./Dept. GeoTrans	Co. ODNR	
Phone # (734) 213-2204	Phone # (614) 265-6746	
Fax # (734) 213-5008	Fax #	

Henry Co.
Napoleon Twp.
Liberty "
Harrison "
5 1095



WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1500 Dublin Road
Columbus, Ohio

No. 181031

County HENRY Township HARRISON Section of Township SEC-17

Owner RE LEGH MULLET Address RF NAPOLEON OHIO

Location of property 1 mi. S. & River. 1 mile E. of Napoleon 1/4 mi. N. E/S

CONSTRUCTION DETAILS

Casing diameter 4 1/4 Length of casing 60-

Type of screen Length of screen

Type of pump Deep well jet.

Capacity of pump 5 GPM

Depth of pump setting 50 ft.

Date of completion 4-29-57

BAILING OR PUMPING TEST

Pumping rate 14 G.P.M. Duration of test 2 hrs.

Drawdown 25 ft. Date 4-29-7

Developed capacity 14 G.P.M.

Static level—depth to water 23 ft. ft.

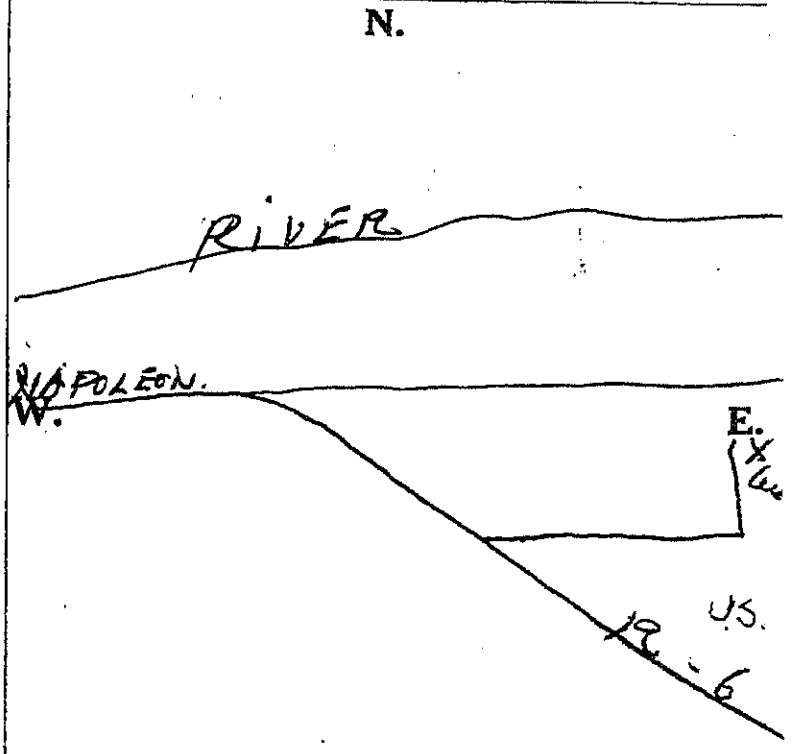
Pump installed by Owner

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
yellow Clay	0 Feet	15 Ft.
Grey Clay	15	35
Gravely blue clay	35	44
Sand	44	54
Sand & water	54	60

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Carl Spitnale Date 4-29-7

Address Continental Signed Carl Spitnale

LOCATED

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WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

Nº 152459

County Henry Township Harrison Section of Township ~~or Lot Number~~ 17

Owner Weathorn James Address Rt 5 Napoleon, O

Location of property On Co Road P-3, 1 mi E of Maumee R

CONSTRUCTION DETAILS	PUMPING TEST
	BAILER CAP - 7 GPM
Casing diameter 4 Length of casing 62	Pumping rate 3 G.P.M. Duration of test 2 hrs.
Type of screen Length of screen	Drawdown 20 ft. Date 10-31-55
Type of pump	Developed capacity 180 GPH
Capacity of pump	Static level—depth to water 21 ft.
Depth of pump setting	Pump installed by

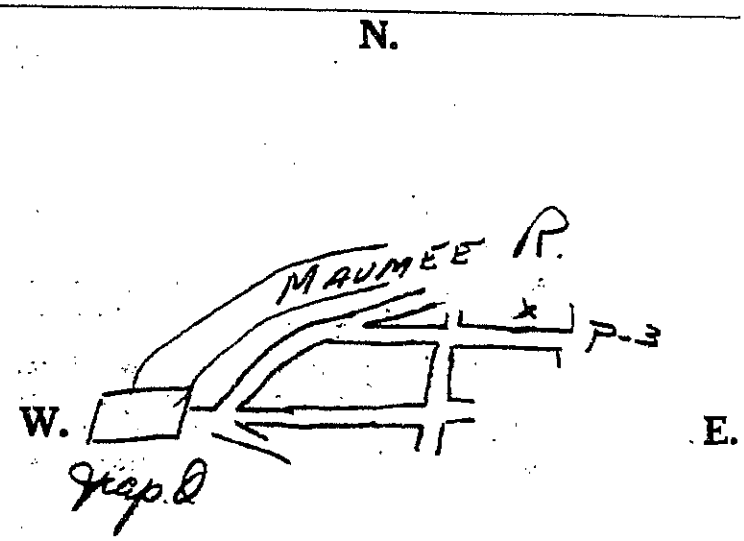
WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	58 Ft.
Sand & Gravel	58	64
Bl Shale	64	96

Water at 62' - above rock
90'
96'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Jules Blitz Date 11-1-55

Address Napoleon, O Signed Jules Blitz

LOCATED

ORIGINAL

X = 1,563,000 ± 3000
Y = 632,500N

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 115422

County Henry Township Harrison Section of Township ~~or Lot Number~~ 17

Owner Frank C Hickey Address Rt #5 Napoleon, O

Location of property 2 mi E, Napoleon, O on #15 Road

CONSTRUCTION DETAILS

Casing diameter 5 5/8" Length of casing 53'

Type of screen ____ Length of screen ____

Type of pump ____

Capacity of pump ____

Depth of pump setting ____

PUMPING TEST

Bailer Capacity

Pumping rate 6 G.P.M. Duration of test 1 hrs.

Drawdown 6 ft. Date 6-28-54

Developed capacity 250 GPH

Static level—depth to water 30 ft.

Pump installed by ____

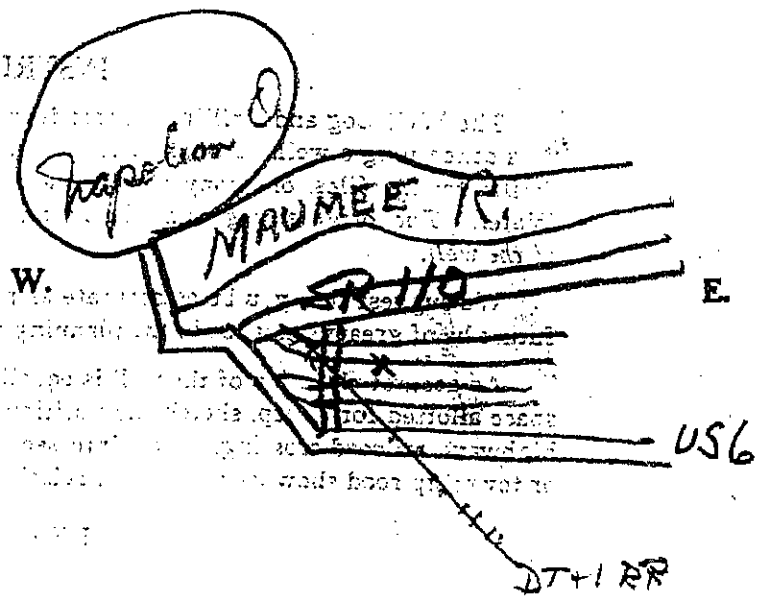
WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sand	0 Feet	20 Ft.
Clay	20	44
Gravel	44	46
Clay	46	53
Sand & Gravel	53	

Water in Sand @ 53'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Jules W Blatz

Address Napoleon, Ohio

Date 6-29-54

Signed Jules W Blatz

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LOCATED

WE[illegible] LOG AND DRILLING REP[illegible]RT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

№ 309451

County [illegible] Township ~~Napoleon~~ Harrison Section of Township 31

Owner [illegible] Westhoven Address Napoleon

Location of property mile and ¼ north east of Napoleon

CONSTRUCTION DETAILS

Casing diameter 4¼ Length of casing 53

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 8 G.P.M. Duration of test 1 hrs.

Drawdown 25 ft. Date Feb. 6-64

Static level-depth to water 30 ft.

Quality (clear, cloudy, taste, odor) odor

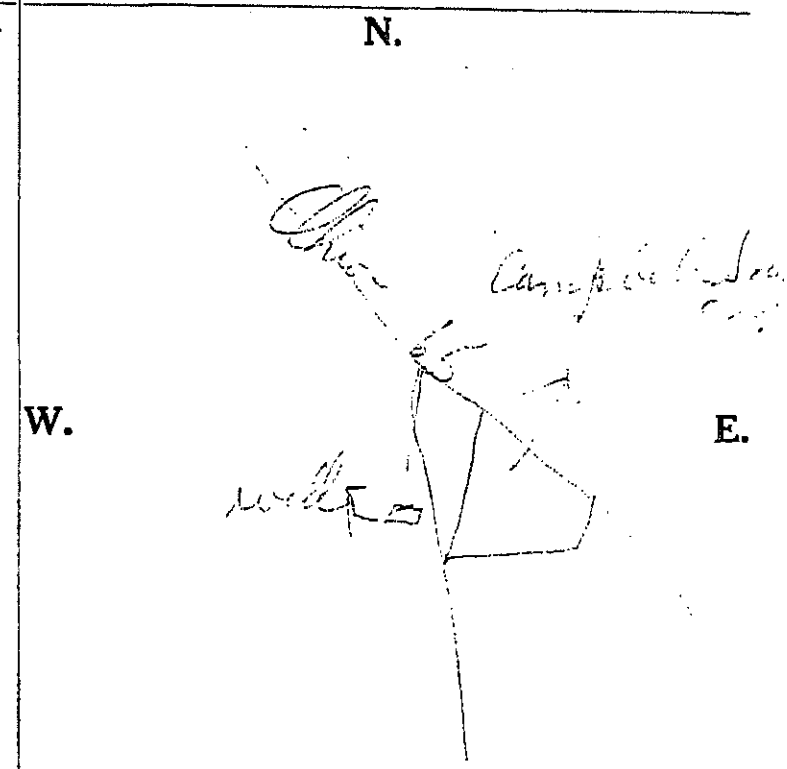
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sand	0 Feet	16 Ft.
Clay?	16	41
Hard Pan	41	53
Shale	53	153

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm [illegible] Date Feb. 6-64

Address [illegible] Signed [illegible]

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WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 152471

County Henry Township Liberty Section of Township or Lot Number 7

Owner Lowell Steward Address Napoleon O

Location of property 1 mi E of Napoleon on US24

CONSTRUCTION DETAILS

Casing diameter 4 Length of casing 48

Type of screen - Length of screen -

Type of pump Windmill

Capacity of pump 250 GPH

Depth of pump setting 50'

PUMPING TEST

Bailer CAP 6 GPM

Pumping rate 5 G.P.M. Duration of test 1 hrs.

Drawdown 21 ft. Date 4-25-56

Developed capacity 300 GPH

Static level—depth to water 31 ft.

Pump installed by driller

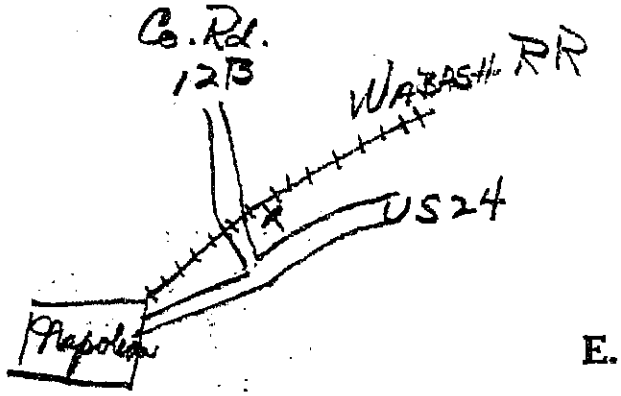
WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sand	0 Feet	10 Ft.
Clay	10	45
Sand	45	48
L. Shale	48	60
Gr. Shale	60	69

Water at 48'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



S.

See reverse side for instructions

Drilling Firm Jules W. Blatt

Address Napoleon, O

Date 4-26-56

Signed Jules Blatt

LOGGED

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APPENDIX F

APPENDIX F

Historic Geotechnical Data

1810 North 12th Street
P.O. Box 2186
Toledo, Ohio 43603
(419) 241-7175
Fax # (419) 241-1808

Registered Engineers, Chemists and Geologists

William F. Boyle, president
Thomas R. Uhler, P.E., vice president Technical Services
Richard L. Johnson, P.E., chief Geotechnical Division

Founded in 1927

Toledo Testing Laboratory, Inc.

December 12, 1989

Mr. D.R. Junge
Project Engineer
Campbell Soup Company
P.O. Box 311
Napoleon, Ohio 43545

RE: SOIL INVESTIGATION
EXPANSION OF WATER AND
WASTEWATER FACILITIES
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO
P.O. NO. 004-010494
T.T.L. JOB NO. DR-11237

Dear Mr. Junge:

This letter report presents the results of a soil boring investigation performed at the above referenced project. The site of the proposed development is located within the limits of the existing Campbell Soup Facility in Napoleon, Ohio. The purpose of this investigation is to determine the physical characteristics of the subsoils at the site. The test borings were drilled at the location shown on the Test Boring Location Plan, Plate 1.

On November 28 through 30, 1989, a field investigation consisting of nine test borings was performed at the site by our drilling personnel. The test borings were drilled with a truck mounted, rotary drilling rig, utilizing four inch diameter solid stem augers to a depth of 30.0 feet below the ground surface. Soil samples were taken at 2.5 and 5.0 foot intervals.

Soil samples were obtained by the Standard Penetration Test Method (ASTM D 1586) which consists of driving a two inch outside diameter split-barrel sampler into the soil with a 140 pound weight falling freely through a distance of thirty inches. The sampler is driven in three successive six inch increments with the number of blows per each increment being recorded. The number of blows required to advance the sampler the last twelve inches is termed the Standard Penetration Resistance (N) and is presented on the individual Logs of Test Boring. The split-barrel sampler contained a 1.375 inch inside diameter and three inch long liner

Toledo Testing Laboratory

Mr. D.R. Junge
Campbell Soup Company
Napleon, Ohio 43545

insert. All soil samples obtained with the split-barrel sampler were sealed in glass jar containers and kept by a representative of Campbell Soup Company.

Soil conditions encountered in the test borings have been evaluated and are presented in the form of Logs of Test Boring, Figures 1 through 20. In addition, the boring logs present information relating to sample data, standard penetration test results, water conditions observed in the borings, personnel involved and other pertinent data. It should be noted that the logs included with this report have been prepared on the basis of field logs of the soils encountered.

Based on the results of the field and laboratory investigation, the subsurface conditions appear to be generally uniform. The site is blanketed with topsoil or crushed stone about 2.0 inches to 3.5 feet thick. Underlying the surface materials in Test Boring Numbers 1, 5, 8 and 9 is a fill layer of medium stiff to stiff brown to grey to black silty clay with some sand or loose to medium dense brown clayey sand to silty sand with some gravel which was found down to 2.0 to 8.5 foot depth. Below the surface materials and fill soils in all test borings is a native cohesive stratum of soft to hard brown to brown and grey silty clay to clayey silt with varying amounts of sand and gravel and occasional silt and sand seams which was encountered down to 12.0 to 23.5 foot depth. Beneath this stratum and extending throughout the remainder of each test boring is a deposit of stiff to very hard grey silty clay to clayey silt with varying amounts of sand and gravel and occasional silt and sand seams.

Groundwater seepage readings were recorded in Test Boring Numbers 7 and 9 at a 7.5 to 23.0 foot depth at the time of the drilling operations. Twenty-four hour water level readings were recorded in Test Boring Numbers 4 and 5 at a 0.5 to 12.0 foot depth. All other test borings were found dry upon completion of the drilling operations.

Experience indicates that the actual subsurface conditions at a site could vary from those shown on the Logs of Test Borings made at specific locations. Toledo Testing Laboratory is not responsible for any interpretations or conclusions concerning the subsurface conditions made by others based upon this report.

Toledo Testing Laboratory

Mr. D.R. Junge
Campbell Soup Company
Napleon, Ohio 43545

December 12, 1989
T.T.L. Job No. DR-11237
Page: 3

Soil samples collected during this investigation will be stored at our laboratory for a period of ninety days from the date of this report. The samples will be discarded after this time unless you request that the samples be saved or delivered to you.

It is hoped that the data presented herein is sufficient to fulfill your present requirements. Should you have any questions or require additional information, please contact our office.

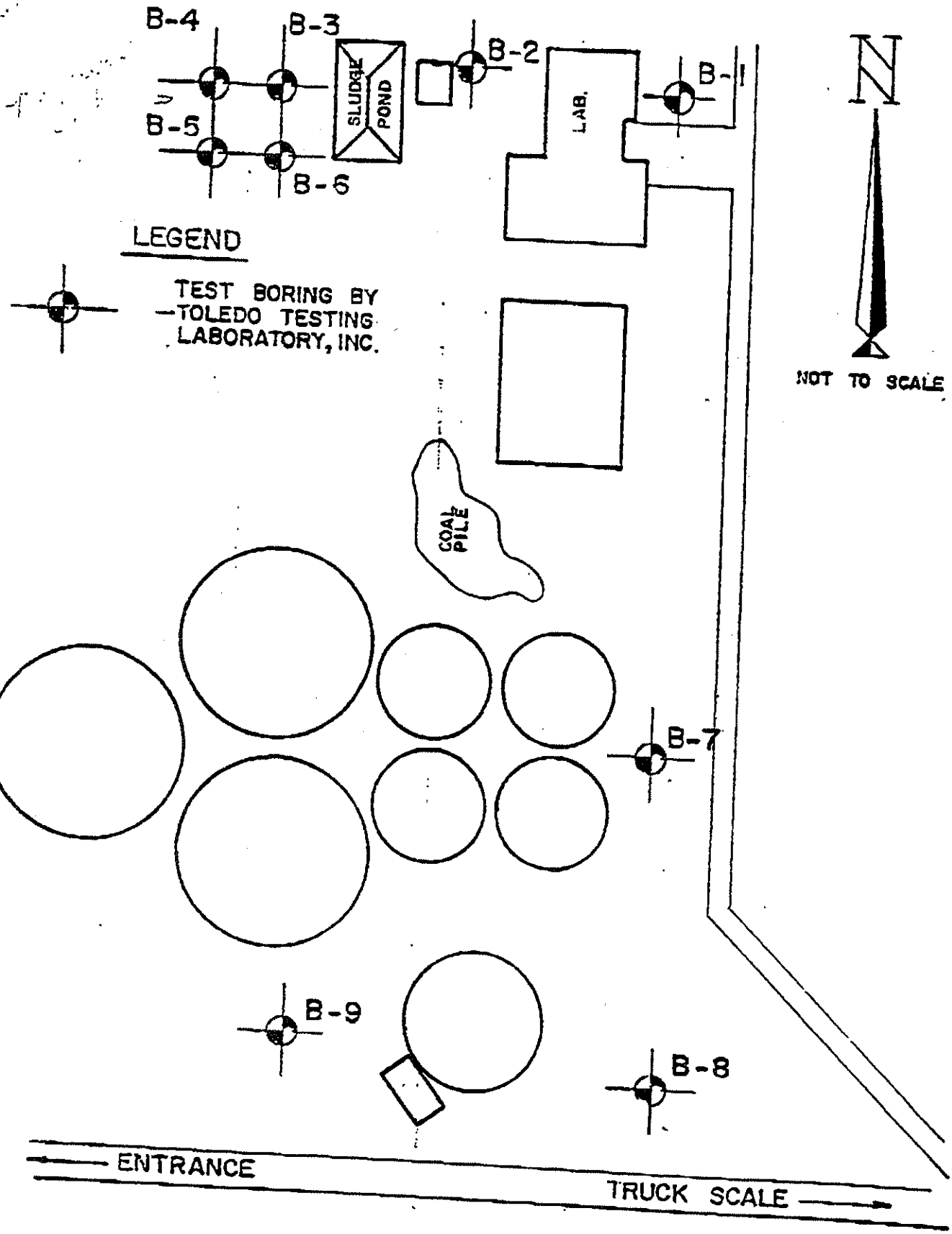
Very truly yours,

TOLEDO TESTING LABORATORY, INC.
Ernest C. Enrique, M.S., E.I.T.
Geotechnical Engineer

Richard L. Johnson

Richard L. Johnson, P.E.
Chief Geotechnical Engineer

RLJ/ECE/dmr



TEST BORING LOCATION PLAN

JOB NUMBER: DR 11237

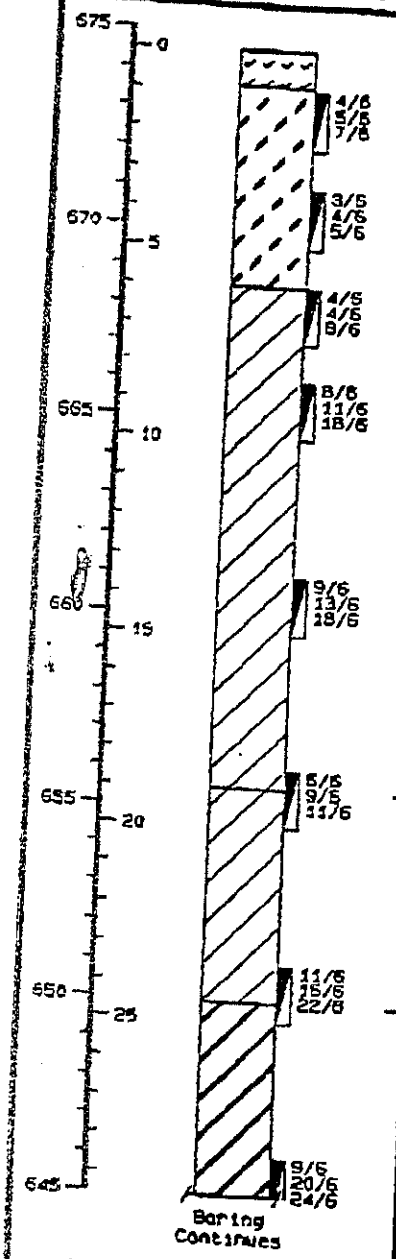
LOG OF TEST BORING

BORING 1

PROJECT: OR-11237
BORING NO.: 1
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: DRY
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/28/89
ELEV.: 674.5

DRILLERS: J.M./G.M.
COMPLETION: DRY
WAS:



Description	Moist. %	Density pcf	Compressive Strength psf
Topsoil (10 inches thick)			
Medium stiff to stiff brown to grey to black silty clay with some sand (possible fill)			
Stiff to hard brown to brown and grey silty clay with trace to little sand and gravel			
Stiff to very stiff grey silty clay with trace to little sand and gravel			
Hard to very hard grey silty clay to clayey silt with little to some sand and gravel			

(1) symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 1

LOG OF TEST BORING

BORING 1

PROJECT: DR-11237
BORING NO.: 1
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45. 4" SSA
ENCOUNTERED WATER DEPTH: DRY
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/28/89
ELEV.: 674.5

DRILLERS: J.M./G.M.
COMPLETION: DRY
WAS:

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
645 / 30					

(1) Symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.
SB-8

Figure Number 2

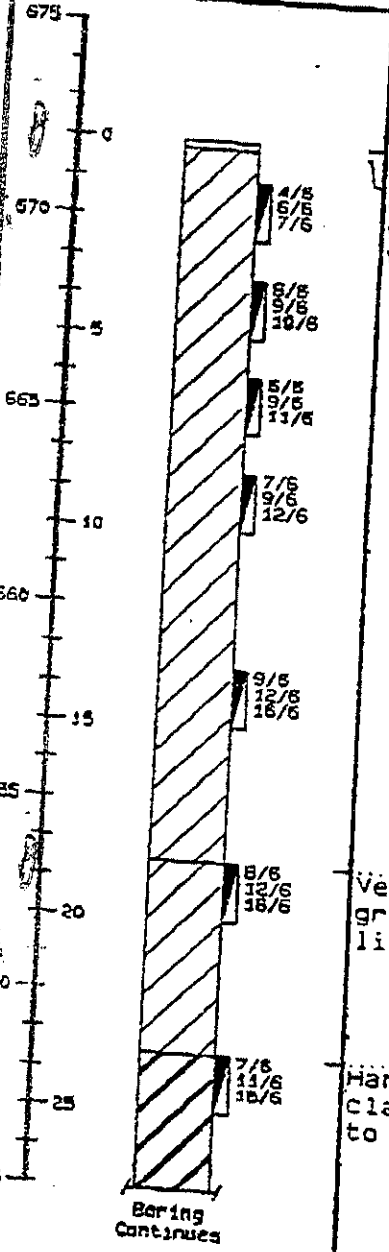
LOG OF TEST BORING

BORING 2

PROJECT: DR-11237
BORING NO.: 2
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: DRY
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/28/89
ELEV.: 672.0

DRILLERS: J.M./G.M.
COMPLETION: DRY
WAS:



Description	Moist. %	Density pcf	Compressive Strength psf
Topsoil (2 inches thick)			
Stiff to very stiff brown to grey silty clay to clayey silt with little to some sand & grvl.			
Very stiff to hard brown and grey silty clay with trace to little sand & gravel			
Hard to very hard grey silty clay to clayey silt with little to some sand and gravel			

(1) Symbol indicates the depth of caving

Figure Number 3

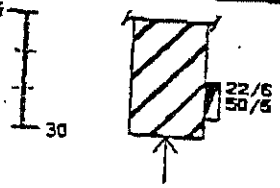
LOG OF TEST BORING

BORING 2

PROJECT: DR-11237
BORING NO.: 2
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: DRY
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/28/89
ELEV.: 672.0

DRILLERS: J.M./G.M.
COMPLETION: DRY
WAS:

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
645					
30					

(1) Symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

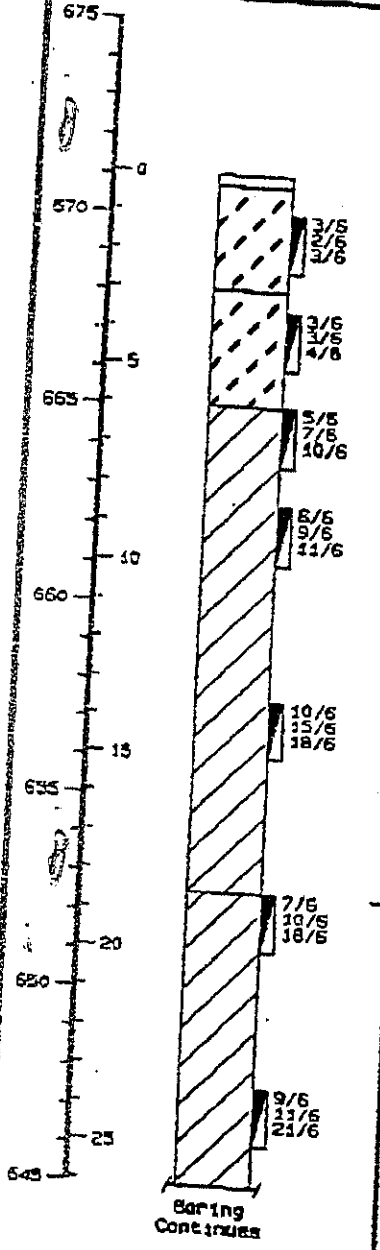
Figure Number 4

LOG OF TEST BORING

BORING 3

PROJECT: DR-11237
BORING NO.: 3
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: DRY
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/29/89
ELEV.: 671.1
DRILLERS: J.M./G.M.
COMPLETION: DRY
WAS:



Description	Moist. %	Density pcf	Compressive Strength psf
Topsoil (3 inches thick)			
Medium stiff brown sandy clay			
Medium stiff brown and grey clayey silt with some sand			
Stiff to very stiff brown and grey silty clay w/little sand & gravel & occ. silt seams			
Very stiff to hard grey silty clay w/little sand & gravel & occ. silt seams			

(1) Symbol indicates the depth of caving

Figure Number 5

LOG OF TEST BORING

BORING 3

PROJECT: DA-11237
BORING NO.: 3
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: DRY
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/29/89
ELEV.: 671.1

DRILLERS: J.M./G.M.
COMPLETION: DRY
WAS:

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
645	32/6 50/6				
30					

(1) symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 6

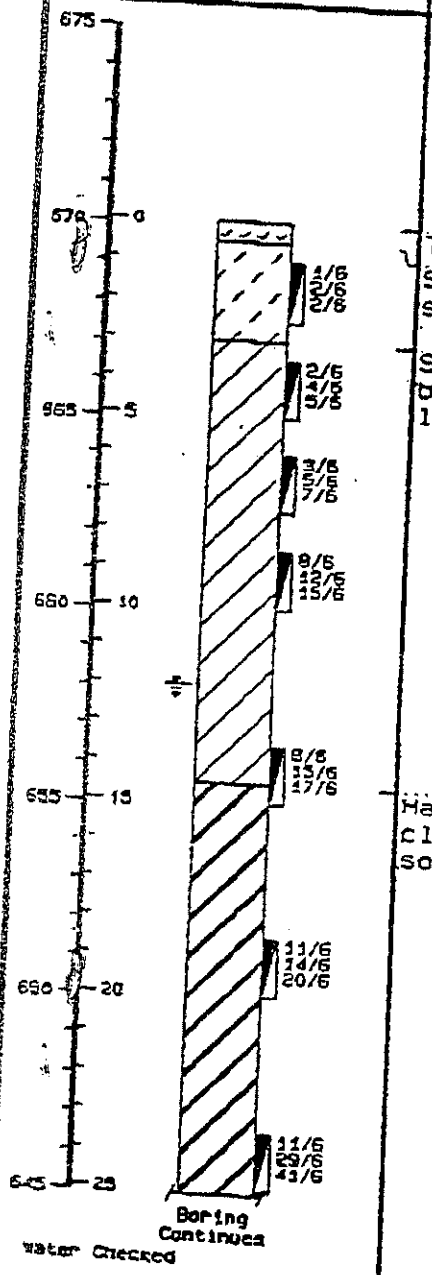
LOG OF TEST BORING

BORING 4

PROJECT: OR-11237
BORING NO.: 4
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: WET SEAM @ 7'0"
DEPTH OF WATER WHEN CHECKED ON: 11/29/89

DATE: 11/29/89
ELEV.: 670.1

DRILLERS: T.D./G.M.
COMPLETION: DRY
WAS: 12'0"



Description	Moist. %	Density pcf	Compressive Strength psf
Topsoil (6 inches thick)			
Soft brown silty clay with some gravel			
Stiff to very stiff brown to brown and grey silty clay with little sand and gravel			
Hard to very hard grey silty clay to clayey silt w/little to some sand & gravel & silt seams			

(1) Symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 7

LOG OF TEST BORING

BORING 4

PROJECT: DR-11237
BORING NO.: 4
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: WET SEAM @ 7'0"
DEPTH OF WATER WHEN CHECKED ON: 11/29/89

DATE: 11/29/89
ELEV.: 870.1

DRILLERS: T.D./G.M.
COMPLETION: DRY
WAS: 12'0"

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength ps
845	17/6 28/6 50/3				
30					

(1) Symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 8

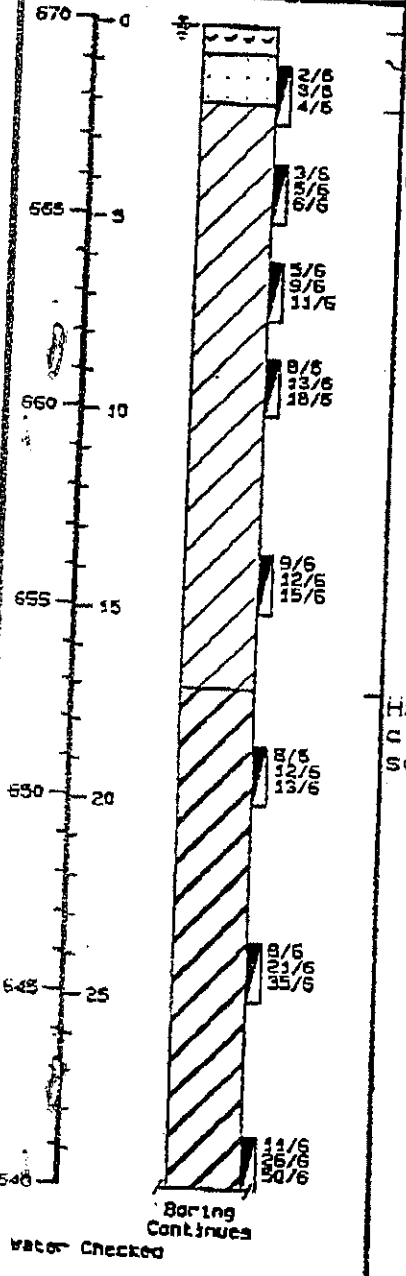
LOG OF TEST BORING

BORING 5

PROJECT: DR-11237
BORING NO.: 5
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: WET SEAM @ 15'0"
DEPTH OF WATER WHEN CHECKED ON: 11/29/89

DATE: 11/29/89
ELEV.: 669.9

DRILLERS: T.D./G.M.
COMPLETION: DRY
WAS: 0'6"



Description	Moist. %	Density pcf	Compressive Strength psf
Topsoil (8 inches thick)			
Loose brown silty sand			
Stiff to very stiff brown to brown and grey silty clay to clayey silt w/little sand			
Hard to very hard grey silty clay to clayey silt w/little to some sand & gravel & silt seams			

(1) symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 9

LOG OF TEST BORING

BORING 5

PROJECT: DR-11237
BORING NO.: 5
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: WET SEAM @ 15'0"
DEPTH OF WATER WHEN CHECKED ON: 11/29/89

DATE: 11/29/89
ELEV.: 669.9
DRILLERS: T.D./G.M.
COMPLETION: DRY
WAS: 0'6"

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
640 — 30					

(1) symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

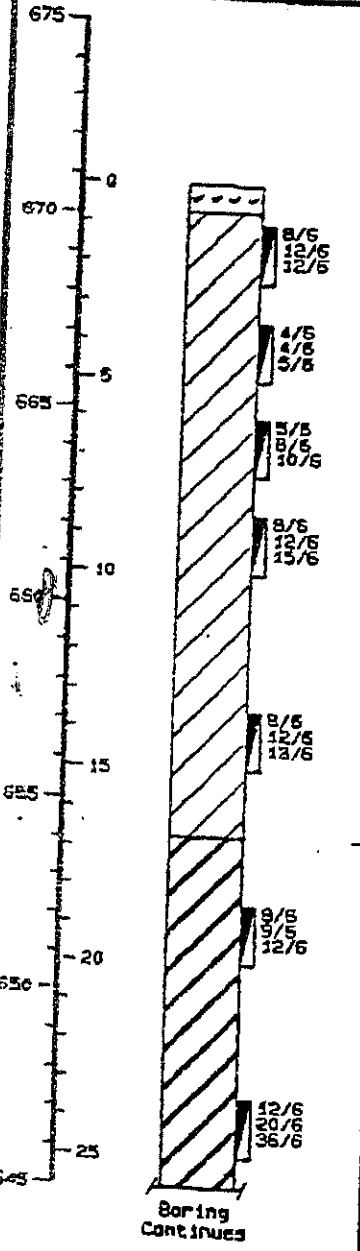
Figure Number 10

LOG OF TEST BORING

BORING 6

PROJECT: DR-11237
BORING NO.: 6
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: DRY
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/29/89
ELEV.: 670.8
DRILLERS: T.O./G.M.
COMPLETION: DRY
WAS:



Description	Moist. %	Density pcf	Compressive Strength psf
Topsoil (8 inches thick)			
Stiff to very stiff brown to brown and grey silty clay to clayey silt w/little sand			
Hard to very hard grey silty clay to clayey silt w/little sand & occ. silt and sand seams			

(1) Symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 11

LOG OF TEST BORING

BORING 6

PROJECT: DR-11237
BORING NO.: 6
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: DRY
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/29/89
ELEV.: 670.8

DRILLERS: T.O./G.M.
COMPLETION: DRY
WAS:

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
645	11/6 26/6 39/6				
30					

(1) symbol indicates the depth of caving

Figure Number 12

LOG OF TEST BORING

BORING 7

PROJECT: DR-11237
BORING NO.: 7
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: 23'0"
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/30/89
ELEV.: 670.2

DRILLERS: J.M./G.M.
COMPLETION: 28'0"
WAS:

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
675 / 0					
670 / 5	8/6 15/6 21/6	Crushed stone (3'6" thick)			
665 / 10	10/6 17/6 24/6	Hard brown to brown and grey silty clay with trace to litte sand & occ. silt and sand seams			
660 / 15	9/6 16/6 22/6				
655 / 20	9/6 16/6 24/6				
650 / 25	7/6 13/6 17/6	Hard to very hard grey silty clay with trace to litte sand and gravel			
645	7/6 11/6 17/6				
	Boring Continues				

(1) symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 13

LOG OF TEST BORING

BORING 7

PROJECT: DR-11237
BORING NO.: 7
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: 23'0"
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/30/89
ELEV.: 670.2

DRILLERS: J.M./G.M.
COMPLETION: 28'0"
WAS:

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
645	23/6 50/6				
30					

(1) Symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 14

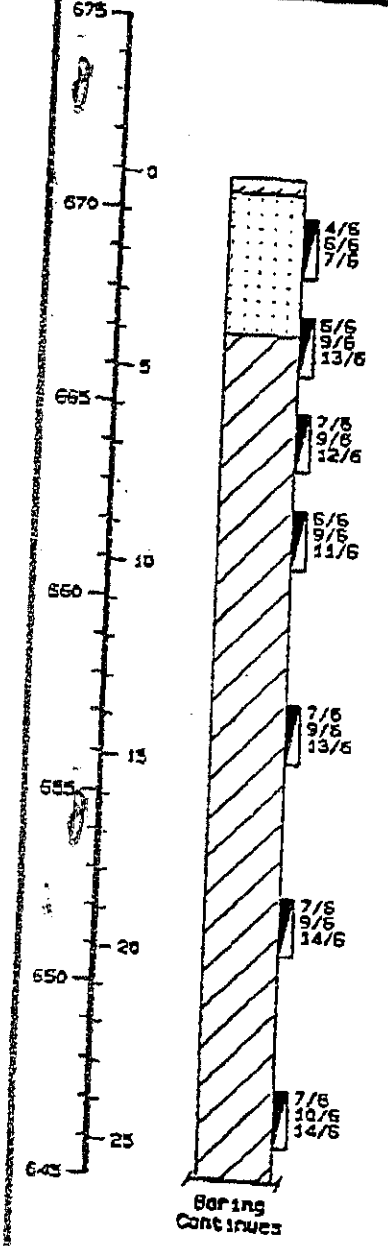
LOG OF TEST BORING

BORING 8

PROJECT: OR-11237
BORING NO.: 8
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: WET SEAM @ 3'6"
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/30/89
ELEV.: 670.9

DRILLERS: J.M./G.M.
COMPLETION: DRY
WAS:



ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
		Topsoil (4 inches thick)			
		Fill: Medium dense brown clayey sand			
		Stiff to hard grey silty clay with trace to little sand and gravel & occ. silt seams			

(1) Symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 15

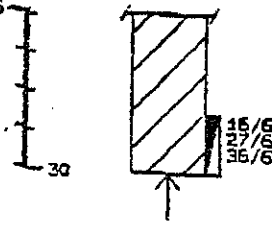
LOG OF TEST BORING

BORING 8

PROJECT: DR-11237
BORING NO.: 8
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: WET SEAM @ 3'6"
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/30/89
ELEV.: 670.9

DRILLERS: J.M./G.M.
COMPLETION: DRY
WAS:

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
645					

(1) symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 16

LOG OF TEST BORING

BORING 9

PROJECT: DR-11237
BORING NO.: 9
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: 7'6"
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/30/89
ELEV.: 676.8
DRILLERS: J.M./G.M.
COMPLETION: 24'0"
WAS:

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
676.8 / 0	6/6 7/6 8/6	Topsoil (4 inches thick) Fill: Medium dense brown clayey sand with some gravel			
675 / 5	5/6 11/6 13/6				
670 / 10	7/6 6/6 7/6				
	7/6 10/6 17/6	Very stiff brown and grey silty clay with trace to little sand and gravel			
665 / 15	7/6 11/6 13/6	Hard grey silty clay with trace to little sand and gravel			
660 / 20	7/6 11/6 15/6				
655 / 25	11/6 15/6 18/6				
650	Boring Continues				

(1) Symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 17

LOG OF TEST BORING

BORING 9

PROJECT: DA-11237
BORING NO.: 9
BORING LOCATION: SEE BORING LOCATION PLAN
DRILL METHOD: CME 45 4" SSA
ENCOUNTERED WATER DEPTH: 7'6"
DEPTH OF WATER WHEN CHECKED ON:

DATE: 11/30/89
ELEV.: 675.8

DRILLERS: J.M./G.M.
COMPLETION: 24'0"
WAS:

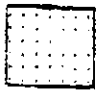
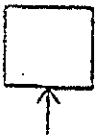
ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	Description	Moist. %	Density pcf	Compressive Strength psf
650	10/6 14/6 21/6				
30					

(1) Symbol indicates the depth of caving

Toledo Testing Laboratory, Inc.

Figure Number 18

Legend:

Symbol:	Description:	Symbol:	Description:
	Topsoil (4 inches thick)		
	Medium stiff brown and grey clayey silt with some sand		
	Very stiff brown and grey silty clay with trace to little sand and gravel		
	Hard grey silty clay with trace to little sand and gravel		
	Soft brown silty clay with some gravel		
	Loose brown silty sand		
	Crushed stone (3'6" thick)		
	Fill: Medium dense brown clayey sand with some gravel		
	Standard penetration test. 140 lb. hammer dropped 30"		Water measured at time indicated
	Rig refusal end of boring		

Notes:

1. Exploratory borings were drilled on November 28 through 30, 1989, 4-inch diameter solid stem augers.
2. Groundwater seepage readings recorded at the time of the drilling operations is presented on the respective log of test boring.
3. Boring locations were drilled at the locations shown on the Test Boring Location Plan, Plate 1. Test boring elevations were obtained using the finished floor elevation (El. 677.5) as a

Notes:

Benchmark.

Project No. OR-11237

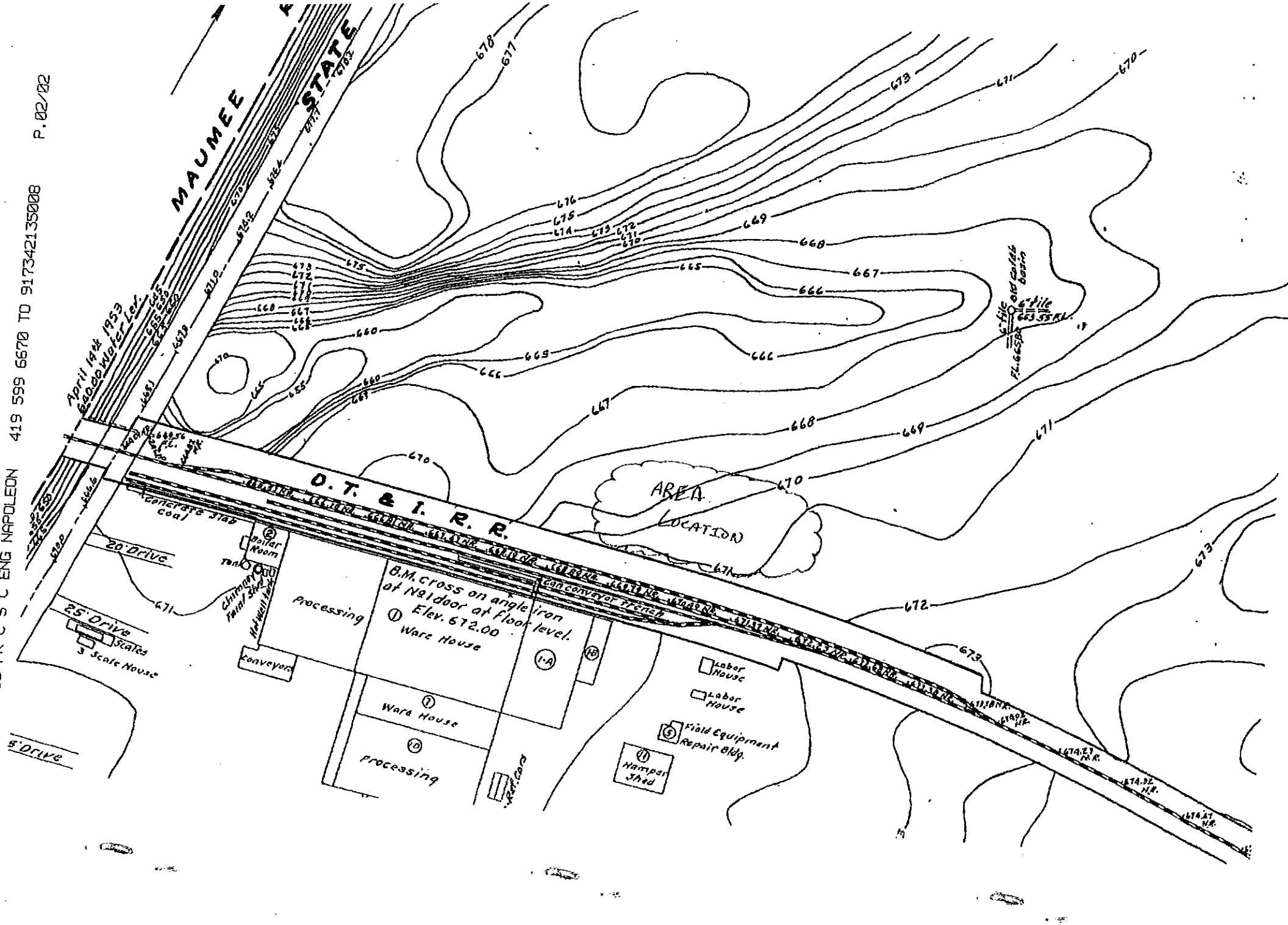
Toledo Testing Laboratory, Inc.

Figure Number 20

SB-28

APPENDIX G

APPENDIX G
Historic Topographic Information



P.02/02
419 599 6670 TO 917342135008
ENG NAPOLEON

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

DMWM - HW

DHWM Storage
Box No. 91

SHALLOW GROUNDWATER REPORT

FORMER HOLDING PIT UNIT

CAMPBELL SOUP SUPPLY COMPANY
NAPOLEON, OH

SEPTEMBER 25, 2002

GeoTrans, Inc.
A TETRA TECH COMPANY

710 Avis Drive Ann Arbor, MI 48108
734-213-2204 FAX 734-213-5008

SHALLOW GROUNDWATER REPORT

FORMER HOLDING PIT UNIT

CAMPBELL SOUP SUPPLY COMPANY
NAPOLEON, OH

RECEIVED
SEP 26 2002
OHIO E.P.A.
N.W.D.O.

Prepared for:

CAMPBELL SOUP SUPPLY COMPANY
EAST MAUMEE AVENUE
NAPOLEON, OH

Prepared by:

GeoTrans, Inc.
710 Avis Drive
Ann Arbor, Michigan 48108

SEPTEMBER 25, 2002

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CONCLUSIONS 4

LIST OF FIGURES AND APPENDICES (FOLLOWING TEXT)

FIGURE 1 PROBE BORING AND MONITORING WELL LOCATION MAP

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APPENDIX B ANALYTICAL REPORT

SHALLOW GROUNDWATER REPORT

On August 1, 2002, the Ohio Environmental Protection Agency (Ohio EPA) approved, with modifications, the *RCRA Site Closure Plan, Former Holding Pit Unit,* (Closure Plan), dated May 24, 2002, for the Campbell Soup Supply Company in Napoleon, Ohio. The Ohio EPA modification #6 states "Section 8, Schedule for Closure. The revised closure plan is hearby modified to state all information gathered during the shallow groundwater investigation shall be submitted to the Ohio EPA, NWDO within 30 days of the installation of the last monitoring well." This report is intended to satisfy modification #6 of the Closure Plan.

On August 26 and 27, 2002, the third phase of field work for the site closure of the former holding pit was completed at the Campbell Soup Supply Company's Napoleon, Ohio, Plant. During this field work three monitoring wells were installed to determine whether shallow groundwater had been impacted by the soils contained in the elevated area.

All of the field work completed was conducted in general agreement with the Closure Plan. GeoServ, Inc. of New Hudson, Michigan, performed the subsurface fieldwork using a track-mounted drill rig equipped with direct-push and hollow-stem auger equipment. John Weaver and James Mosely, representatives from the Ohio EPA, were present on August 26, 2002, to observe the fieldwork.

Direct-push sampling techniques were used to collect the fourth of four soil samples required to characterize the contaminated soil for waste disposal. The sample was collected from a continuous soil sample from 1-6 feet below surface grade (bsg) near PB-02-28. The sample was screened with the photo-ionization detector (PID) and prepared for composite sampling. The composite sample was obtained from a mixture of three discrete samples collected from 3-4 feet bsg, 4-5 feet bsg and 5-6 feet bsg. This composite sample was sent to the TTMPS laboratory of Ann Arbor, Michigan, for TCLP analysis.

Direct-push sampling techniques were used to collect continuous soil samples required to determine the horizontal extent of soil contaminated with VOCs beyond the limits of the elevated area. Two borings were completed at five soil sampling locations around the mound, as depicted in Figure 1. The intent of installing two borings at each location was to ensure that horizontal extent of contamination was adequately delineated.

The primary boring at each location was terminated at 20 feet bsg. The secondary boring was installed farther away from the holding pit, and terminated at a depth of 5 feet. Soil samples collected from each boring were field screened using a PID at two-foot intervals, or when visual and olfactory observations suggested additional screening. Lithological descriptions and the results from the PID field screening were recorded for each soil boring and are summarized in the attached soil boring logs (Appendix A).

Three distinct soil horizons were characterized based on the soil samples retrieved at the borings. The upper horizon consists of a brown clay fill with varying amounts of silt from the surface to approximately 4.5 to 8 feet bsg. The second horizon is orange brown, dry, clay till that extends to approximately 12 to 16.5 feet bsg. The third horizon is gray, damp to moist clay till that extends to the termination of the borings at 20 feet bsg. The PID did not detect the presence of VOCs in any of the soil samples tested.

Because the PID did not detect the presence of VOCs in any of the screened soil samples, the soil samples selected for laboratory analyses were chosen on the basis of depth. The upper soil samples were collected from 4.5 to 5 feet bsg from both borings at each location. A third sample was collected at each location from 19.5 to 20 feet bsg in the primary soil boring. A total of 15 samples, three from each location, were collected and submitted to the laboratory for analyses. Each soil sample was preserved in the field with five-gram Encore™ sample devices. Three replicate 5-gram Encore™ samples were collected from each soil sample interval. The 15 soil samples were dropped off at BEC Laboratory of Toledo, Ohio, for analysis of VOCs per EPA method 8260B.

To adequately characterize any affects to shallow groundwater in the natural unconsolidated zone, groundwater-monitoring wells were installed at three of the five soil borings depicted in Figure 1. Following completion of the soil boring used for soil sampling, hollow stem auger drilling techniques were used to install each groundwater monitoring well. Since saturated conditions were not observed in any of the soil borings, each monitoring well was screened from 15 to 20 feet bsg. Each well was constructed of 2-inch diameter schedule-40 PVC casing with 2-inch diameter schedule-40 PVC 10-slot screens. A sand pack was placed in the annular space extending two feet above the screen. The remainder of the annular space was filled with bentonite chips to the surface. The wells were not developed

since groundwater was not present upon completion. All of the top of casing elevations and the surface elevations were determined by level survey at each groundwater monitoring well and soil boring location.

One day after initial completion of the monitoring well installation MW-1 exhibited more than 4 feet of water, MW-3 exhibited 0.2 feet of water, and MW-2 was still dry. MW-1 was bailed dry and monitored for recovery for approximately 10 minutes. MW-1 recovered at an approximate average rate of 0.03 feet per minute, with recovery slowing over time.

On September 9, 2002, two weeks after well installation, each monitoring well was gauged to determine water levels. 14.43 feet of water was observed in MW-1, 6.14 feet of water was observed in MW-2, and 6.71 feet of water was observed in MW-3 (Table 1). Groundwater elevations are presented in Table 1. MW-1 and MW-3 exhibit similar groundwater elevations at 667.17 feet and 666.51 feet above mean sea level (AMSL) respectively. The groundwater elevation at MW-2 was significantly lower at 658.31 feet AMSL. Our preliminary evaluation of the water levels suggest two possibilities for this discrepancy: MW-2 had not fully recharged due the high clay content of soil; or MW-2 is located in separate water bearing unit isolated from MW-1 and MW-3.

MW-1 14.43 MW-2 6.14 MW-3 6.71

TABLE 1

Boring ID	Surface Elevation	Total Depth Elevation	Depth to Water	Top of Casing Elevation	Water Elevation
MW-1	672.74	652.74	8.03	675.2	667.17
MW-2	672.17	652.17	16.21	674.52	658.31
MW-3	679.8	659.8	15.9	682.41	666.51

Groundwater samples were collected from each monitoring well using disposable bailers. Three well volumes were purged prior to collecting the sample from MW-1. MW-2 and MW-3 were purged dry and samples were collected after the well recharged. All of the groundwater samples were submitted to Brighton Analytical, Inc. of Brighton, Michigan. The groundwater samples were analyzed for VOC's per Method 8260B and SVOC's per Method

8270. Copies of the laboratory report are included as Appendix B. VOCs and SVOCs were not detected in any of the groundwater samples.

CONCLUSIONS

Based on the above-described results, we offer the following conclusions:

- Groundwater may be present in low-permeability clays under the site. These clays are incapable of producing usable amounts of water, but can provide water sufficient to sample given adequate recharge time.

- The water levels in the wells suggest that soil coloration may be representative of saturated conditions, but the disparity in water levels suggest that the wells are not hydraulically connected.

- No VOCs or SVOCs have impacted groundwater under the former holding pit.

Groundwater beneath the mound has not been impacted by VOCs or SVOCs, therefore no additional groundwater investigation is warranted at this site.

DRAFT

N

LEGEND

PB-02-57 — PROBE BORING

MW-1 — MONITORING WELL

0.66 / 667.17 - 666.51 = 8.86 / 667.17 - 658.31 / 175'

x

x = 13

flow

OVERHEAD PIPELINES

C/L DITCH

TANK

PB-02-52

MW-2

658.31

PB-02-58

MW-1

666.71

FOUND W.A.S. HUB

PB-02-53

MW-3

666.51

EDGE OF WOODS

INV: 669.75'

8" PLASTIC

INV: 670.15'

BRUSH

CONC.

BM2

6' CHAINLINK WITH BARBED WIRE

PB-02-28

GRAVEL

EFFLUENT CHAMBER

CKBM1

CONC. WALK

PB-02-57

PB-02-56

PB-02-54

PB-02-55

670

671

675

680

685

GeoTrans, Inc.
A TETRA TECH COMPANY

CHECKED: C. Savage DATE: 9/24/02

50 25 0 50 100

SCALE: 1"=50'

SHALLOW GROUNDWATER INVESTIGATION
CAMPBELL SOUP SUPPLY COMPANY
NAPOLEON, OHIO

PROBE BORING AND MONITORING WELL LOCATIONS

FIGURE 1

..CAMPBELL SOUP/CADD/FIGURE1SITESURVEY.DWG 09/24/02 MSK 1

APPENDIX A
BORING LOGS

GeoTrans, Inc. 710 Avis Drive Ann Arbor, MI 48108 Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL #: MW-1

DRILLING CO: GeoServ	LOCATION: West of holding pit area	CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan		GEO JOB#: P896/104
DRILL RIG: Geoprobe	DATE: 8/26/02	SURFACE ELEVATION:
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz	CASING ELEVATION: 675.2
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F	NORTHING / EASTING: 4505.47, 5135.55
SAND PACK INTERVAL: 14-20'	SEAL INTERVAL: Bentonite to surface, hydrated 12-14'	SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): Stick-up	HOLE ABANDONMENT:	GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): 0-15'		HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA): 15-20'; 2" PVC, schedule 40, slot 10		

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
			100%		Topsoil Brown, dry, soft, very fine SAND with CLAY, little medium to coarse Sand - includes roots
		2		0.0	
				0.0	
		4			Red-brown, dry, dense, very fine Sand - becomes brown
Encore sample collected from 4-5' bsg (3 samples)			(15:45)	0.0	Red-brown, dry, stiff, CLAY, greasy, vein of Sand with roots - includes little Silt, mottled, trace medium to coarse Gravel
		6	100%		
				0.0	
		8		0.0	- includes veins of oxidation
				0.0	
		10	(15:50)		
			100%		Red-brown, dry, stiff, CLAY, mottled
		12		0.0	
				0.0	
		14			- becomes grey, damp Grey, damp, soft, CLAY, includes trace medium Sand to coarse Gravel
			(15:55)	0.0	
		16	100%	0.0	
		18		0.0	
Encore sample collected from 19-20' bsg (3 samples)				0.0	Grey, damp, soft, CLAY, includes trace medium Sand to coarse Gravel
		20	(16:20)		

NOTES: EOB @ 20'

GeoTrans, Inc.	710 Avis Drive, Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL #: MW-2
DRILLING CO: GeoServ	LOCATION: West of AST			CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan				GEO JOB#: P896/104
DRILL RIG: Geoprobe	8/26/02			SURFACE ELEVATION:
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz			CASING ELEVATION: 674.52
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F			NORTHING / EASTING: 4774.64, 5391.46
SAND PACK INTERVAL: 14-20'	SEAL INTERVAL: Bentonite to surface, hydrated 12-14'			SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): Stick-up	HOLE ABANDONMENT:			GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): 0-15'				HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA): 15-20'; 2" PVC, schedule 40, slot 10				

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
			80%		6" Grass and Clay till
					Black, damp to moist, loose SAND and SILT and CLAY layers with some cinders - high organic clay layers
		2		0.0	Olive-grey, dry to damp, hard, CLAY with SILT, little fine to medium Sand - trace Gravel
				0.0	
		4			
Encore sample collected from 4-5' bsg (3 samples)			(14:15)	0.0	- last 6" black-dary grey, dry CLAY, with SILT, little Sand, high organic content
			100%		Brown, moist, soft to firm, CLAY and SILT with orange and grey mottles, trace fine to coarse Gravel
		6		0.0	
		8		0.0	Clay will snake to 3/8" and crumbly
					Grey mottles tend to follow micro fractures in the clay
		10	(14:20)	0.0	
			100%		Brown, moist, soft to firm, CLAY and SILT with orange and grey mottles,
		12		0.0	trace fine to coarse Gravel
				0.0	
		14		0.0	
			(14:25)		
		16	100%	0.0	- becomes slightly more orange-brown, less mottled, rusty
					Grey to olive grey, damp, soft to firn CLAy with little Silt, Sand and Gravel
		18		0.0	
Encore sample collected from 19-20' bsg (3 samples)					Clay will snake to 1/4" then quickly falls apart
		20	(14:30)	0.0	

NOTES: EOB @ 20'

GeoTrans, Inc. 710 Avis Drive, Ann Arbor, MI 48108 Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL #: MW-3
DRILLING CO: GeoServ	LOCATION: Northeast of berm	CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan		GEO JOB#: P896/104
DRILL RIG: Geoprobe	DATE: 8/26/02	SURFACE ELEVATION:
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz	CASING ELEVATION: 682.41
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F	NORTHING / EASTING: 4948.41, 5131.53
SAND PACK INTERVAL: 14-20'	SEAL INTERVAL: Bentonite to surface, hydrated 12-14'	SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): Stick-up	HOLE ABANDONMENT:	GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): 0-15'		HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA): 15-20'; 2" PVC, schedule 40, slot 10		

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
			90%		Topsoil Brown, dry, loose, very fine SAND, little coarse Gravel - includes large piece of limestone
		2		0.0	
					Brown, dry, hard, CLAY till, little very fine Sand - 1" layer beige, dry, loose very fine SAND
		4		0.0	
Encore sample collected from 4-5' bsg (2 samples)			(10:30)	0.0	- includes large piece of coal
			100%		
		6			- become soft
				0.0	Brown, moist, soft, CLAY till, little very fine Sand
		8		0.0	
				0.0	- includes no Sand
		10	(10:35)		
			100%		Black, damp, hard CLAY, trace very fine to coarse Sand -includes roots, wood
		12		0.0	-becomes soft, brown Brown, damp, soft, CLAY with grey mottles, greasy
				0.0	
		14		0.0	
			(10:40)		- includes medium to coarse Gravel
			100%		Brown, dry, hard, CLAY with SILT, little medium Sand
		16		0.0	
				0.0	
Encore sample collected from 19-20' bsg (3 samples)		18			
				0.0	Brown, dry, hard, CLAY with SILT, little medium Sand
		20	(11:00)		

NOTES: EOB @ 20'

GeoTrans, Inc.	710 Avis Drive, Ann Arbor, MI 48108	Fax: (734) 213-5008, Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL # : PB-02-28

DRILLING CO: GeoServ	LOCATION: Adjacent to PB-01-28	CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan		GEO JOB#: P896/104
DRILL RIG: Geoprobe	DATE: 8/26/02	SURFACE ELEVATION:
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz	CASING ELEVATION:
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F	NORTHING / EASTING:
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: Native/Bentonite	GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):		

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
Advanced boring from 1-6' bsg Submitted discreet samples from 3-4'; 4-5'; and 5-6' bsg Submitted composite from 3-6' bsg		0 2 4 6 8 10 12 14 16 18 20	90% (10:30)	0.0 0.0 0.0	Topsoil Brown, damp, very fine SAND and SILT, trace Clay, includes roots - includes 1" layer black-brown, very fine SAND, trace silt - includes trace medium to coarse Gravel, trace coarse Sand Brown, dry to damp, hard CLAY, trace very fine to fine Sand Brown, damp, soft, very fine SAND, trace coarse Gravel EOB @ 6'

NOTES:

GeoTrans, Inc. 710 Avis Drive Ann Arbor, MI 48108	Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL # : PB-02-52
DRILLING CO: GeoServ	LOCATION: North side of berm near AST		CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan			GEO JOB#: P896/104
DRILL RIG: Geoprobe	DATE: 8/26/02		SURFACE ELEVATION: 671.97
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz		CASING ELEVATION:
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F		NORTHING / EASTING: 4775.29, 5379.32
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA		SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: Native/Bentonite		GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA			HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):			

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
			80%		Clay topsoil
		2		0.0	Dark brown, moist SILT, SAND and CLAY with slag and roots - includes little Gravel
		4		0.0	Orang-brown, moist SILTY SAND with pockets of Clay, trace Sand and Gravel
Encore sample collected from 4-5' bsg (3 samples)			(15:00)	0.0	Olive grey, moist SAND and SILT, little Clay Olive grey, moist SAND with Silt, little Clay
		6			EOB @ 5'
		8			
		10			
		12			
		14			
		16			
		18			
		20			

NOTES:

GeoTrans, Inc. 710 Avis Drive Ann Arbor, MI 48108 Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL #: PB-02-53
DRILLING CO: GeoServ	LOCATION: 20' East of MW-3	CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan		GEO JOB#: P896/104
DRILL RIG: Geoprobe	DATE: 8/26/02	SURFACE ELEVATION: 679.2
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz	CASING ELEVATION:
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F	NORTHING / EASTING: 4947.5, 5119.63
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: Native/Bentonite	GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):		

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
Encore sample collected from 4-5' bsg (3 samples)		0 2 4 6 8 10 12 14 16 18 20	100% (13:20)	0.0 0.0 0.0	Topsoil Brown, damp, loose, very fine SAND and crushed GRAVEL (limestone) Beige, dry, dense, very fine to medium SAND, trace coarse Gravel Brown, dry, hard, CLAY till, includes little medium Sand to medium Gravel - includes Slag EOB @ 5'

NOTES:

GeoTrans, Inc. 710 Avis Drive Ann Arbor, MI 48108 Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL #: PB-02-54
DRILLING CO: GeoServ	LOCATION: South side near forest	CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan		GEO JOB#: P896/104
DRILL RIG: Geoprobe	DATE: 8/27/02	SURFACE ELEVATION: 672.53
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz	CASING ELEVATION:
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F	NORTHING / EASTING: 4909.28, 47032.45
SAND PACK INTERVAL: NA	SEAL INTERVAL: Bentonite to surface, hydrated 12-14'	SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT:	GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA	NA	

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
			95%		Grass cover, clay roots Brown mottled rusty brown, damp, firm SILT and CLAY with little Sand, trace medium Gravel
		2		0.0	
				0.0	
		4			
Encore sample collected from 4-5' bsg (2 samples)			(8:15)	0.0	
			100%		Brown, mottled, damp, firm, SILT and CLAY, includes 3" layers of Silty Sand and Clay
		6		0.0	
		8		0.0	
					Orange-brown, dry to damp, very firm, CLAY with Silt, trace Sitl and very coarse Sand as float
		10	(8:20)	0.0	
			100%		- becomes grey
		12		0.0	- becomes olive-brown with grey viens
				0.0	
		14			
			(8:25)	0.0	-becomes grey, moist, high Clay content
			100%		
		16		0.0	Grey, moist, soft-firm CLAY with little Silt and Sand, trace Gravel
				0.0	
		18			
Encore sample collected from 19-20' bsg (3 samples)				0.0	
		20	(8:30)		

NOTES: EOB @ 20'

GeoTrans, Inc. 710 Avis Drive Ann Arbor, MI 48108 Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL #.: PB-02-55

DRILLING CO: GeoServ	LOCATION: East of PB-02-54	CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan		GEO JOB#: P896/104
DRILL RIG: Geoprobe	DATE: 8/27/02	SURFACE ELEVATION: 672.97
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz	CASING ELEVATION:
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F	NORTHING / EASTING: 4903.98, 4688.06
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: Native/Bentonite	GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):		

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
		0	90%		Topsoil Black, dry, loose, very fine SAND, trace coarse Sand to fine Gravel
		2		0.0	- becomes brown, damp, includes roots, little Silt Brown, damp, firm, very fine SAND and ILT, includes roots
		4		0.0	Orange-brown, dry, very fine SAND and SILT, includes roots
Encore sample collected from 4-5' bsg (3 samples)			(08:45)	0.0	Grey-brown, dry, dense, mottled CLAY till
		6			EOB @ 5'
		8			
		10			
		12			
		14			
		16			
		18			
		20			

NOTES:

GeoTrans, Inc. 710 Avis Drive, Ann Arbor, MI 48108 Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL #: PB-02-56
DRILLING CO: GeoServ	LOCATION: South side near forest	CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan		GEO JOB#: P896/104
DRILL RIG: Geoprobe	DATE: 8/27/02	SURFACE ELEVATION: 672.16
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz	CASING ELEVATION:
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F	NORTHING / EASTING: 4681.84, 5011.58
SAND PACK INTERVAL: NA	SEAL INTERVAL: Bentonite to surface, hydrated 12-14'	SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT:	GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA: NA		

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
			95%		Brown, dry, dense, CLAY till with little very fine Sand, roots
		2		0.0	- less Sand, brown-grey mottles
				0.0	
		4			
Encore sample collected from 4-5' bsg (2 samples)			(10:00)	0.0	- becomes moist, soft, few pebbles, some Silt
		6	100%		- includes small seam fine to medium SAND
				0.0	Brown to grey, moist, soft SILTY CLAY - includes 1" seams of black, organic-rich staining
		8		0.0	
					Brown to grey, moist, soft SILTY CLAY
		10	(10:25)	0.0	Brown, dry, dense, CLAY till, mottled, includes trace fine to coarse Gravel
			100%		-includes iron staining along fracture down center of core
		12		0.0	
				0.0	- change in color to grey - becomes damp to moist, softer, no Silt
		14			
			(10:30)	0.0	
		16	100%	0.0	Grey, moist, soft, CLAY till, trace Silt
		18		0.0	Grey, moist, soft, CLAY till, trace Silt
Encore sample collected from 19-20' bsg (3 samples)				0.0	
		20	(10.:40)		

NOTES: EOB @ 20'

GeoTrans, Inc. 710 Avis Drive Ann Arbor, MI 48108 Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL #: PB-02-57
DRILLING CO: GeoServ	LOCATION: South of holding pit area	CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan		GEO JOB#: P896/104
DRILL RIG: Geoprobe	DATE: 8/27/02	SURFACE ELEVATION: 671.45
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz	CASING ELEVATION:
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F	NORTHING / EASTING: 4679.08, 5001.49
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: Native/Bentonite	GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):		

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
		0	80%		Brown, dry, hard, CLAY with silt, trace very fine to coarse Sand - includes roots
		2		0.0	
					- becomes mottled -increased Sand content
		4		0.0	
Encore sample collected from 4-5' bsg (3 samples)			(11:00)	0.0	Brown, moist, soft CLAY, little Silt, trace very fine to coarse Sand
		6			EOB @ 5'
		8			
		10			
		12			
		14			
		16			
		18			
		20			

NOTES:

GeoTrans, Inc. 710 Avis Drive, Ann Arbor, MI 48108 Fax: (734) 213-5008 Phone: (734) 213-2204	Page 1 of 1	BORING # / WELL #: PB-02-58
DRILLING CO: GeoServ	LOCATION: West of MW-1	CLIENT/SITE NAME: Campbell Soup Company
DRILLER: Dean Govan		GEO JOB#: P896/104
DRILL RIG: Geoprobe	DATE: 8/26/02	SURFACE ELEVATION: 671.88
PID MODEL & LAMP eV: Photovac 2020	LOGGED BY: M. Racz	CASING ELEVATION:
DEPTH TO WATER (INITIAL, COMPLETION): NA	WEATHER: Sunny, 80°F	NORTHING / EASTING: 4485.94, 5065.06
SAND PACK INTERVAL: NA	SEAL INTERVAL: NA	SAMPLING METHOD: 2" x 5' Macrosampler, continuous
WELL COVER (TYPE/COMPLETION): NA	HOLE ABANDONMENT: Native/Bentonite	GROUT INTERVAL: NA
CASING (INTERVAL, TYPE, DIA.): NA		HOLE DIA: 2"
GROUNDWATER SAMPLE / SCREEN (INTERVAL, TYPE, SLOT SIZE, DIA.):		

SAMPLE FOR ANALYSIS	PENETRATION RESISTANCE	DEPTH	SAMPLE RECOVERY (TIME)	ORGANIC VAPORS (PPM)	LITHOLOGIC DESCRIPTION
Encore sample collected from 4-5' bsg (3 samples)		0 2 4 6 8 10 12 14 16 18 20	90% (12:00)	0.0 0.0 0.0	Topsoil Brown, dry, dense, CLAY with very fine Sand and Silt - becomes grey-brown, increased sand content, trace gravel EOB @ 5'

NOTES:

APPENDIX B
ANALYTICAL REPORT

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05309**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-3 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Acenaphthylene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Anthracene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Benzo(a)anthracene	**Not detected**	ug/L	1	SW846 8270	RG	09/10/02
Benzo(a)pyrene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Benzo(b)fluoranthene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Benzo(ghi)perylene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Benzo(k)fluoranthene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Benzoic acid	**Not detected**	ug/L	50	SW846 8270	RG	09/10/02
Benzyl alcohol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Bis(2-chloroethoxy)methane	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Bis(2-chloroethyl)ether	**Not detected**	ug/L	1	SW846 8270	RG	09/10/02
Bis(2-chloroisopropyl)ether	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Bromophenyl phenyl ether	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Butyl benzyl phthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Carbazole	**Not detected**	ug/L	10	SW846 8270	RG	09/10/02
4-Chloro-3-methylphenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Chloroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
2-Chloronaphthalene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Chlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Chlorophenyl phenyl ether	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Chrysene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Di-n-butylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Di-n-octylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Dibenzo(a,h)anthracene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Dibenzofuran	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,2-Dichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,3-Dichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,4-Dichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05309**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-3 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,4-Dichlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,6-Dichlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Diethylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,4-Dimethylphenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Dimethylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4,6-Dinitro-2-methylphenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
2,4-Dinitrophenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
2,4-Dinitrotoluene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,6-Dinitrotoluene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,2-Diphenylhydrazine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Fluoranthene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Fluorene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Hexachlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Hexachlorobutadiene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Hexachlorocyclopentadiene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Hexachloroethane	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Indeno(1,2,3)pyrene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Isophorone	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Methylnaphthalene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Methylphenol (o-Cresol)	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
3&4-Methylphenol(m&p-Cresol)	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
N-Nitrosodi-n-propylamine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
N-Nitrosodimethylamine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
N-Nitrosodiphenylamine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Naphthalene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Nitroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
3-Nitroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
4-Nitroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
Nitrobenzene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
2-Nitrophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Nitrophenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
Pentachlorophenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02

Brighton Analytical L.L.C.™
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Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05309**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-3 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Phenanthrene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Phenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Pyrene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,2,4-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,4,5-Trichlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,4,6-Trichlorophenol	**Not detected**	ug/L	4	SW846 8270	RG	09/10/02
BNA (extraction)	**Extracted**			3510/3550	MB	09/10/02
Volatile Analysis						
Acetone	**Not detected**	ug/L	25	SW846 8260	JH	09/13/02
Acrylonitrile	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Benzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromochloromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromodichloromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromoform	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromomethane(Methyl Bromide)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
2-Butanone (MEK)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Carbon disulfide	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Carbon tetrachloride	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chloroform	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chloromethane(Methyl Chloride)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
cis-1,2-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
cis-1,3-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Dibromochloromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dibromoethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Dibromomethane(Methylene Bromide)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,3-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,4-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02

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Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05309**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-3 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dichlorodifluoromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1-Dichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dichloropropane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Diethyl ether	**Not detected**	ug/L	10	SW846 8260	JH	09/13/02
Ethyl benzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Hexachloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
2-Hexanone(Methyl Butyl Ketone)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Isopropylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Methyl iodide(Iodomethane)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Methylene chloride	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
2-Methylnaphthalene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
n-Butylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
n-Propylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Naphthalene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Styrene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1,1,2-Tetrachloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1,2,2-Tetrachloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Tetrachloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Toluene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
trans-1,2-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
trans-1,3-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
trans-1,4-Dichloro-2-butene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2,3-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
1,2,4-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
1,1,1-Trichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1,2-Trichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Trichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Trichlorofluoromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02

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Ann Arbor, MI 48108

Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

BA Report Number: **60958**
BA Sample ID: **BA05309**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-3 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,3-Trichloropropane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2,4-Trimethylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,3,5-Trimethylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Vinyl chloride	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Xylenes(total)	**Not detected**	ug/L	3	SW846 8260	JH	09/13/02

DL=Detection Limit as recommended by MDEQ

Released by: _____

Date: 9/16/02

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Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05310**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-2 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Acenaphthylene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Anthracene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Benzo(a)anthracene	**Not detected**	ug/L	1	SW846 8270	RG	09/10/02
Benzo(a)pyrene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Benzo(b)fluoranthene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Benzo(ghi)perylene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Benzo(k)fluoranthene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Benzoic acid	**Not detected**	ug/L	50	SW846 8270	RG	09/10/02
Benzyl alcohol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Bis(2-chloroethoxy)methane	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Bis(2-chloroethyl)ether	**Not detected**	ug/L	1	SW846 8270	RG	09/10/02
Bis(2-chloroisopropyl)ether	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Bromophenyl phenyl ether	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Butyl benzyl phthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Carbazole	**Not detected**	ug/L	10	SW846 8270	RG	09/10/02
4-Chloro-3-methylphenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Chloroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
2-Chloronaphthalene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Chlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Chlorophenyl phenyl ether	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Chrysene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Di-n-butylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Di-n-octylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Dibenzo(a,h)anthracene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Dibenzofuran	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,2-Dichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,3-Dichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,4-Dichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02

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Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05310**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-2 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,4-Dichlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,6-Dichlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Diethylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,4-Dimethylphenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Dimethylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4,6-Dinitro-2-methylphenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
2,4-Dinitrophenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
2,4-Dinitrotoluene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,6-Dinitrotoluene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,2-Diphenylhydrazine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Fluoranthene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Fluorene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Hexachlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Hexachlorobutadiene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Hexachlorocyclopentadiene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Hexachloroethane	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Indeno(1,2,3)pyrene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Isophorone	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Methylnaphthalene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Methylphenol (o-Cresol)	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
3&4-Methylphenol(m&p-Cresol)	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
N-Nitrosodi-n-propylamine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
N-Nitrosodimethylamine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
N-Nitrosodiphenylamine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Naphthalene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Nitroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
3-Nitroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
4-Nitroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
Nitrobenzene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
2-Nitrophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Nitrophenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
Pentachlorophenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02

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BA Report Number: **60958**
BA Sample ID: **BA05310**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-2 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Phenanthrene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Phenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Pyrene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,2,4-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,4,5-Trichlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,4,6-Trichlorophenol	**Not detected**	ug/L	4	SW846 8270	RG	09/10/02
BNA (extraction)	**Extracted**			3510/3550	MB	09/10/02
Volatile Analysis						
Acetone	**Not detected**	ug/L	25	SW846 8260	JH	09/13/02
Acrylonitrile	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Benzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromochloromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromodichloromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromoform	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromomethane(Methyl Bromide)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
2-Butanone (MEK)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Carbon disulfide	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Carbon tetrachloride	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chloroform	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chloromethane(Methyl Chloride)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
cis-1,2-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
cis-1,3-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Dibromochloromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dibromoethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Dibromomethane(Methylene Bromide)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,3-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,4-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02

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BA Report Number: **60958**
BA Sample ID: **BA05310**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-2 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dichlorodifluoromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1-Dichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dichloropropane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Diethyl ether	**Not detected**	ug/L	10	SW846 8260	JH	09/13/02
Ethyl benzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Hexachloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
2-Hexanone(Methyl Butyl Ketone)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Isopropylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Methyl iodide(Iodomethane)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Methylene chloride	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
2-Methylnaphthalene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
n-Butylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
n-Propylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Naphthalene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Styrene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1,1,2-Tetrachloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1,2,2-Tetrachloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Tetrachloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Toluene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
trans-1,2-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
trans-1,3-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
trans-1,4-Dichloro-2-butene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2,3-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
1,2,4-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
1,1,1-Trichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1,2-Trichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Trichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Trichlorofluoromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02

Brighton Analytical L.L.C. TM

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05310**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-2 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,3-Trichloropropane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2,4-Trimethylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,3,5-Trimethylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Vinyl chloride	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Xylenes(total)	**Not detected**	ug/L	3	SW846 8260	JH	09/13/02

DL=Detection Limit as recommended by MDEQ

Released by: _____

Date: 9/16/02

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05311**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-1 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Analysis						
Acenaphthene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Acenaphthylene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Anthracene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Benzo(a)anthracene	**Not detected**	ug/L	1	SW846 8270	RG	09/10/02
Benzo(a)pyrene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Benzo(b)fluoranthene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Benzo(ghi)perylene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Benzo(k)fluoranthene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Benzoic acid	**Not detected**	ug/L	50	SW846 8270	RG	09/10/02
Benzyl alcohol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Bis(2-chloroethoxy)methane	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Bis(2-chloroethyl)ether	**Not detected**	ug/L	1	SW846 8270	RG	09/10/02
Bis(2-chloroisopropyl)ether	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Bis(2-ethylhexyl)phthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Bromophenyl phenyl ether	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Butyl benzyl phthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Carbazole	**Not detected**	ug/L	10	SW846 8270	RG	09/10/02
4-Chloro-3-methylphenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Chloroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
2-Chloronaphthalene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Chlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Chlorophenyl phenyl ether	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Chrysene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Di-n-butylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Di-n-octylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Dibenzo(a,h)anthracene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Dibenzofuran	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,2-Dichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,3-Dichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,4-Dichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05311**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-1 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
2,4-Dichlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,6-Dichlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Diethylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,4-Dimethylphenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Dimethylphthalate	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4,6-Dinitro-2-methylphenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
2,4-Dinitrophenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
2,4-Dinitrotoluene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,6-Dinitrotoluene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,2-Diphenylhydrazine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Fluoranthene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Fluorene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Hexachlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Hexachlorobutadiene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Hexachlorocyclopentadiene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Hexachloroethane	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Indeno(1,2,3)pyrene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
Isophorone	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Methylnaphthalene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Methylphenol (o-Cresol)	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
3&4-Methylphenol(m&p-Cresol)	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
N-Nitrosodi-n-propylamine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
N-Nitrosodimethylamine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
N-Nitrosodiphenylamine	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Naphthalene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2-Nitroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
3-Nitroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
4-Nitroaniline	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
Nitrobenzene	**Not detected**	ug/L	2	SW846 8270	RG	09/10/02
2-Nitrophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
4-Nitrophenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02
Pentachlorophenol	**Not detected**	ug/L	20	SW846 8270	RG	09/10/02

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05311**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-1 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Phenanthrene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Phenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
Pyrene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
1,2,4-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,4,5-Trichlorophenol	**Not detected**	ug/L	5	SW846 8270	RG	09/10/02
2,4,6-Trichlorophenol	**Not detected**	ug/L	4	SW846 8270	RG	09/10/02
BNA (extraction)	**Extracted**			3510/3550	MB	09/10/02
Volatile Analysis						
Acetone	**Not detected**	ug/L	25	SW846 8260	JH	09/13/02
Acrylonitrile	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Benzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromochloromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromodichloromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromoform	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Bromomethane(Methyl Bromide)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
2-Butanone (MEK)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Carbon disulfide	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Carbon tetrachloride	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chloroform	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Chloromethane(Methyl Chloride)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
cis-1,2-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
cis-1,3-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dibromo-3-Chloropropane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Dibromochloromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dibromoethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Dibromomethane(Methylene Bromide)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,3-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,4-Dichlorobenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02

Brighton Analytical L.L.C. ™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05311**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-1 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Dichlorodifluoromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1-Dichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2-Dichloropropane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Diethyl ether	**Not detected**	ug/L	10	SW846 8260	JH	09/13/02
Ethyl benzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Hexachloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
2-Hexanone(Methyl Butyl Ketone)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Isopropylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Methyl iodide(Iodomethane)	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Methyl(tert)butyl ether(MTBE)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
4-Methyl-2-pentanone(MIBK)	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Methylene chloride	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
2-Methylnaphthalene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
n-Butylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
n-Propylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Naphthalene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
Styrene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1,1,2-Tetrachloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1,2,2-Tetrachloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Tetrachloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Toluene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
trans-1,2-Dichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
trans-1,3-Dichloropropene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
trans-1,4-Dichloro-2-butene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2,3-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
1,2,4-Trichlorobenzene	**Not detected**	ug/L	5	SW846 8260	JH	09/13/02
1,1,1-Trichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,1,2-Trichloroethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Trichloroethene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Trichlorofluoromethane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02

Brighton Analytical L.L.C. ™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650

Sample Date: 09/09/02
Submit Date: 09/10/02
Report Date: 09/16/02

To: Geotrans, Inc.
710 Avis Drive
Ann Arbor, MI 48108

BA Report Number: **60958**
BA Sample ID: **BA05311**

Project Name: **Campbell soup**
Project Number: **P896**
Sample ID: **M-1 groundwater**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2,3-Trichloropropane	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,2,4-Trimethylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
1,3,5-Trimethylbenzene	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Vinyl chloride	**Not detected**	ug/L	1	SW846 8260	JH	09/13/02
Xylenes(total)	**Not detected**	ug/L	3	SW846 8260	JH	09/13/02

DL=Detection Limit as recommended by MDEQ

Released by: JH Kenyon
Date: 9/16/02

Brighton Analytical, L.L.C.™
2105 Pless Drive
Brighton, MI 48114
Phone: 810-229-7575
Fax: 810-229-8650

BA PROJECT #: 60958

ABBREVIATIONS FOR MATRIX
S = Solid
L = Liquid
DW = Drinking H_2O
WW = Wastewater
O = Oil
P = Wipe
A = Air (Tedlar Bag)
F = Filter
T = Tube
M = Methanol

COMPANY NAME: GeoTrans

PROJECT NAME: Campbell Soup

PROJECT NUMBER: P896

P. O. NUMBER:

REQUESTED TURNAROUND: (circle one)
Rush: 1-3 business days (verify with lab & specify date needed)
Expedited: 5 business days
Standard: 10 business days

If RUSH, approved by: _____

Analysis Requested/Method

REPORT RESULTS TO:
TESHA YIELDING
GEOTRANS IN
710 AVIS DR, ANN ARBOR
Attn:
PHONE: (734) 213-4068
FAX: (734) 213-5008

Sample received within holding time? yes ☒ no ☐
For TCLP ONLY – Federal Limits ☐ Other ☐
Samples intact: yes ☒ no ☐ (if no, see below)
Note samples if not intact:
Headspace/bubbles in VOA'S? yes ☐ no ☐ n/a ☐
Sample containers and COC match? yes ☐ no ☐

Brighton ID #	Sample Description	Sampling Time	Sampling Date	VOA'S (PRES) Y N (2)	HDPE UNPRESERVED	HDPE HNO_3	HDPE H_2SO_4	HDPE NAOH	AMBER (1)	GLASS H_2SO_4	GLASS, NO PRESERVATIVE	MEOH Preserved: (F)ield or (L)ab Preserved	Sample Matrix	FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTERED VOC - Method 8260B	SVOCs - Method 8270						
1) MW-3	groundwater	10:45	9/9/02	X					X				L	X	X			BA	5309		
2) MW-2	"	11:45	9/9/02	X					X				L	X	X					10	
3) MW-1	"	12:00	9/9/02	X					X				L	X	X					11	
4)																					
5)																					
6)																					
7)																					
8)																					
9)																					
10)																					
11)																					

Comments:
FAX

Temperature of Samples °C: 4

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	[signature]	[signature]	9/10/02	9:10	3				
2	[signature]	[signature]	9/10/02	11:45	4				

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

DMWM - HW

173

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

WORK PLAN

FOR

PHASE II ENVIRONMENTAL SITE ASSESSMENT

AT

CAMPBELL SOUP COMPANY PLANT

NAPOLEON, OHIO

Prepared for:

CAMPBELL SOUP COMPANY

Prepared by:

Law Engineering, Inc.
Cincinnati, Ohio

August 31, 1994

RECEIVED
SEP 12 1994
OHIO E.P.A.
N.W.D.O.

WORK PLAN

FOR

PHASE II ENVIRONMENTAL SITE ASSESSMENT

AT

CAMPBELL SOUP COMPANY PLANT

NAPOLEON, OHIO

Prepared for:

CAMPBELL SOUP COMPANY

Prepared by:

Law Engineering, Inc.

Cincinnati, Ohio

August 31, 1994

Law Engineering Project 724.94.138

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

August 31, 1994

Campbell Soup Company
Campbell Place
Camden, New Jersey 08103-1799

Attention: Dr. Osman M. Aly
Director of Environmental Affairs

We are pleased to submit our "Work Plan for Phase II Environmental Site Assessment at Campbell Soup Company Plant, Napoleon, Ohio".

The objectives of the project will be to evaluate the site for the presence of subsurface contamination from the pouring of spent solvents on top of coal stored in the stockpile area. This assessment is in response to a Notice of Violation issued by The Ohio Environmental Protection Agency.

We appreciate the opportunity to be of service to you on this project. Please call if you have any questions or need additional information.

Respectfully submitted,

LAW ENGINEERING, INC.

James M. DeLano
Project Engineer

LAW/CRANDALL, INC.

Daniel T. Elliott, R.G. 4129
Principal Geologist
Remediation Services Manager

Attachments

LAW ENGINEERING, INC.
7300 TURFWAY ROAD, SUITE 250 • FLORENCE, KY 41042-1338
P. O. BOX 75204 • CINCINNATI, OH 45275
(606) 371-2960 • FAX (606) 371-2971
ONE OF THE LAW COMPANIES

1.0 INTRODUCTION

Law Engineering, Inc. is pleased to submit this work plan which outlines the work to be performed at the Campbell's Soup Company Plant in Napoleon, Ohio, as shown on Figure 1, Site Location Map.

This work plan was prepared to satisfy the current requirements of the Ohio Environmental Protection Agency.

1.1 PROJECT BACKGROUND

The subject site is currently occupied by a soup production and canning complex. This assessment is being performed in response to a Notice of Violation presented to Campbell's Soup Company by the Ohio Environmental Protection Agency (EPA) dated April 26, 1994 and the subsequent letter dated June 16, 1994. The Ohio EPA alleges that certain contamination of the surface soils in the coal stockpile area adjacent to the power plant may have occurred as a result of pouring spent solvents over the boiler coal supply prior to burning. The Ohio EPA requested that samples be obtained from the area beneath the coal pile where solvents were previously poured and from the area beneath the coal pile where no solvents are poured.

1.2 OBJECTIVE AND SCOPE

A Phase II Site Assessment will be performed to evaluate the impact of pouring the solvents on the coal pile on the underlying soil.

The proposed work is summarized as follows:

- Prepare this work plan and a Health and Safety Plan.

- Hand auger and sample ten soil borings.

- Perform laboratory analyses on selected soil samples.

- Submit an assessment report documenting the work performed and present our conclusions and recommendations regarding the site.

1.3 PROJECT ORGANIZATION

Law Engineering, Inc. has identified Mr. Daniel T. Elliott as the overall project manager. Mr. Elliott will also be responsible for technical oversight during performance of the work, and Mr. James DeLano will be responsible for supervision of the field activities. On-site field supervision of both our personnel and subcontractors will be performed by Mr. James DeLano, who will also serve as on-site Health and Safety Officer.

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2.0 TECHNICAL APPROACH

This section presents our understanding of the requirements of the environmental site assessment and the technical approach we will use to meet these requirements. The major tasks are as follows:

Site Visit
Health and Safety Plan
Soil Sampling
Laboratory Analysis
Data Evaluation and Reporting

Our approach to these tasks is presented in the following sections.

2.1 SITE VISIT

We visited the site to obtain information for preparation of this work plan as well as a site-specific Health and Safety Plan.

2.2 HEALTH AND SAFETY PLAN

The Health and Safety Plan provides site-specific health and safety controls to be followed during the drilling and sampling activities. The Health and Safety Plan is presented in Appendix A and will be available to all on-site personnel during the field activities.

The elements of the plan will include the following:

Identification of potential Physical Hazards
Identification of potential Chemical Hazards
Level of Protection required for on-site personnel

Emergency Medical Care Information

Chemical hazard information is presented on the attached Material Safety Data Sheets (Appendix B).

2.4 SOIL SAMPLING

2.4.1 Soil Boring Construction

A total of five soil borings will be advanced using a hand auger at the subject site as shown in Figure 2. The borings will be located as follows:

- Four 5-foot deep hand auger borings will be located beneath the area where spent solvents were poured on the coal pile.

- One hand auger boring will be advanced to a depth of 5-feet near the east side of the coal storage and mixing area. This sample will be obtained from an area beneath the coal pile where no solvents were poured. This sample will be used as the comparison sample for the samples obtained from areas beneath the coal pile where solvents were poured.

On completion, the borings will be backfilled with native soil material.

2.4.2 Soil

Undisturbed soil samples will be taken at depths of one feet and five feet below the ground surface. The soil samples obtained at a depth of one foot will be used to assess the impact of the pouring of spent solvents on the coal pile. The soil samples obtained from a depth of five feet will be used to assess the potential migration of contaminants, if any. The soil samples obtained from beneath the coal pile where spent solvents were poured will be

compared to the areas where solvents were not poured on the coal pile. The samples will be acquired with a hand sampler driven ahead of the hand auger. The samples will be retained in clean brass sleeves that will be capped with Teflon-lined plastic caps, labeled, and placed into a chilled ice chest. Duplicate soil samples will be screened for the presence of volatile organic vapors using a portable photo-ionization detector (PID).

The samples will be collected and logged by one of our field engineer/scientists. The samples will be stored in an insulated ice chest until transportation to a state-certified laboratory for analysis. The appropriate Chain-of-Custody documentation will accompany the samples at all times.

2.4.3 Decontamination Procedures

The downhole augering equipment will be steam cleaned prior to use. The sampling equipment and brass sleeves will be washed prior to use using the standard EPA three bucket wash/rinse.

2.5 LABORATORY ANALYSIS

Ten soil samples were selected based on field observations and PID readings will be chemically analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8240 and for semi-volatile organic compounds by EPA Method 8270.

For the purpose of developing this work plan, we have assumed the following:

- Ten soil samples will be analyzed for volatiles by EPA Method 8240.
- Ten soil samples will be analyzed for semi-volatile organic compounds by EPA Method 8270.

2.6 WASTE DISPOSAL PROCEDURES

Soil cuttings from the borings will be used to backfill the hand auger borings.

2.7 DATA EVALUATION AND REPORT PREPARATION

We will evaluate the field and laboratory data and summarize the findings of our assessment work in a written report that will contain field observations, laboratory data, conclusions and recommendations. The report will contain copies of laboratory analytical data, Chain-of-Custody documentation, as well as site sketches, boring logs, and other graphics as needed. The report will include a discussion of contaminants (if present) and their concentrations.

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3.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PLAN

Quality Assurance/Quality Control (QA/QC) procedures will be performed to ensure the accuracy and precision of field and laboratory methods.

Field documentation will include a daily field record, manifests, and sample Chain-of-Custody records. The daily field record will include information such as personnel on-site, discussion of activities performed, work completed, Health and Safety monitoring records, field observations, and other pertinent data.

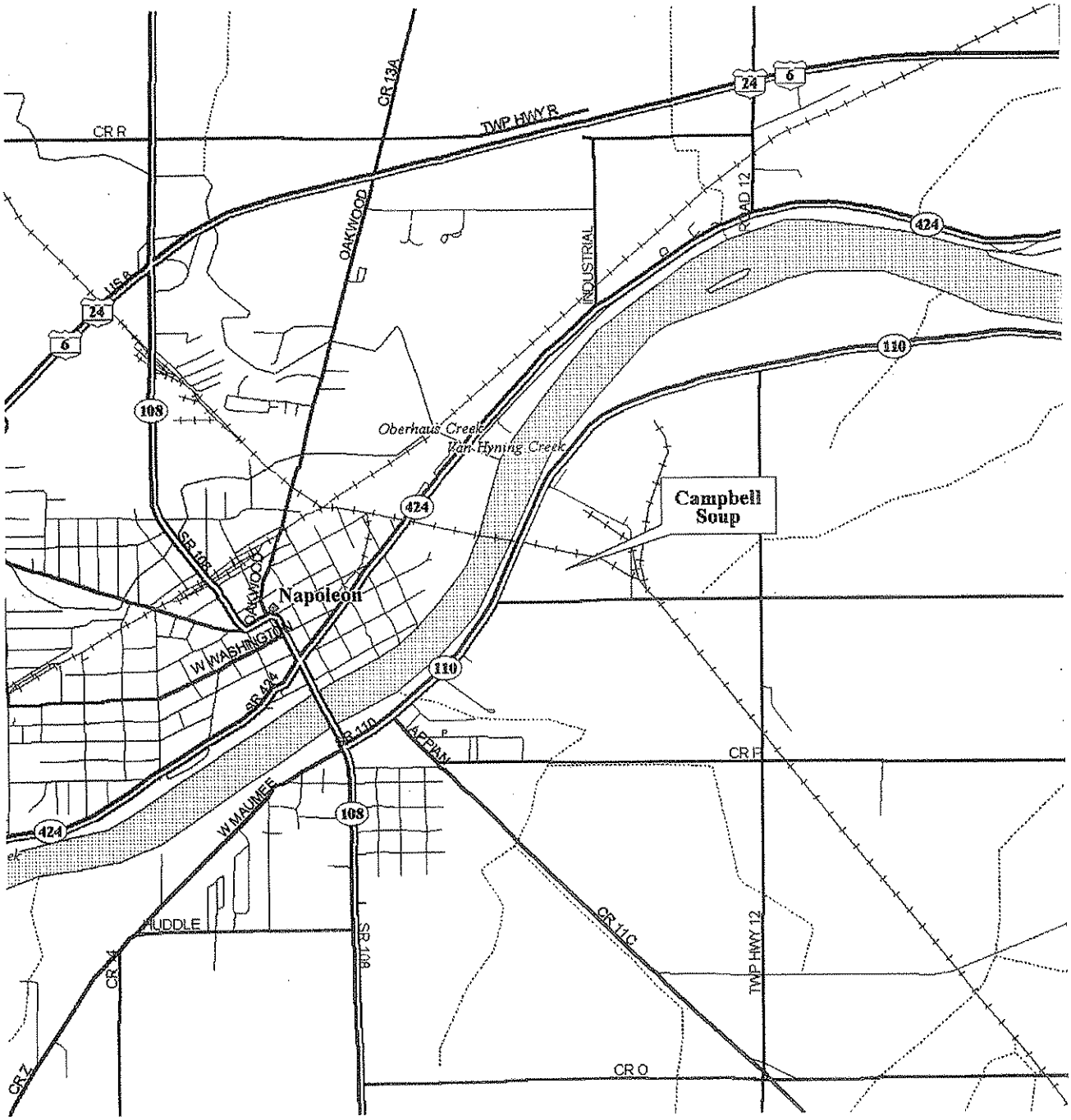
The following are attached and complete this report:

Figure 1 . . . . . Site Location Map
Figure 2 . . . . . Site Plan and Proposed Boring Locations

Appendix A . . . . . Health and Safety Plan
Plate 1-A . . . . . Hospital Location Map
Plate 2-A . . . . . Safety Meeting Documentation

Appendix B . . . . . Material Safety Data Sheets

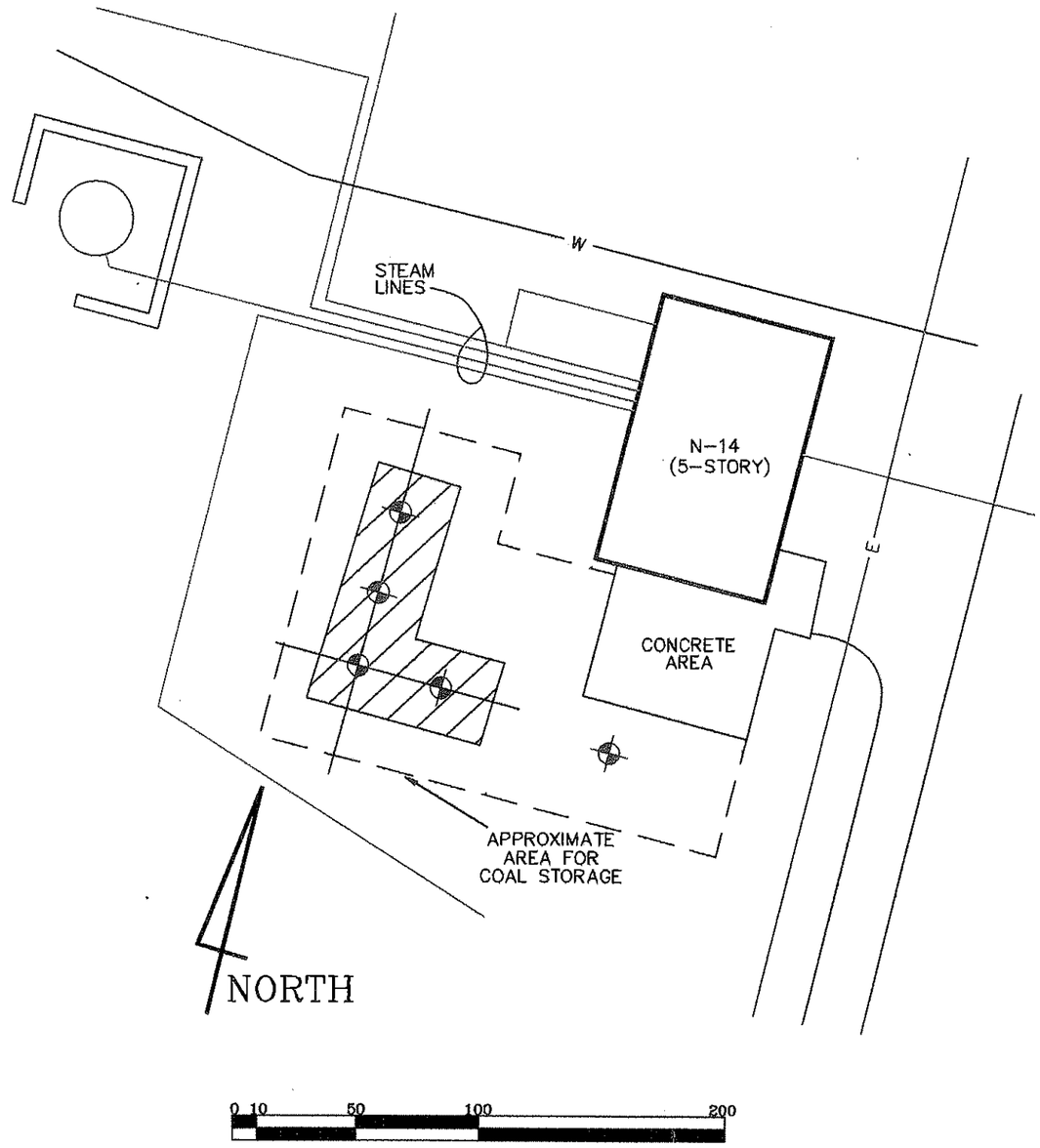




SITE LOCATION MAP
(NOT TO SCALE)
SOURCE: MAPEXPERT 2.0

NORTH

CAMPBELL SOUP E. Maumee Ave Napoleon, Ohio	LAW Engineering and Environmental Services	FIGURE 1 724.94.138 August 31, 1994



LEGEND

AREA WHERE SOLVENTS WERE POURED

HAND AUGER BORING LOCATIONS

LAW ENGINEERING AND ENVIRONMENTAL SERVICES
CINCINNATI, OHIO

NO.	DESCRIPTION	DATE

REVISIONS

FIGURE 2
BORING LOCATION PLAN

COAL STORAGE AREA
CAMPBELLS SOUP COMPANY
NAPOLEON, OHIO

LAW PROJECT NO.
724.94.138.01

DRAWN BY CMF
SHEET NO. OF
CHECKED BY
SCALE 1" = 60'
APPROVED BY
DATE AUGUST 24, 1994

DRAWING NO.
72494138.01

LAW ENGINEERING, INC

APPENDIX A

HEALTH AND SAFETY PLAN

HEALTH AND SAFETY PLAN

FOR

PHASE II ENVIRONMENTAL SITE ASSESSMENT

AT

CAMPBELL SOUP COMPANY/

NAPOLEON PLANT

NAPOLEON, OHIO

Prepared for:

Campbell Soup Company

Napoleon, Ohio

Prepared by:

Law Engineering, Inc.

Cincinnati, Ohio

August 31, 1994

Law Engineering Project No. 724.94.138

PROJECT PRINCIPAL	Daniel T. Elliott	Date
PROJECT MANAGER/ SITE HEALTH & SAFETY COORDINATOR	James M. DeLano	8/31/94 Date

1.0 INTRODUCTION

The Health and Safety Plan provides site-specific health and safety controls to be followed during the site assessment field activities to be performed at the Campbell Soup Company/Napoleon Plant. The elements of this plan include procedures for personnel protection, personnel and equipment safety, medical surveillance, air quality monitoring, and general work practices for Law Engineering, Inc. and our subcontractors. This plan also details the proper emergency procedures including emergency response and first-aid capabilities. Compliance with this Health and Safety Plan is required of workers and third parties who enter the field operation areas during the field activities.

The purpose of this Health and Safety Plan is to describe the anticipated physical and health hazards, controls, and procedures needed to minimize the accident and injury risks associated with field work conducted during the field activities at the subject facility.

The provisions specified here are intended to conform to applicable State environmental and occupational health and safety regulations. These control measures will apply to field personnel who participate in the field work. Field personnel will continuously monitor the site conditions to ensure that the field work does not endanger surrounding on-site and off-site personnel.

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2.0 ASSIGNMENT OF RESPONSIBILITIES

2.1 INTRODUCTION

The following sections briefly describe the health and safety personnel responsibilities which will be employed during the site assessment activities at the site.

2.2 SITE HEALTH AND SAFETY COORDINATOR

The Site Health and Safety Coordinator (SHSC) is responsible for the development of the site plan. These areas of responsibility include hazard assessment, medical requirements, training requirements, air monitoring, personal protective equipment, site control, decontamination protocol, emergency actions and record keeping.

2.3 FIELD SUPERVISOR/SITE SAFETY OFFICER

The field supervisor is responsible for field implementation of the plan and is the Site Safety Officer (SSO). This includes communicating specific requirements to site personnel and consulting with the health and safety coordinator on safety and health requirements. The field supervisor, in conjunction with the Site Health and Safety Coordinator will implement emergency actions, as necessary. The field supervisor has final authority at the site.

2.4 SITE PERSONNEL

Site personnel are responsible for understanding and complying with site safety and health requirements. Safety Meeting Documentation forms (Plate 2-A) will be used to document that site personnel have been apprised of site safety and health requirements.

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3.0 GENERAL HEALTH AND SAFETY REQUIREMENTS

3.1 TRAINING

Health and Safety training is required for personnel assigned to work on the site or who may be expected to perform potentially hazardous activities.

Consistent with the Federal OSHA 29 CFR 1910.120 regulations covering Hazardous Waste Operations and Emergency Response, site personnel are required to be trained in accordance with the standard. At a minimum, personnel are required to be trained to recognize the hazards on site, the provisions of this HSP and the responsible personnel.

3.1.1 Preassignment Training

Prior to arrival on site, each employer shall be responsible for certifying that field personnel meet the requirements of preassignment training. Consistent with Federal OSHA 29 CFR 1910.120 each employer shall be able to provide a document certifying dates of 40 hours of training. An employer may also grandfather experienced personnel. Personnel must receive 8 hours of annual refresher training.

3.1.2 Site-Specific Training

Site personnel will complete site-specific training that will address potential hazards anticipated to be at the site and control measures to be implemented. This training will include the following:

- Health and Safety Plan - Site personnel will be instructed verbally on the contents of the plan.

- Hazard Awareness - Employees will be made aware of the chemicals used or suspected to have been used on site. Information will include potential routes of exposure, acute and/or chronic effects, protective clothing to be worn, precautionary measures to be taken, and specific task assignments.

- Safety meeting information will be recorded on Safety Meeting Documentation forms (Plate 2-A), which will be retained in project files.

3.1.3 First Aid and CPR Training

It is required that a selected number of field personnel including the SHSC shall have First-Aid and CPR training. These courses shall be consistent with the requirements of the American Red Cross Association. Only employees current in first-aid/CPR training are to render assistance to an injured employee.

3.2 MEDICAL PROGRAM

Medical monitoring programs are designed to track the physical condition of employees on a regular basis as well as to establish preemployment or baseline conditions prior to potential exposures. The medical surveillance program is part of each employer's Health and Safety Program.

3.2.1 Baseline or Preassignment and Periodic Monitoring

Prior to being assigned to a hazardous or potentially hazardous activity involving exposure to toxic materials, each site employee must have received a preassignment or baseline physical or an update physical within the last 12 months that complies with the Federal OSHA 29 CFR 1910.120 requirements. The specific contents of the physical is to be determined by the employer's medical consultant.

No additional testing for site specific contaminant health effects is required for this site.

3.2.2 Exposure/Injury/Medical Support

As a follow-up to an injury or possible exposure above established exposure limits, all employees are entitled to and encouraged to seek medical attention and physical testing. Depending upon the type of exposure, it is critical to perform follow-up testing within 24-48 hours. In the event of an injury, site personnel are to administer first-aid, as appropriate, transport the victim to the closest emergency care facility as identified on

Plate 1-A, or call 911 for assistance.

3.3 SITE SAFETY MEETINGS

Site Safety meetings will be conducted by the SSO before field personnel begin work, when there are modifications to the Health and Safety Plan, and when additional personnel begin field work. Meetings shall be attended by all field personnel involved in field activities.

The meeting topics shall include the following:

- Description of the assigned tasks and their potential hazards;
- Coordination of site activities;
- Physical and health hazards;
- Identification of methods and precautions to prevent injuries;
- Emergency planning;
- Modification to Health and Safety Plan;
- Input from field personnel on health and safety issues pertaining to site activities; and
- Collection of the attendees' signatures, acknowledging receipt and understanding of the Health and Safety Plan and their agreement to comply.

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4.0 PHYSICAL AND CHEMICAL HAZARDS

The following section details the potential safety and hazards which may be encountered during the drilling project.

4.1 PHYSICAL HAZARDS

Anticipated physical hazards include exposure to noise from site equipment, heavy equipment and traffic hazards, vehicle use, heat stress from the use of personal protective equipment, and other hazards associated with any outdoor labors such as slips, trips, falls, splashes, spills, and material-handling (back) injuries. Caution will be exercised to avoid such hazards.

4.1.1 Heat Stress

The ambient air temperature is expected to be above 70°F; therefore, heat stress monitoring will be required.

Heat Stress Illnesses

- Heat stroke is a life threatening situation in which the victim's temperature control system, which produces sweating to cool body, stops working. Body temperature can rise quickly to levels that can cause brain damage and death. Immediate action is required.

- Heat exhaustion is less dangerous and results from loss of body fluids. This fluid loss causes blood flow to decrease in vital organs, resulting in a form of shock. In addition, sweat does not evaporate properly due to high humidity or layers of clothing, resulting in inadequate cooling of the body.

- Heat cramps are muscular spasms due to heavy exertion. These cramps usually involve the abdomen and legs and are caused by the loss of water and salt via heavy sweating.

- Heat rash is a skin rash that occurs from excessive moisture and chaffing clothes. Commonly referred to as "prickly rash".

Preventing heat stress is particularly important because once someone suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat injuries. The signs/symptoms and first-aid for heat related illnesses are summarized in Table 1.

Method of Controlling Heat Stress

Adequate shade in which employees can rest and drinking water (or electrolyte solution to prevent dehydration) must be available at the site. Employees are encouraged to drink plenty of fluids.

The following initial work schedule will be implemented:

Heat Stress Monitoring:

- Count the heart rate by the radial pulse for 1 minute for all personnel at the beginning of the day prior to start of activities.
- Work for 1 to 1½ hours.
- Break for 15 minutes.
- Count the radial pulse for all personnel for 30 seconds (and multiply by 2) at the beginning of the break period.
- If the heart rate exceeds 110 beats per minute (BPM), shorten the next work cycle by ⅓ and keep the rest periods at 15 minutes.
- If the heart rate exceeds 110 BPM at the next rest period, shorten the next work cycle by ⅓ again, keeping the 15 minute breaks.

- If the heart rate ever exceeds 120 BPM, the employee will be required to rest for 30 to 45 minutes to allow the heart rate to decrease to at least 90 BPM.

Forms of Heat Stress	Signs/Symptoms	First Aid
Heat Stroke	Hot, red skin Constricted (small) pupils High body temperature Unusually dry skin	Call EMS (911), care for shock. Immerse in cool water or wrap in wet towels. Give NOTHING by mouth.
Heat Exhaustion	Cool, pale, moist skin Heavy sweating Normal body temperature Dilated (large) pupils Headache, nausea, dizziness, vomiting	Move to cool area. Have victim lie down, elevating feet by 1 to 1½ feet. Loosen clothing. Apply wet towels, give glass of water every 15 minutes.
Heat Cramps	Muscular pain, aches that typically occur several hours after cessation of work/heat exposure	If cramps occur on-site move to cool place. Give glass of water every 15 minutes. Replace lost fluids/electrolytes as necessary if cramps occur off the site.

4.2 CHEMICAL HAZARDS

The principal hazard to site investigation personnel at the Campbell Soup Company/Napoleon Plant facility is potential exposure to petroleum naptha, cyclohexcanol, and isobutyl and amino alcohol. Potential hazards include toxicity due to inhalation and dermal contact of the various compounds present.

Chemical hazard information is summarized on the table presented on the following page.

CHEMICAL HEALTH HAZARD INFORMATION

Chemical / Compound	ACGIH TLVs		NIOSH	Routes of Entry	Target Organs	Acute Exposure Symptoms
	TWA	STEL	IDLH			
Mineral Spirits 135/ Petroleum Naptha	100 ppm	200 ppm	10,000 ppm	Inhalation, ingestion, skin contact, skin absorbtion	CNS, eyes, skin, respiratory system	Diziness, drownsiness, nausea; irratation of eyes, nose, throat
2 – Butoxy Ethanol	25 ppm	NA	700 ppm	Inhalation, ingestion, skin contact, skin contact, skin absorption	Eyes, skin respiratory stem	Eye, nose, skin, hemolysis
Cyclohexanol	50 ppm	50 ppm	3500 ppm	Inhalation, ingestion, skin contact, skin absorption	Eyes, skin, respiratory system	Irritated eyes, nose, skin; skin narcosis
Isobutyl Alcohol	50 ppm	50 ppm	8000 ppm	Inhalation, ingestion	Eyes, skin; respiratory system	Irritates eyes, skin; drowsiness stupor, dermatitis

4.2.1 Hazard Evaluation

Route of Exposure

Chemical contaminants may be a health hazard to site personnel via ingestion, skin absorption, or inhalation. Accidental ingestion of contaminants may occur as a result of dust or soil on the hands and hand to mouth contact or inhalation. Inhalation of vapor may occur during soil disruption activities, sample collection, and sample preparation. Skin absorption is possible if skin directly contacts site contaminants, contaminated soil or water.

4.3 LEVEL OF PROTECTION

For the described activities, personnel working at the site will initially be required to wear Level D protection. This protection will include the following:

- Coveralls
- Steel-toed boots
- Hard hat
- Disposable gloves during sample handling operations
- Eye protection, as necessary
- Ear protection, as necessary

Higher or lower levels of protective equipment may be required depending on hazard assessments and air monitoring readings during field work. The upgrade or downgrade of protective equipment will be recorded on the Field Activity Daily Log form.

If the PID steady state meter reading in the worker's breathing zone is 20 ppm or more, for one minute, then the SSO will authorize Level C protection.

Level C includes:

- Full face respirator NIOSH approved with organic vapor cartridges

- Tyvek suits (if splash hazard is possible, a polyethylene coated suit must be worn)
- Nitrile, butyl rubber, or neoprene gloves
- Steel toe/shank chemically resistant rubber or neoprene work boot, or steel toe/shank work boot with chemically resistant outer boots
- Inner disposable gloves (two pairs recommended)
- Hard hat
- Hearing protection (as appropriate)

If the PID steady state meter reading is over 250 ppm for one minute, then work will stop until Level B protection can be used.

Level B includes:

- Air supplied respirator
- Coated Tyvek suit, such as Saranex
- Nitrile, butyl rubber, or neoprene gloves
- Inner latex or vinyl gloves
- Steel toe and shank boots
- Outer boots - chemically resistant, rubber or neoprene
- Hard hat
- Hearing protection (as appropriate)

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5.0 SITE SAFETY WORK PLAN

5.1 SITE ENTRY PROCEDURES

It will be necessary for the field team to control access to the work area. The SSO will mark a restricted area, using traffic delineators (cones) and highly visible tape. Only persons who meet the safety training and medical monitoring requirements and who are in possession of the required personal protective equipment will be allowed in the restricted area. Prior to the start of field work activities, the SSO will perform the following steps as necessary:

- Sign in with facility representative and inform him of each day's planned activities.
- Locate the nearest telephone and post the emergency telephone numbers.
- Identify the locations of the fire extinguisher, emergency eye wash, first aid kit, restrooms, and rest areas.
- Flagging and barricades will be placed to prohibit entry of all unauthorized personnel to the work area/Exclusion Zone.
- Setup support zone, decontamination zone, and the up-site access point.
- Evaluate site conditions.

5.2 AIR MONITORING REQUIREMENTS

Monitoring for volatile organic compounds (VOCs) will be conducted using an photoionization detector (PID) which will be calibrated prior to use in accordance to the manufacturer's instructions. Calibration shall be recorded in the calibration log. Monitoring for combustible atmospheres will be conducted during drilling activities using either a combustible gas indicator (CGI) or the PID. VOCs will be monitored in the breathing zone of the workers. Combustible atmospheres will be monitored in low lying areas, excavations, sumps or pits, near the boring locations, and in other areas as dictated by site conditions.

5.2.1 Action Levels

Action levels for area air monitoring are as follows:

- VOC - 20 parts per million (ppm); PPE upgraded to Level C
- VOC - 250 ppm; PPE upgraded to Level B
- Combustibles - 20% of lower explosive limit (LEL) or >2,800 ppm OVA/PID reading; forced ventilation and grounding will be implemented.
- Combustibles - >20% of the LEL or >2,800 ppm PID/OVA; shut down equipment and evacuate site until forced ventilation or ambient aeration reduce levels.

If the action level is equaled or exceeded, work will stop immediately and personnel will move upwind and let the area vent for at least 5 minutes. At the end of the 5-minute waiting period, air quality measurements will be taken. If concentrations have not decreased to below the action level, the level of protection, combustible control measures and work procedures will be revaluated. Air-purifying respirators will be required if VOC levels above 20 ppm are measured in the worker breathing zone, and air-supplied respirators will be required of VOC levels exceed 250 ppm, as discussed in Section 4.3.

If the measured concentrations continue to exceed the action levels, the level of protection necessary for personnel and combustible control measures will be reevaluated. In extreme cases, a particular operation may be delayed and restarted under new working safety guidelines or may be abandoned completely.

5.3 WORK LIMITATIONS

Work limitations include the following:

- No eating, drinking, or smoking will be permitted in the field operation area.
- Contact lenses will not be worn in the field operation area.
- Facial hair that could interfere with respirator fit will not be permitted.

- The buddy system will be used at all times.
- Work will be done during the daylight hours only.
- Site activities will not be conducted during lightning storms.

5.4 DECONTAMINATION PROCEDURES

The site safety coordinator is responsible for ensuring that all pieces of equipment are properly decontaminated according to the procedures outlined above. Decontamination must be documented in the Field Daily Activity Logs.

5.4.1 Decontamination Area

Set decontamination area upwind and upgradient of the work area, as necessary. The decontamination area must be established at a sufficient distance from the drilling locations to preclude contamination by splashing water or flying dirt.

5.4.2 Personnel

Wash outer gloves and boots with soap and water. Remove and dispose of Tyvek suit or cotton coveralls, as applicable. Remove boots and then outer gloves. Remove respirator and finally remove inner gloves. Wash hands and face with soap and water, and dispose of Tyvek in drums. Containerize rinsate on-site for proper disposal. Take a shower and wash hair as soon as possible after leaving the site.

5.4.3 Equipment Decontamination

Drilling rig, drilling and sampling tools and air monitoring instruments will be cleaned before transport to the non-contaminated work area. The equipment decontamination procedures are described in the work plan.

5.4.4 Disposal of Materials Used On Site

Solid and liquid wastes generated during decontamination procedures and disposable personal protective equipment will be packed in 55-gallon reconditioned drums, and shall be contained in a secure area and will be inventoried and labeled. After analytical results determine whether soil or water is contaminated, the drums will be disposed of in an appropriate manner.

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6.0 EMERGENCY RESPONSE CONTINGENCY PROCEDURES

In the event of a catastrophe (fire, explosion, chemical release) or severe (life-threatening) medical emergency, emergency actions will be implemented by qualified field personnel. Appropriate response actions to be taken by field personnel involved in the emergency include the alerting of site individuals of the emergency situation; evacuate the site; stopping the release, if possible; requesting outside assistance, as necessary; and extinguishing small fires, if safe to do so; rendering first-aid; notifying local authorities; and transporting injured persons, if appropriate.

6.1 EMERGENCY INFORMATION

Emergency Phone Numbers:

Ambulance 911
Hospital Emergency Care 911
Poison Control Center 911
Police 911
CHEMTREC 1-800-424-9300
TSCA Hotline 202-541-1404
National Response Center 1-800-424-8802
Pesticide Information Center 1-800-845-7633
EPA ERT Emergency 201-321-6660
RCRA Hotline 1-800-424-9346
Bureau of Explosives 202-835-9500
Henry County Hospital 419-592-4015

Henry County Hospital
11-600 State Route 424
Napoleon, Ohio (See Plate 1-A)

Responsible Personnel:

Team Members	Responsibility	Phone No.
James DeLano	Field Supervisor/Site Safety Officer	(606) 371-2960
Dan Elliott	Project Manager/ Site Health & Safety Coordinator	(213) 889-5300
Nancy Newlander	Health and Safety Consultant	(213) 889-5300

6.2 PERSONNEL INJURY

The following steps will be taken if an injury occurs:

- Prevent further injury and notify the SSO.
- Initiate first aid and provide immediate medical attention for the injured person.
- Depending on the type and severity of the injury, call 911 or transport victim to nearest emergency medical facility.
- Notify the injured person's supervisor or personnel office.
- Prepare an injury incident report. The Project Manager is responsible for preparing and submitting the incident report to the Health and Safety Officer, the Manager, and the Corporate Personnel Office within 48 hours.

6.2.1 Small Fire/Explosion

In the event of a small, controlled, explosion or fire, the field supervisor will determine if fire suppression can be achieved by site personnel. Only trained, qualified personnel will be used. Appropriate actions include:

- Notify site personnel to leave work zone.
- Use of heavy equipment to smother flames with clean site soil or clean fill, if readily available.

- Use of fire extinguishers.
- Use of clean decontamination water.
- Evacuate work zone or fire area, call facility emergency number, as required.
- Evacuate work zone or fire area, call 911.
- Stay at the site while waiting for Fire Department as long as it is safe to do so.
- Notify Project Manager, Health and Safety Officer, or Department Manager.
- Determine with appropriate facility, Fire Department personnel ability to continue work.
- Notify site personnel of decision to continue work or to stop work.

6.2.2 Large Fire/Explosion

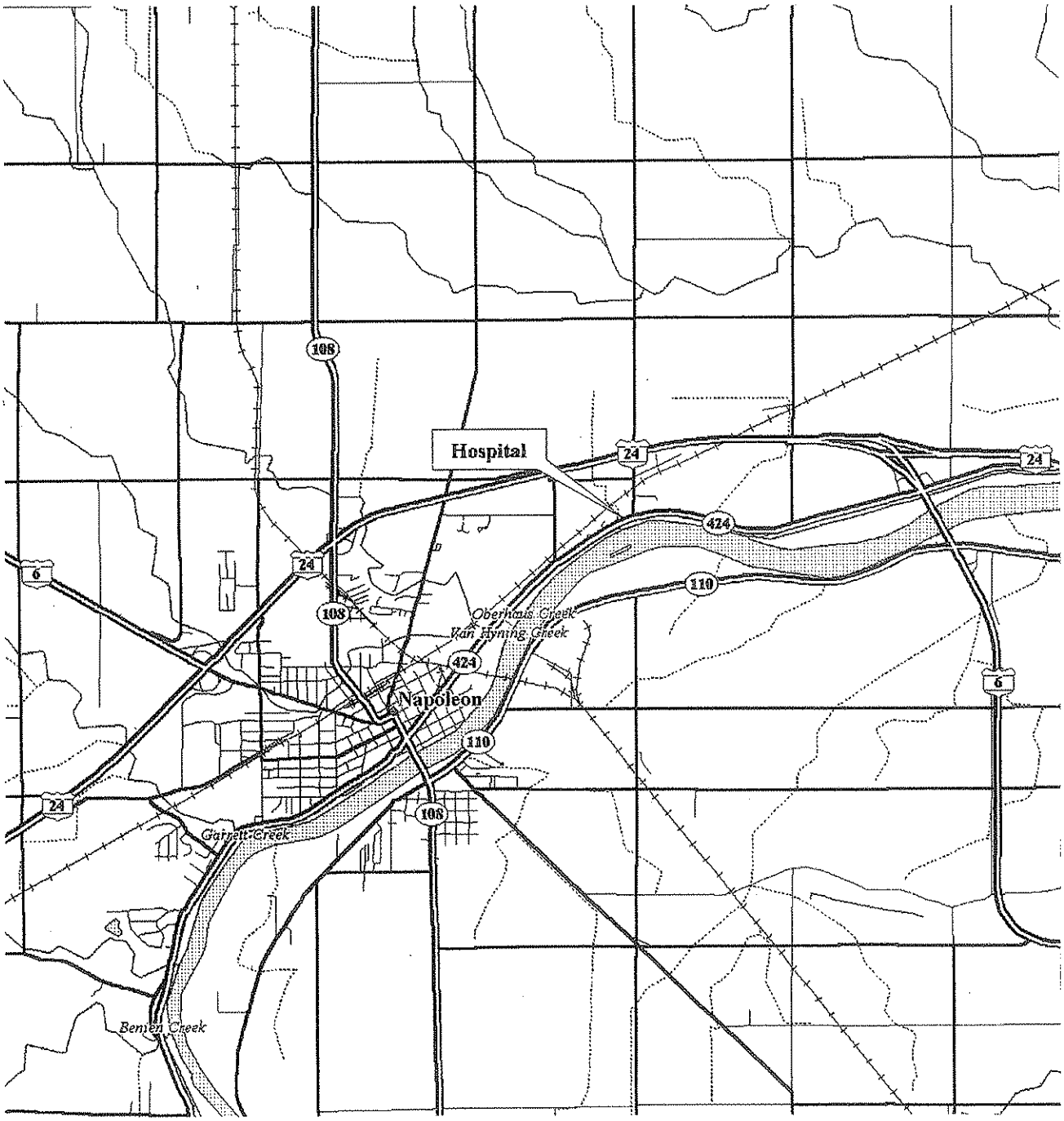
In the event of an uncontrolled or large fire or explosion, the field supervisor will:

- Immediately sound evacuation alarm.
- Call 911, or facility emergency number.
- Take head count.
- Move personnel off site to wait for Fire Department.
- Notify Project Manager, Branch Manager, or Health and Safety Officer.
- Determine, in conjunction with facility personnel and Project Manager, whether to send home site personnel.
- Remain at location, if necessary for fire department or facility investigation.

6.3 EMERGENCY SIGNALS

EQUIPMENT	SIGNAL	REQUIRED ACTION
Air Horn	1 long blast 10 seconds apart	Stop work, turn off equipment, leave work zone, use modified decon procedures, assemble in support zone
Air Horn	3 short successive blasts 10 seconds between each set	Immediately stop work, turn off equipment and evacuate site; assemble in alternate area as indicated in tailgate meetings





HOSPITAL LOCATION MAP
(NOT TO SCALE)
SOURCE: MAPEXPERT 2.0

NORTH

CAMPBELL SOUP E. Maumee Ave Napoleon, Ohio	LAW Engineering and Environmental Services	PLATE 1A 724.94.138 August 31, 1994

LAW/CRANDALL, INC.

SAFETY MEETING DOCUMENTATION

DATE OF MEETING: _____ TIME OF MEETING: _____

COMPANY: _____ BRANCH: _____ DIVISION: _____

CLIENT: _____ PROJECT NO.: _____

SITE LOCATION: _____

ADDRESS: _____

ACTIVITIES: _____

MEETING TOPICS:

1) PHYSICAL HAZARDS: _____

2) CHEMICAL HAZARDS: _____

3) BIOLOGICAL HAZARDS: _____

4) PROTECTIVE CLOTHING/EQUIPMENT: _____

5) EMERGENCY SITUATION: _____

6) NEAREST HOSPITAL/CLINIC: _____

PHONE: _____ ADDRESS: _____

7) EQUIPMENT: _____

8) OTHER: _____

(SIGNATURES ON BACK)

PLATE 2-A

APPENDIX B

MATERIAL SAFETY DATA SHEETS

CLEMENT "COVERALL" COMPANY

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP. 6-21-91

Section I

MANUFACTURER'S NAME: Clement "Coverall" Company

STREET ADDRESS: 623 Van Hook Street, Camden, NJ 08104

MAILING ADDRESS: P.O. Box 557, Camden, NJ 08101

TELEPHONE NUMBERS:

EMERGENCY: 800-424-9300 CHEMTREC

EMERGENCY: 609-429-0723 CLEMENT

INFORMATION: 609-964-9042 BUSINESS HOURS

HMIS RATINGS (NPCA)	
HEALTH 2	REACTIVITY 0
FLAMMABILITY 2	PERS. PROTEC. EQUIP.

PRODUCT CLASS

EPOXY ESTER WATER WASH CONCENTRATE

MANUFACTURER'S CODE

P-1130-W-5

Section II—HAZARDOUS INGREDIENTS

INGREDIENTS	C.A.S. NUMBER	WT. PERCENT	EXPOSURE LIMITS-TWA TLV	PEL	VAPOR PRESSURE
2-BUTOXY ETHANOL	111-76-2	24	25PPM SKIN	25PPM	0.6
CYCLOHEXANOL	108-93-0	10	50PPM	50PPM	1.0
ISOBUTYL ALCOHOL	78-83-1	<5	50PPM	100PPM	9.6
AMINO ALCOHOL	108-01-0	<5	NOT ESTABLISHED		5.0

THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES WHICH ARE DEFINED AS TOXIC UNDER SECTION 313 OF SARA TITLE III and 40 CFR 372: GLYCOL ETHER (2-BUTOXY ETHANOL).

No F-020
F-021
F-022
F-023
F-026
F-027

Section III—PHYSICAL DATA

BOILING RANGE (°F): 320-340 VAPOR DENSITY: [YY] HEAVIER [ ] LIGHTER THAN AIR

EVAPORATION RATE: [ ] FASTER [YY] SLOWER THAN ETHER PERCENT VOLATILE BY VOLUME: 44 WEIGHT PER GALLON: 8.25

Section IV—FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: COMBUSTIBLE OSHA Class II FLASH POINT (SETAFLASH): 122 °F LEL 1.1

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Avoid sources of ignition. Ground all transfer equipment. Closed containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES: Water spray (fog nozzles) may be used for cooling closed containers. Full protective equipment should be used by firefighters to protect them from hazardous decomposition products listed in Section VI.

MSDS - B

Section V—HEALTH HAZARD DATA

THESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF OVEREXPOSURE: ACUTE

EYES - Can cause severe irritation, tearing, blurred vision.

SKIN - Prolonged or repeated contact can cause moderate irritation, drying, defatting, dermatitis. Toxic if absorbed through the skin.

INHALATION - Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and asphyxiation.

INGESTION - Can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

EFFECTS OF OVEREXPOSURE: CHRONIC

Prolonged and repeated overexposure may cause anemia, liver abnormalities, kidney damage, lung damage, blood abnormalities.

AGGRAVATED MEDICAL CONDITIONS:

Pre-existing skin, eye, lung, kidney, blood and liver disorders may be aggravated by exposure.

PRIMARY ROUTES OF ENTRY:

Inhalation, skin contact and absorption.

EMERGENCY AND FIRST AID PROCEDURES: In case of skin contact, wash thoroughly with soap and water: for eyes, flush immediately with plenty of water for 15 minutes and call a physician. Remove and wash contaminated clothing before reuse. If exposed to high concentration of vapor remove patient to fresh air. If swallowed, CALL A PHYSICIAN IMMEDIATELY. DO NOT INDUCE VOMITING.

Section VI—REACTIVITY DATA

STABILITY: [ ] UNSTABLE [X] STABLE

INCOMPATIBILITY (Materials to avoid): Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: As with any organic chemical, thermal decomposition will yield carbon dioxide and probably carbon monoxide.

HAZARDOUS POLYMERIZATION [ ] MAY OCCUR [X] WILL NOT OCCUR

CONDITIONS TO AVOID: Sources of ignition, high temperatures.

Section VII—SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove sources of ignition, ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD: Incinerate in approved facility in accordance with local, state and federal regulations. Do not incinerate closed container.

Section VIII—SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NOISH approved respiratory device when airborne exposure limits are exceeded. Provide ventilation to control exposure levels below airborne exposure limits.

VENTILATION: All application areas should be ventilated in accordance with OSHA regulations.

PROTECTIVE GLOVES: Recommended.

EYE PROTECTION: Use approved safety eyewear with splash guards.

OTHER PROTECTIVE EQUIPMENT: Safety shower and eye bath.

Section IX—SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep away from heat, sparks and open flame Use only with adequate ventilation. Since emptied containers retain product residue (vapor or liquid), all labeled hazard precautions must be observed.

OTHER PRECAUTIONS: Avoid prolonged or repeated breathing of vapor or spray mist. Avoid contact with eyes and skin. Do not take internally.

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.

Shell

MATERIAL SAFETY DATA SHEET

97367 (4-85)

MSDS NUMBER ▶ 7.550-7 PAGE 1

24 HOUR EMERGENCY ASSISTANCE	GENERAL MSDS ASSISTANCE
SHELL: 713-473-9461 CHEMTREC: 800-424-9300	SHELL: 713-241-4819

ACUTE HEALTH *	FIRE	REACTIVITY	HAZARD RATING ▶
2	2	0	LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4

*For acute and chronic health effects refer to the discussion in Section III

BE SAFE
READ OUR PRODUCT SAFETY INFORMATION ...AND PASS IT ON
(PRODUCT LIABILITY LAW REQUIRES IT)

SECTION I NAMES

PRODUCT ▶	MINERAL SPIRITS 135 "OIL THINNER
CHEMICAL NAME ▶	NOT APPLICABLE
CHEMICAL FAMILY ▶	HYDROCARBON SOLVENT
SHELL CODE ▶	83048

No F020 F021 F022 F023 F026 F027

SECTION II-A PRODUCT/INGREDIENT

NO.	COMPOSITION	CAS NUMBER	PERCENT
P	MINERAL SPIRITS 135	MIXTURE*	100
1	SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC	64742-88-7	>85
2	SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	<15
--	----------TYPICAL DISTRIBUTION----------	----------	----------
.	PARAFFINS	NOT APPL.	45.9
.	NAPHTHENES	NOT APPL.	40.3
.	TOTAL AROMATICS	NOT APPL.	13.8
.	(TRIMETHYLBENZENE ..... 5-7%)	25551-13-7	--
.	(ETHYLTOLUENE ..... 0.6-0.9)	25550-14-5	--
.	OLEFINS	NOT APPL.	<0.1

*A COMPLEX COMBINATION OF PREDOMINATELY C8-C12 HYDROCARBONS; EXACT COMPOSITION WILL VARY.

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	NOT AVAILABLE		
1*	>25 ML/KG (RAT)	>4 ML/KG (RABBIT)	>700 PPM/4H (RAT)
2*	4.7 G/KG (RAT)	>4 ML/KG (RAT)	>3670 PPM/8H (RAT)

*BASED UPON TESTING OF EITHER PRODUCT OR ESSENTIALLY SIMILAR PRODUCTS.

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT
LIQUID IS MINIMALLY IRRITATING TO THE EYES. HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION.

SKIN CONTACT
LIQUID IS SLIGHTLY IRRITATING TO THE SKIN. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

PRODUCT NAME; MINERAL SPIRITS 135

HALATION
PORS MAY BE IRRITATING TO NOSE, THROAT AND RESPIRATORY TRACT. HIGH VAPOR CONCENTRATIONS MAY CAUSE CNS DEPRESSION.

GESTION
GESTION OF PRODUCT MAY RESULT IN VOMITING; ASPIRATION (BREATHING) OF VOMITUS INTO THE LUNGS MUST BE AVOIDED AS EVEN SMALL QUANTITIES MAY RESULT IN ASPIRATION PNEUMONITIS.

GNS AND SYMPTOMS
RITATION AS NOTED ABOVE. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM) DEPRESSION MAY BE IDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONCIOUSNESS AND DEATH AY OCCUR. ASPIRATION PNEUMONITIS MAY BE EVIDENCED BY COUGHING, LABORED BREATHING AND CYANOSIS BLUISH SKIN); IN SEVERE CASES DEATH MAY OCCUR.

GRAVATED MEDICAL CONDITIONS
EEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

E SECTION VI FOR SUPPLEMENTAL INFORMATION.

ECTION IV OCCUPATIONAL EXPOSURE LIMITS

	OSHA		ACGIH		OTHER
IU.	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	
	500 PPM		100 PPM	200 PPM	

ECOMMEND THAT LIMITS FOR STODDARD SOLVENT BE USED AS A GUIDE.

CTION V EMERGENCY AND FIRST AID PROCEDURES

YE CONTACT
SH EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

IN CONTACT
EMOVE CONTAMINATED CLOTHING/SHOES. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED.

ALATION
EMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL ESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

ESTION
NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT SPIRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION.

E TO PHYSICIAN
.. MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE NOUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH S LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A FED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

TION VI SUPPLEMENTAL HEALTH INFORMATION

ALE RATS EXPOSED FOR 90 DAYS BY INHALATION TO VAPORS OF SOLVENTS SIMILAR TO COMPONENT 1 SHOWED VIDENCE OF KIDNEY DAMAGE. THE RELEVANCE OF THIS EFFECT TO MAN IS UNKNOWN. IN ONE OF THE STUDIES OW GRADE ANEMIA WAS ALSO OBSERVED.

S EXPOSED FOR 4 MONTHS TO 1700 PPM OF A SOLVENT SIMILAR TO COMPONENT 2 SHOWED EVIDENCE OF MILD AMAGE TO THE LIVER, LUNGS AND KIDNEYS. THESE EFFECTS WERE NOT SEEN IN RATS EXPOSED FOR ONE YEAR 350 PPM OF ANOTHER SIMILAR SOLVENT. RATS EXPOSED TO VAPORS OF A SIMILAR SOLVENT DURING GNANCY SHOWED EMBRYO/FETOTOXICITY AT CONCENTRATIONS PRODUCING MATERNAL TOXICITY.

PRODUCT NAME: MINERAL SPIRITS 135

SECTION VII PHYSICAL DATA

BOILING POINT: 330-390 (DEG F)

SPECIFIC GRAVITY: 0.79 (H2O=1)

VAPOR PRESSURE: 16*@100 DEG. F (MM HG)

MELTING POINT: NOT AVAILABLE (DEG F)

SOLUBILITY: NEGLIGIBLE (IN WATER)

VAPOR DENSITY: 4.8* (AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): <0.1*

*ESTIMATED

APPEARANCE AND ODOR:
LIGHT COLORED LIQUID. HYDROCARBON ODOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:
114 DEG. F (TCC)

FLAMMABLE LIMITS /% VOLUME IN AIR
LOWER: 1 UPPER: 6

EXTINGUISHING MEDIA
USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SUFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS
CAUTION. COMBUSTIBLE. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS
CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

SECTION IX REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING
AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT.

DDITIONAL PROTECTIVE MEASURES
USE EXPLOSION-PRDOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA. THEN Llaunder BEFORE REUSING.

SECTION XI ENVIRONMENTAL PROTECTION

PILL OR LEAK PROCEDURES
CAUTION. COMBUSTIBLE. *** LARGE SPILLS *** ELIMINATE POTENTIAL SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATOR AND OTHER PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS AND SEAL TIGHTLY FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTION AS ABOVE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.

SECTION XII SPECIAL PRECAUTIONS

EEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. EEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.

CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS.

ATIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT.

SECTION XIII TRANSPORTATION REQUIREMENTS

PARTMENT OF TRANSPORTATION CLASSIFICATION:
OMBUSTIBLE LIQUID

O.T. PROPER SHIPPING NAME:
TROLEUM NAPHTHA

THER REQUIREMENTS:
1255. GUIDE SHEET 27.

CTION XIV OTHER REGULATORY CONTROLS

OMPONENT #2 IS THE SUBJECT OF A TSCA SECTION 4 TEST RULE. EXPORT OF THIS PRODUCT IS THEREFORE ROHIBITED WITHOUT NOTIFICATION TO EPA. THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA VENTORY OF CHEMICAL SUBSTANCES.

ECTION XV SPECIAL NOTES

CTION XI - ENVIRONMENTAL PROTECTION HAS BEEN REVISED. THE INFORMATION IN THE "WASTE DISPOSAL" ND "ENVIRONMENT PROTECTION" HAS BEEN REMOVED AND INCLUDED IN THE ATTACHED ENVIRONMENTAL DATA HEET. IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE EOS SHOULD ALWAYS BE COPIED AND SENT TH THE MSDS.

K2271 (RUN 07/18/91)

SAFETY-KLEEN CORP.
PREQUALIFICATION EVALUATION
MATERIAL ANALYSIS

COMPLETE: 07/18/91
CONTROL#: 0102253-9
SAMPLE# : 127172

FLUID RECOVERY
CAMPBELL SOUP CO

ACCEPT
NO ATTACHMENT

** FLUID RECOVERY **

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	DARK BROWN
WATER CONTENT	:	9.4 WT%
NON-VOLATILE RESIDUE	:	8.2 WT% DESCRIPTION: OIL
FLAMMABILITY	:	FLASHED AT 100 F BY SETAFLASH
FLAMMABILITY	:	FLASHED AT 140 F BY SETAFLASH
PH SCREEN:		
PH	:	7.0
RADIOACTIVITY	:	EXTRACT BY METER 6.4
COMMENTS: SMALL AMOUNT OF LIGHT BROWN SOLIDS ON BOTTOM		

UEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT:	[redacted] BTU/LB				
TOTAL FLUORINE	F : <	0.1 WT%	ASH UPON COMBUSTION:	<	0.1 WT%
TOTAL BROMINE	BR: <	0.1 WT%	TOTAL CHLORINE CL:	<	0.1 WT%
			TOTAL SULFUR S :	<	0.1 WT%

"O" Thinner

BTU/Lb

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE YHEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

DATE PREPARED: JANUARY 26, 1989

J. C. HILLETT

BE SAFE

READ OUR PRODUCT
SAFETY INFORMATION ...AND PASS IT ON
(PRODUCT LIABILITY LAW
REQUIRES IT)

SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P. O. BOX 4320
HOUSTON, TX 77210

Campbell Soup (Lab)
P-152 CR 12, Napoleon
Henry County

OHD 987 023 678
DHWM

Pendaflex
Esselte

M E M O R A N D U M

To: Campbell Soup

From: ___ABS_____ (Reviewer); Ohio EPA Legal Office.

Date: November 26, 2014

These files were reviewed to determine whether records contained herein are confidential or otherwise exempt from the disclosure obligations of Ohio Revised Code (ORC) 149.43.

_X__ All files are public

No records were removed based on this review.

___ Some files are not public

Records were removed or redacted for the reasons given below:

___ **Attorney- Client Privilege**, State ex rel. Leslie v. Ohio Hous. Fin. Agency, 105 Ohio St.3d 261, 265 (2005).

___ **Attorney Work Product**, Squire, Sanders & Dempsey, L.L.P. v. Givaudan Flavors Corp., 127 Ohio St.3d 161 (2010).

___ **Confidential Law Enforcement Investigatory Records**, ORC 149.43(A)(1)(h).

___ **Social Security Numbers**, State ex rel. Office of Montgomery County Pub. Defender v. Siroki, 108 Ohio St.3d 207 (2006).

___ **Release Otherwise Prohibited by Law**, (i.e. trade secret, infrastructure and security records, etc.), ORC 149.43(A)(1)(v).

___ **Other Specified Reason**: _____

___ All files are confidential

Should you have any questions regarding this issue, please contact Ohio EPA's Office of Legal Services.

(This memorandum is to remain visibly attached to this file.)

Campbell Soup
P-152 Co Rd 12, Henry Co.

OMB#: 2050-0028 Expires 06/30/2009

SEND COMPLETED FORM TO: The Appropriate State or EPA Regional Office.

United States Environmental Protection Agency

RCRA SUBTITLE C SITE IDENTIFICATION FORM

RECEIVED JUL 21 2008 OHIO E.P.A. NWDO

1. Reason for Submittal (See instructions on page 13.) MARK ALL BOX(ES) THAT APPLY

Reason for Submittal:

- ☐ To provide Initial Notification of Regulated Waste Activity (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities)
- ☑ To provide Subsequent Notification of Regulated Waste Activity (to update site identification information)
- ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application
- ☐ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment #____)
- ☐ As a component of the Hazardous Waste Report

2. Site EPA ID Number (page 14)

EPA ID Number: OHD987023678

3. Site Name (page 14)

Name: Campbell Soup Supply Company

4. Site Location Information (page 14)

Street Address: P-152 County Road 12

City, Town, or Village: Napoleon | State: OH

County Name: Henry | Zip Code: 43545

5. Site Land Type (page 14)

Site Land Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other

6. North American Industry Classification System (NAICS) Code(s) for the Site (page 14)

A. 541380 | B. | C. | D.

7. Site Mailing Address (page 15)

Street or P. O. Box: P.O. Box 311

City, Town, or Village: Napoleon

State: OH

Country: Henry | Zip Code: 43545

8. Site Contact Person (page 15)

First Name: Nathan | MI: L | Last Name: Johnson

Phone Number: 419-592-1010 | Extension: 6691 | Email address: nathan_johnson@campbellsoup.com

9. Operator and Legal Owner of the Site (pages 15 and 16)

A. Name of Site's Operator: Nathan L. Johnson | Date Became Operator (mm/dd/yyyy): 06/24/2008

Operator Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other

B. Name of Site's Legal Owner: Campbell Soup Supply Company | Date Became Owner (mm/dd/yyyy): 07/17/1991

Owner Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other

EPA ID NO: | O | H | D | | 9 | 8 | 7 | | 0 | 2 | 3 | | 6 | 7 | 8 |

OMB#: 2050-0028 Expires 06/30/2009

9. Legal Owner (Continued) Address	**Street or P. O. Box:** P.O. Box 311	
	City, Town, or Village: Napoleon	
	State: OH	
	Country: Henry	**Zip Code:** 43545

10. Type of Regulated Waste Activity
Mark "Yes" or "No" for all activities; complete any additional boxes as instructed. (See instructions on pages 17 to 20.)

A. Hazardous Waste Activities
Complete all parts for 1 through 6.

Y☑ N☐ **1. Generator of Hazardous Waste**
If "Yes", choose only one of the following - a, b, or c.

- ☐ a. LQG: Greater than 1,000 kg/mo (2,200 lbs./mo.) of non-acute hazardous waste; or
- ☐ b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs./mo.) of non-acute hazardous waste; or
- ☑ c. CESQG: Less than 100 kg/mo (220 lbs./mo.) of non-acute hazardous waste

In addition, indicate other generator activities.

Y☐ N☑ d. United States Importer of Hazardous Waste

Y☐ N☑ e. Mixed Waste (hazardous and radioactive) Generator

Y☐ N☑ **2. Transporter of Hazardous Waste**

Y☐ N☑ **3. Treater, Storer, or Disposer of Hazardous Waste (at your site)** Note: A hazardous waste permit is required for this activity.

Y☐ N☑ **4. Recycler of Hazardous Waste (at your site)**

Y☐ N☑ **5. Exempt Boiler and/or Industrial Furnace**
If "Yes", mark each that applies.
- ☐ a. Small Quantity On-site Burner Exemption
- ☐ b. Smelting, Melting, and Refining

Y☐ N☑ **6. Underground Injection Control**

B. Universal Waste Activities

Y☐ N☑ **1. Large Quantity Handler of Universal Waste (accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal mark all boxes that apply:**

	Manage
a. Batteries	☐
b. Pesticides	☐
c. Mercury containing equipment	☐
d. Lamps	☐
e. Other (specify)	☐
f. Other (specify) _____	☐
g. Other (specify) _____	☐

Y☐ N☑ **2. Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities
Mark all boxes that apply.

Y☐ N☑ **1. Used Oil Transporter**
If "Yes", mark each that applies.
- ☐ a. Transporter
- ☐ b. Transfer Facility

Y☐ N☑ **2. Used Oil Processor and/or Re-refiner**
If "Yes", mark each that applies.
- ☐ a. Processor
- ☐ b. Re-refiner

Y☐ N☑ **3. Off-Specification Used Oil Burner**

Y☐ N☑ **4. Used Oil Fuel Marketer**
If "Yes", mark each that applies.
- ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

11. Description of Hazardous Wastes (See instructions on page 21.)

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D035	F002	F003			

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed for waste codes.

12. Comments (See instructions on page 21.)

Change from SQG to CESQG

13. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
For the RCRA Hazardous Waste Part A Permit Application, all operator(s) and owner(s) must sign (see 40 CFR 270.10 (b) and 270.11).
(See instructions on page 21.)

Signature of operator, owner, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
Nathan L. Johnson	Nathan L. Johnson - Laboratory Manager	06/24/2008

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Rd.
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

April 9, 2009

Mr. Geoff Sans
Campbell Soup Supply Co.
12-773 State Route 110
Napoleon, Ohio 43545

Re: Corrective Action Site Visit of August 11, 2008
OHD 987 046 703, V-8 Beverage Plant, 12-995 State Route 110
OHD 987 023 678, Chemical Residue Analytical Lab, P-152 County Road 12

Dear Mr. Sans:

On August 11, 2008, Ohio EPA met with Campbell Soup Supply Co. (CSS) to discuss RCRA Corrective Action and tour the facility to identify units that may be subject to corrective action. CSS was represented by Geoff Sans, Manager, Services & Utilities; Jim Koskan, Area Manager Services & Utilities, and Mike Maringer, consultant and former employee. Ohio EPA was represented by Dawn Pleiman and Michael Terpinski. The meeting commenced with a discussion of the other two Campbell Soup properties identified by Ohio EPA as being subject to RCRA corrective action, the V-8 Beverage Plant and the Chemical Residue Analytical Lab.

Discussions between both parties determined that although the Beverage Plant and Chemical Residue Analytical Lab were included in a 1994 letter which cited CSS for unpermitted storage and treatment of hazardous wastes in a (coal) waste pile prior to burning in an on-site boiler: the waste pile was located on the Main Plant's property. When soil beneath the waste pile was sampled in 1994 and found to have not negatively impacted the soil, the violation was abated by Ohio EPA.

In March of 2000, it was brought to Ohio EPA's attention that waste coating material used by CSS on steel cans as a rust inhibitor was stored on-site from 1980 to 1981. From roughly 1981 to 1993 the liquid phase of the waste in the drums was either burned directly in Campbell's boilers or poured onto a coal pile and then burned in the boilers. The semi-solid waste in the drums was placed in clay-lined pits and in 1983 the material was mixed with sand prior to excavation and disposal at a landfill. All three CSS Napoleon facilities were cited with an ORC 3734.02(E) violation for unpermitted treatment, storage and disposal (in a May 16, 2000, Ohio EPA correspondence).

Since all of the violations occurred on the Main Plant's property, the corrective action site visit only needed to focus on the Main Plant. Ohio EPA also concluded that the Beverage Plant and the Chemical Residue Lab should be removed from Ohio EPA's list of facilities subject to RCRA Corrective Action. Therefore, with this letter, Ohio EPA wishes to correct any errors in the Agency's records and U.S. EPA's RCRA Info database. In summary, the V-8 Beverage Plant, located at 12-995 State Route 110, and the Chemical Lab, located at P-152 County Road 12, in Napoleon Ohio were not treatment, storage or disposal facilities, and **are not subject to the RCRA Corrective Action requirements under Ohio law** as a result of the Ohio Revised Code 3734.02(E)(F) violations cited in Ohio EPA Notice Of Violation letters dated April 26, 1994 and May 16, 2000.

The Main Plant (OHD 005 419 171) remains subject to RCRA Corrective Action and is addressed in a separate correspondence.

If you have any questions on this correspondence, please do not hesitate to contact me at (419) 373-3148.

Sincerely,

Dawn Pleiman

Dawn Pleiman
Division of Hazardous Waste Management

/lb

pc: NWDO File: DHWM, Campbell Soup, V-8 Beverage Plant and Chemical Residue Analytical Lab, Henry County, Corrective Action
Cindy Lohrbach, DHWM, NWDO
Michael Terpinski, DHWM, NWDO

ec: Jeremy Carroll, Manager, RISS, DHWM, CO, Central File
Ed Lim, Manager, ERAS, DHWM
Dawn Pleiman, DHWM, NWDO
Don North, DHWM, NWDO

Campbell's Soup

RECEIVED
JUN 19 2000
OHIO E.P.A.
N.W.D.O.

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
122 South Front St.
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
Lazarus Government Center
P. O. Box 1049
Columbus, OH 43216-1049

HAZARDOUS WASTE ENFORCEMENT COMMITTEE
CASE ASSIGNMENT

DATE: 6/15/00

Company Name: Campbell's Soup Company

U.S. EPA ID#: OHD987046903, OHD987023678
OHD005419171

Location: Napoleon

County: Henry

District: NWDO

Date Received Central Office: 6/15/00

Assigned To:

Attorney: Anderson Date Rec'd: _____

CAS Staff: Sarvis / Smith Date Rec'd: _____

Inspector: Mike Terpinski

Allen Rec'd: _____
Sarvis Rec'd: _____
Neumann Rec'd: _____

HWEC Date: July 7, 2000

Date of Inspection: _____

Recommendation: _____

Date Final Action Due: _____

Priority: SNC SV

Campbell's Soup

Campbell SOUP Company

NAPOLEON, OHIO 43545

May 22, 2000

RECEIVED

MAY 2 3 2000

OHIO E.P.A.
N.W.D.O.

Ohio Environmental Protection Agency
Division of Hazardous Waste Management
c/o Mr. Michael R. Terpinski, Environmental Specialist
347 N. Dunbridge Road
Bowling Green, Ohio 43402

Re: Henry County, Campbell Soup Company, Hazardous Waste Notice of Violation, OHD 987046703, OHD 987023678, and OHD 005419171.

Dear Mr. Michael R. Terpinski:

This is in response to the notice of violation letter dated May 16, 2000. The following is our response and further explanation of the events that took place involving the temporary holding pit area.

Spent solvent from the former can manufacturing operations at the Napoleon Plant was stored in 55-gallon drums and eventually used as a boiler fuel supplement (Boiler and Industrial Furnace 'BIF' Small Quantity Burner Exemption). Over time solids accumulated in the drums made it difficult to handle. To alleviate the solids, two earth dikes were constructed using a natural clay liner and compacted. The overall dimensions totaled approximately 20 feet wide by 35 feet long, with a depth of 2 ½ feet.

This practice was discontinued and the partially filled dikes were decommissioned in 1983. A local contractor using sand and natural soil excavated the dikes and hauled the material to the Evergreen Landfill for disposal. The material was analyzed by Evergreen at the landfill for disposal.

The earthen dikes were a one-time construction to remove semi-liquid solids from the drums. The practice was discontinued in 1983 with the excavation of the dikes.

We became aware of this practice, as we indicated in our March 23rd, 2000 meeting with you, and we immediately conducted an assessment of the area that resulted in the report we submitted to you.

Campbell Soup plans to conduct a complete investigation to delineate the contamination in the former holding pit area. A work plan will be submitted to your office for review and approval before implementation. We, also, shall submit a closure plan for hazardous waste storage and disposal area, to the Ohio EPA as is required by the applicable regulations.

We will call your office to arrange for a meeting to discuss the work plan and the various closure strategies.

Sincerely,

M. N. Maringer

Michael N. Maringer
Manager, Services & Utilities
Campbell Soup Supply Co.
P.O. Box 311
Napoleon, Ohio 43545
Ph. 419.592.1010 - Extension 6343

cc: Dr. O. Aly, Director of Environmental Affairs
Mr. R. Furbee, Vice President of Central Region

Re: Henry County
Campbell's Soup Company
OHD 987046703, OHD 987023678,
and OHD 005419171
Hazardous Waste
Notice of Violation

May 16, 2000

Mr. Michael Maringer
Manager, Service and Utilities
Campbell's Soup Company
East Maumee Avenue
Napoleon, Ohio 43545

Dear Mr. Maringer:

On March 23, 2000, a meeting between Campbell's and the Ohio Environmental Protection Agency (Ohio EPA) was held at Ohio EPA's Northwest District Office (NWDO). Campbell's was represented by Dr. Osman Aly and yourself. Ohio EPA was represented by Lorma Wendt (DHWM) and myself.

The following information was revealed during the March 23, 2000 meeting:

While responding to an Ohio EPA request for information relating to the Imthurn drum site investigation, Campbell's conducted numerous employee interviews. These interviews led to the discovery of another predicament from Campbell's past.

Campbell's is a manufacturer of soups, sauces, pork and beans, Splash fruit and vegetable juice, and V-8 vegetable juice. Cans were manufactured on-site until July 1998. Coating machines applied a rust inhibitor, similar to an enamel paint, to the 2-piece steel cans to increase durability. The coating machines needed periodic cleaning (performed with solvents classified as both listed and characteristically-hazardous wastes), thus generating hazardous waste.

The coating material waste consisted of two phases; a liquid phase and a sludge-like phase. Approximately 2000 of these drums from the canning plant were stored on-site behind the container plant on a concrete pad. Dr. Aly stated that during the energy crisis of the late 1970s, Mr. Ellis Imthurn approached Campbell's and asked if he could have the drums to use the waste to fuel the boilers in the abandoned school in which he resided. Dr. Aly stated that this was a one-time agreement that concluded in 1979. According to both Dr. Aly and yourself, the drums were simply stored on-site at the Napoleon plant from 1980 to 1981. According to Campbell's, the liquid phase was either burned directly in Campbell's boilers or placed on a coal pile, then burned in the boilers from 1981 to January 1993.

The semi-solid phase of this waste was not amenable to burning. Therefore, too many drums of the combined waste were being generated (you stated that approximately 22 to 100 gallons of the liquid phase waste was poured on the coal pile per month). The liquid phase was siphoned off and burned in the boilers. The semi-solid phase was dumped into two on-site holding pits from 1981 to 1983. The pits were reportedly lined with natural clay that was obtained on-site and compacted prior to placement of any sludges. You stated that the pits totaled approximately 20 feet by 40 feet and were 2½ to 3 feet deep. There was roughly 2 feet of waste in each pit. In 1983, the material was excavated and disposed of at Evergreen Landfill in Northwood, Ohio. The sludge was mixed with sand prior to off-site disposal.

The coating material waste was classified as a hazardous waste because of its ignitability. However, soil sampling data from the former pit area shows concentrations of compounds (xylene, acetone, methyl isobutyl ketone, ethyl benzene, and methyl ethyl ketone) typically found in F-listed hazardous wastes. Material Safety Data Sheets (MSDSs) for the coating materials and solvents used at the Napoleon plant in the early 1980s provided by Campbell's on April 21, 2000, confirms the presence of these materials. Therefore, the materials disposed of in the holding pit were listed hazardous wastes as well.

On December 2 and 3, 1999, HSI GeoTrans conducted sampling at the former holding pit area. The area was identified based on interviews with Campbell's employees. The results of the sampling were presented in a report titled Limited Subsurface Soil Investigation: Former Holding Pit Area received March 23, 2000. The report shows residual volatile organic chemical (VOC) contamination at depths as great as 10 feet below ground surface as a result of Campbell's former waste management techniques.

Because Campbell's has performed unpermitted treatment (evaporation of materials dumped in the holding pits), storage (from 1980 to 1981), and disposal (from 1981-1983) of hazardous waste, they are in violation of the following hazardous waste law:

1. Chapter 3734.02 (E) of the Ohio Revised Code states in part that: "[N]o person shall establish or operate a hazardous waste facility, or use a solid waste facility for the storage, treatment, or disposal of any hazardous waste, without a hazardous waste facility installation and operation permit from the hazardous waste facility board..."

   Campbell's storage of hazardous waste on-site from 1980 to 1981 constitutes unpermitted storage of hazardous waste. Campbell's is a Large Quantity Generator (LQG) of hazardous waste, and may only store waste on-site for ninety (90) days.

   When the semi-solid hazardous wastes were dumped into the holding pits on Campbell's property, they dried and were mixed with sand prior to off-site disposal at Evergreen Landfill in Northwood, Ohio. This evaporation constitutes unpermitted treatment of hazardous waste. The mixing of this material with sand may also constitute unpermitted treatment if the sand were introduced before the waste hardened.

The hazardous wastes dumped into on-site holding pits at Campbell's from 1981 to 1983 also constitutes improper disposal of hazardous waste. Campbell's does not have a RCRA Part B permit allowing for the treatment, storage, or disposal of hazardous waste.

Please respond, in writing, to this Notice of Violation (NOV) within ten (10) days. Your response must include all actions and timetables necessary to demonstrate compliance. *In addition, a copy of the closure plan for the hazardous waste storage and disposal areas must be submitted to Ohio EPA, NWDO within ninety (90) days of receipt of this letter.* Please call me to arrange a meeting to discuss the document entitled Limited Subsurface Soil Investigation: Former Holding Pit Area. The meeting will also be helpful in discussing various closure strategies available to Campbell's.

Failure to list specific deficiencies in this letter does not relieve you from the responsibility of complying with all applicable regulations.

If you have any questions, feel free to contact me at 419-373-3070.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/sw

pc: Frances Kovac, Legal, CO
Lorma Wendt, DHWM, NWDO
Cindy Lohrbach, DHWM, NWDO
DHWM, NWDO File
ec: Colleen Weaver, DHWM, NWDO

Campbell Soup

Campbell SOUP Company

NAPOLEON, OHIO 43545

RECEIVED
JUL 25 1995
OHIO E.P.A.
N.W.D.O.

Chemical Residue Analytical Lab
P-152 Road 12
Napoleon, Ohio 43545
July 19, 1995

Mr. Gary Deutschman
Department of Hazardous Waste
NW District Office
347 N. Dunbridge Road
Bowling Green, Ohio 43402

Dear Mr. Deutschman:

Enclosed is a subsequent Notification of Regulated Waste Activity (8700-12) for Installation ID Number OHD987023678. The installation contact has changed.

Sincerely,

Kayle A. Dunajski

Kayle A. Dunajski

Form Approved. OMB No. 2050-0028. Expires 10-31-91
GSA No. 0246-EPA-GT

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law *(Section 3010 of the Resource Conservation and Recovery Act)*.

EPA Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received (For Official Use Only)

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[ ] A. First Notification [X] B. Subsequent Notification *(complete item C)*

C. Installation's EPA ID Number: OHD987023678

II. Name of Installation *(Include company and specific site name)* 9390696037

CAMPBELL SOUP COMPANY

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street: P-152 COUNTY ROAD 12

Street (continued):

City or Town: NAPOLEON | State: OH | ZIP Code: 43545-

County Code: 069 | County Name: HENRY

IV. Installation Mailing Address *(See instructions)*

Street or P.O. Box: SAME

City or Town: | State: | ZIP Code: -

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name *(last)*: DUNAJSKI | *(first)*: KAYLE

Job Title: CHEMIST | Phone Number *(area code and number)*: 419-592-1010

VI. Installation Contact Address *(See instructions)*

A. Contact Address Location [X] Mailing [ ] | B. Street or P.O. Box:

City or Town: | State: | ZIP Code: -

VII. Ownership *(See instructions)*

A. Name of Installation's Legal Owner: CAMPBELL SOUP COMPANY

Street, P.O. Box, or Route Number: P-152 COUNTY RD 12

City or Town: NAPOLEON | State: OH | ZIP Code: 43545-

Phone Number *(area code and number)*: 419-592-1010 | B. Land Type: P | C. Owner Type: P | D. Change of Owner Indicator: Yes [ ] No [ ] | (Date Changed) Month Day Year:

EPA Form 8700-12 (01-90) Previous edition is obsolete.

Continue on reverse

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028. Expires 10-31-91
GSA No. 0246-EPA-OT

ID – For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions.)*

A. Hazardous Waste Activity

1. Generator (See Instructions)
   - [ ] a. Greater than 1000kg/mo (2,200 lbs.)
   - [X] b. 100 to 1000 kg/mo (220 - 2,200 lbs.)
   - [ ] c. Less than 100 kg/mo (220 lbs.)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - [ ] a. For own waste only
   - [ ] b. For commercial purposes

   Mode of Transportation
   - [ ] 1. Air
   - [ ] 2. Rail
   - [ ] 3. Highway
   - [ ] 4. Water
   - [ ] 5. Other - specify
3. [ ] Treater, Storer, Disposer (at installation) Note: A permit is required for this activity; see instructions.
4. Hazardous Waste Fuel
   - [ ] a. Generator Marketing to Burner
   - [ ] b. Other Marketers
   - [ ] c. Burner - indicate device(s) - Type of Combustion Device
     - [ ] 1. Utility Boiler
     - [ ] 2. Industrial Boiler
     - [ ] 3. Industrial Furnace
5. [ ] Underground Injection Control

B. Used Oil Fuel Activities

1. Off-Specification Used Oil Fuel
   - [ ] a. Generator Marketing to Burner
   - [ ] b. Other Markerer
   - [ ] c. Burner - indicate device(s) - Type of Combustion Device
     - [ ] 1. Utility Boiler
     - [ ] 2. Industrial Boiler
     - [ ] 3. Industrial Furnace
2. [ ] Specification Used Oil Fuel Marketer (or On-site Burner) Who First Claims the Oil Meets the Specification

IX. Description of Regulated Wastes *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. *(See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. EP Toxic (D000)	(List specific EPA hazardous waste number(s) for the EP Toxic contaminant(s))
X			X	D022

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33. See instructions if you need to list more than 12 waste codes.)

1	2	3	4	5	6
F001	F003	F005			
7	**8**	**9**	**10**	**11**	**12**

C. Other Wastes. (State or other wastes requiring an I.D. number. See instructions.)

1	2	3	4	5	6

X. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature	Name and Official Title *(type or print)*	Date Signed
David J. Silveus	David J. Silveus ~~Research Associate~~	7-13-95

XI. Comments

Installation contact was changed.

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

OhioEPA
State of Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461 **FAX** (419) 352-8468

George V. Voinovich
Governor

Re: Campbell's Soup
OHD 987023678
OHD 987046703
Hazardous Waste
Henry County
Return to Compliance

December 12, 1994

Mr. Herb Salsbury, Area Manager
Environmental Control
Box 311 State Route 110
Napoleon, Ohio 43545

Dear Mr. Salsbury:

On April 5, 1994, the Ohio Environmental Protection Agency (Ohio EPA) conducted a hazardous waste compliance evaluation inspection of Campbell Soup Company (Campbell's) located in Napoleon, Ohio. This inspection was conducted in order to determine Campbell's compliance with Ohio's hazardous waste generator regulations as adopted under Chapter 3745 of the Ohio Administrative Code (OAC).

During the inspection, violations of Ohio's hazardous waste regulations were noted. Campbell's was notified of these findings in a letter dated April 26, 1994. On May 4, 1994, Campbell's submitted a response to the Agency's Notice of Violation (NOV) containing a timetable for actions to be undertaken to return to compliance for the two cited violations. A second submission from Campbell's was received June 1, 1994. This communication included a proposal from Law Engineering and Environmental Services (Law) for the sampling of the area underlying coal pile which had ignitable hazardous wastes placed on it prior to January, 1993. The Agency responded to this submission in a letter dated June 16, 1994. On September 12, 1994, this office received a revised work plan for the soils underlying the coal pile to which solvent had previously been applied. On September 23, 1994, this office notified Campbell's that the work plan for the sampling of the coal piles appeared adequate.

On December 5, 1994, this office received a copy of Law's site assessment for the coal piles at Campbell's. The results of Law's sampling and analysis indicate that the practice of pouring solvents on one of the coal piles prior to burning the coal in a boiler has not resulted in elevated levels of any solvents poured on the coal pile in the soil underlying that coal pile.

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(revised 12/93)

Because Campbell's has demonstrated that the application of solvent did not impact the soils underlying the coal pile, the violation of ORC Section 3734.02 cited in the April 26, 1994 NOV is considered abated.

Campbell's is considered returned to compliance for all violations cited in the April 5, 1994 NOV.

Campbell's is reminded that the practice of pouring waste solvent on a coal pile prior to the burning of coal in a boiler for the purpose of energy recovery does not meet the requirements of OAC Chapter 3745-58 ("Miscellaneous Methods of Waste Treatment") and must not occur in the future.

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

If you have any questions, feel free to contact me.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/rab

Enclosures

pc: Laurie Stevenson, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
NWDO File

OhioEPA
State of Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461 FAX (419) 352-8468

George V. Voinovich
Governor

Re: Campbell's Soup
OHD 987023678
OHD 987046703
Hazardous Waste
Henry County

September 23, 1994

Mr. Herb Salsbury, Area Manager
Environmental Control
Box 311 State Route 110
Napoleon, Ohio 43545

Dear Mr. Salsbury:

On April 5, 1994, the Ohio Environmental Protection Agency (Ohio EPA) conducted a hazardous waste compliance evaluation inspection of Campbell Soup Company (Campbell's) located in Napoleon, Ohio. This inspection was conducted in order to determine Campbell's compliance with Ohio's hazardous waste generator regulations as adopted under Chapter 3745 of the Ohio Administrative Code (OAC).

During the inspection, violations of Ohio's hazardous waste regulations were noted. Campbell's was notified of these findings in a letter dated April 26, 1994. On May 4, 1994, Campbell's submitted a response to the Agency's Notice of Violation (NOV) containing a timetable for when actions were to be undertaken to return to compliance for the two cited violations. A second submission from Campbell's was received June 1, 1994. This communication included a proposal from Law Engineering and Environmental Services (Law) for the sampling of the area underlying coal pile which had ignitable hazardous wastes placed on it prior to January, 1993. The Agency responded to this submission in a letter dated June 16, 1994. On September 12, 1994, this office received a revised work plan for the soils underlying the coal pile to which solvent had previously been applied.

The work plan submitted by Law Engineering and Environmental Services appears to be adequate. Campbell's may proceed with the implementation of this work plan. The Agency requests notification at least 24 hours prior to sampling activities to allow an inspector to observe these activities.

If the pouring of solvents on the coal pile has impacted the underlying soil, closure of this area in accordance with OAC Rules 3745-66-11 through 3745-66-16 will be necessary. Campbell's compliance with respect to the closure requirements will be further evaluated after the analytical results are submitted to Ohio EPA, NWDO.

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(revised 12/93)

The violation of ORC Section 3734.02 cited in the April 26, 1994 NOV remains outstanding until Campbell's can demonstrate that the application of solvent did not impact the soils underlying the coal pile.

Please be advised that failure to comply with applicable hazardous waste rules may be cause for enforcement action by this Agency pursuant to chapter 3734 of the Ohio Revised Code.

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

If you have any questions, feel free to contact me.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/rab

pc: Laurie Stevenson, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
NWDO File

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461 **FAX** (419) 352-8468

George V. Voinovich
Governor

Re: Campbell's Soup
OHD 987023678
OHD 987046703
Hazardous Waste
Henry County
Partial Return to Compliance

June 29, 1994

Mr. Herb Salsbury, Area Manager
Environmental Control
Box 311 State Route 110
Napoleon, Ohio 43545

Dear Mr. Salsbury:

On April 5, 1994, the Ohio Environmental Protection Agency (Ohio EPA) conducted a hazardous waste compliance evaluation inspection of Campbell Soup Company (Campbell's) located in Napoleon, Ohio. This inspection was conducted in order to determine Campbell's compliance with Ohio's hazardous waste generator regulations as adopted under Chapter 3745 of the Ohio Administrative Code (OAC).

During the inspection, violations of Ohio's hazardous waste regulations were noted. Campbell's was notified of these findings in a letter dated April 26, 1994. Campbell's responded to this NOV in letters dated May 4, 1994, June 1, 1994, and June 22, 1994. This letter serves to address Campbell's latest response and to appraise you of the current regulatory status of your facility.

The following violations of Ohio's hazardous waste rules were noted in the April 26, 1994 letter to Campbell's:

1. **Ohio Administrative Code (OAC) Rule 3745-65-33** Campbell's does not test all required spill control, decontamination, fire, and communications equipment in the main plant on a weekly basis.

   On June 22, 1994, this office received a copy of the weekly inspection log showing eight weeks' inspections of Campbell's fire extinguishers. *With this information, this violation is considered abated.*

2. **Ohio Revised Code (ORC) 3734.02(F)** Prior to January, 1993, Campbell's stored and treated ignitable hazardous wastes in a waste pile prior to burning in an on-site boiler without a hazardous waste installation and operation permit or a permit by rule, in violation of ORC section 3734.02(E)(F). Between twenty-two (22) and one hundred (100) gallons per month were poured on the pile and burned.

Campbell's was to obtain samples from beneath the coal pile where solvent was previously poured and from the area beneath the coal pile which was not impacted by this activity. On June 1, 1994, this office received a copy of the sampling strategy proposed by Law Engineering and Environmental Services. Comments to Law's proposed sampling strategy were supplied by the Agency in a letter dated June 16, 1994.

Campbell's is considered returned to compliance for OAC Rule 3745-65-33. The violation of ORC Section 3734.02(F) remains outstanding.

Please be advised that failure to comply with applicable hazardous waste rules may be cause for enforcement action by this Agency pursuant to chapter 3734 of the Ohio Revised Code.

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

If you have any questions, feel free to contact me.

Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/kje

pc: Laurie Stevenson, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
NWDO File

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461 **FAX** (419) 352-8468

George V. Voinovich
Governor

Re: Campbell's Soup
OHD 987023678
OHD 987046703
Hazardous Waste
Henry County

June 16, 1994

Mr. Herb Salsbury, Area Manager
Environmental Control
Box 311 State Route 110
Napoleon, Ohio 43545

Dear Mr. Salsbury:

On April 5, 1994, the Ohio Environmental Protection Agency (Ohio EPA) conducted a hazardous waste compliance evaluation inspection of Campbell Soup Company (Campbell's) located in Napoleon, Ohio. This inspection was conducted in order to determine Campbell's compliance with Ohio's hazardous waste generator regulations as adopted under Chapter 3745 of the Ohio Administrative Code (OAC).

During the inspection, violations of Ohio's hazardous waste regulations were noted. Campbell's was notified of these findings in a letter dated April 26, 1994. On May 4, 1994, Campbell's submitted a response to the Agency's Notice of Violation (NOV) containing a timetable for when actions were to be undertaken to return to compliance for the two cited violations. A second submission from Campbell's was received June 1, 1994. This communication included a proposal from Law Engineering and Environmental Services (Law) for the sampling of the area underlying coal pile which had ignitable hazardous wastes placed on it prior to January, 1993.

This letter serves to respond to your June 1, 1994 correspondence, and provide the current hazardous waste compliance status of your facility.

The following violations of Ohio's hazardous waste rules were noted in the April 26, 1994 letter to Campbell's:

1. **Ohio Administrative Code (OAC) Rule 3745-65-33** Campbell's does not test all required spill control, decontamination, fire, and communications equipment in the main plant on a weekly basis.

   Campbell's was to begin conducting weekly inspections and submit a copy of one month's inspections to OEPA, NWDO to demonstrate abatement of this violation. In our June 15, 1994 telephone conversation you indicated that this information will be sent soon.

2. **Ohio Revised Code (ORC) 3734.02(F)** Prior to January, 1993, Campbell's stored and treated ignitable hazardous wastes in a waste pile prior to burning in an on-site boiler without a hazardous waste installation and operation permit or a permit by rule, in violation of ORC section 3734.02(E)(F). Between twenty-two (22) and one hundred (100) gallons per month were poured on the pile and burned.

Campbell's was to obtain samples from beneath the coal pile where solvent was previously poured and from the area beneath the coal pile which was not impacted by this activity. On June 1, 1994, this office received a copy of the sampling strategy proposed by Law Engineering and Environmental Services. The following comments are in response to Law's proposed sampling strategy:

a) Sampling of the area underlying the coal pile not impacted by the addition of solvents must be addressed. While there is mention of one soil boring being taken from the east side of the coal storage and mixing area for background characterization purposes, it is not clear whether this sample is to be taken as a background sample for the purpose of comparing the rest of the samples to the other coal pile or to virgin soil.

b) Prior to sampling, a sampling map must be submitted which shows the location of all sampling points for this event.

c) The analytical methods for testing soil samples are not stated in the sampling strategy. Campbell's must use USEPA Method 8240 for volatile organic chemicals (VOCs) and USEPA Method 8270 for semivolatile organic chemicals (SVOCs).

If the pouring of solvents on the coal pile has impacted the underlying soil, closure of this area in accordance with OAC Rules 3745-66-11 through 3745-66-16 will be necessary. Campbell's compliance with respect to the closure requirements will be further evaluated after the analytical results are submitted to OEPA, NWDO.

The violations cited in the April 26, 1994 NOV remain outstanding.

Please be advised that failure to comply with applicable hazardous waste rules may be cause for enforcement action by this Agency pursuant to chapter 3734 of the Ohio Revised Code.

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

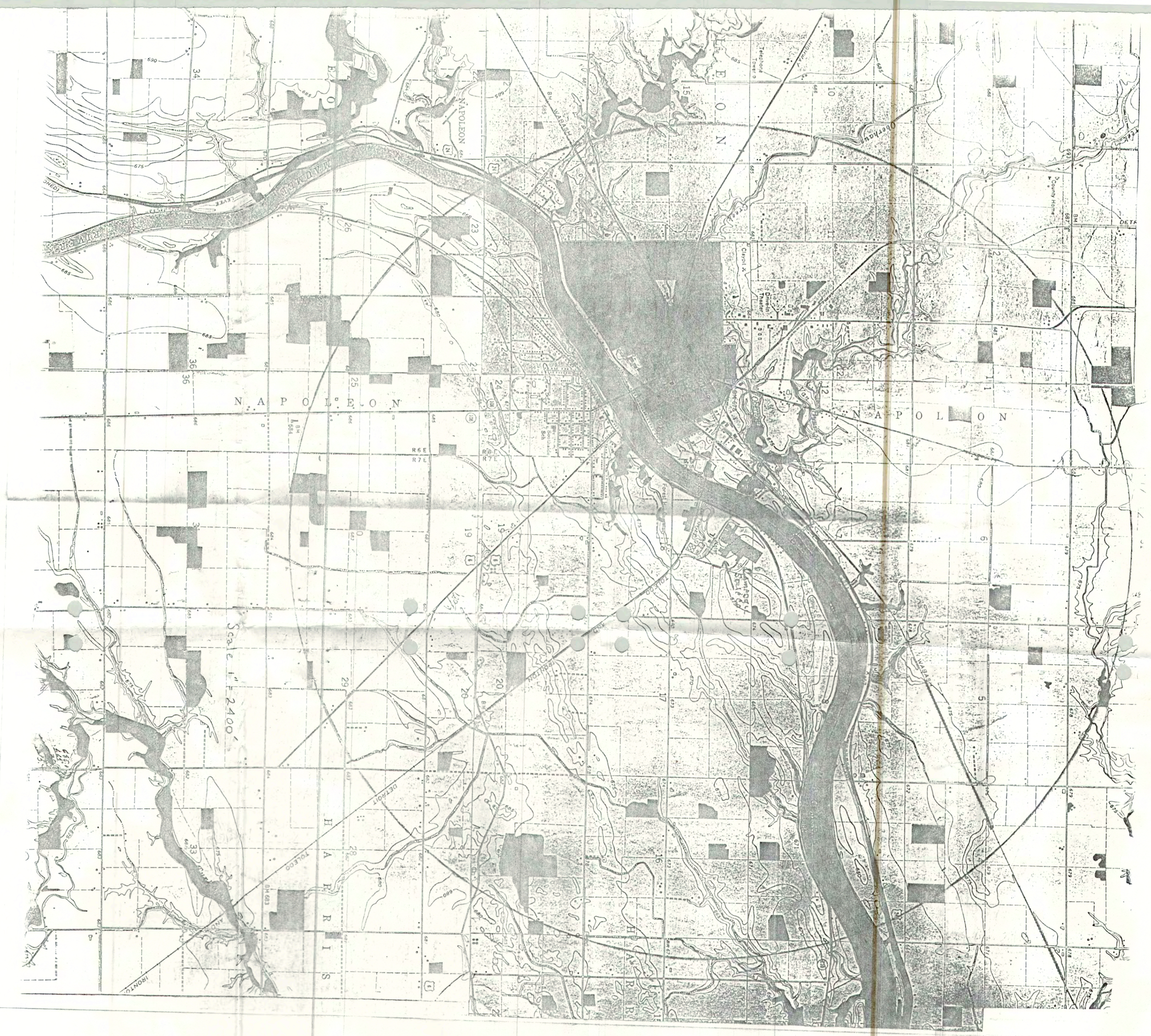
If you have any questions, feel free to contact me.

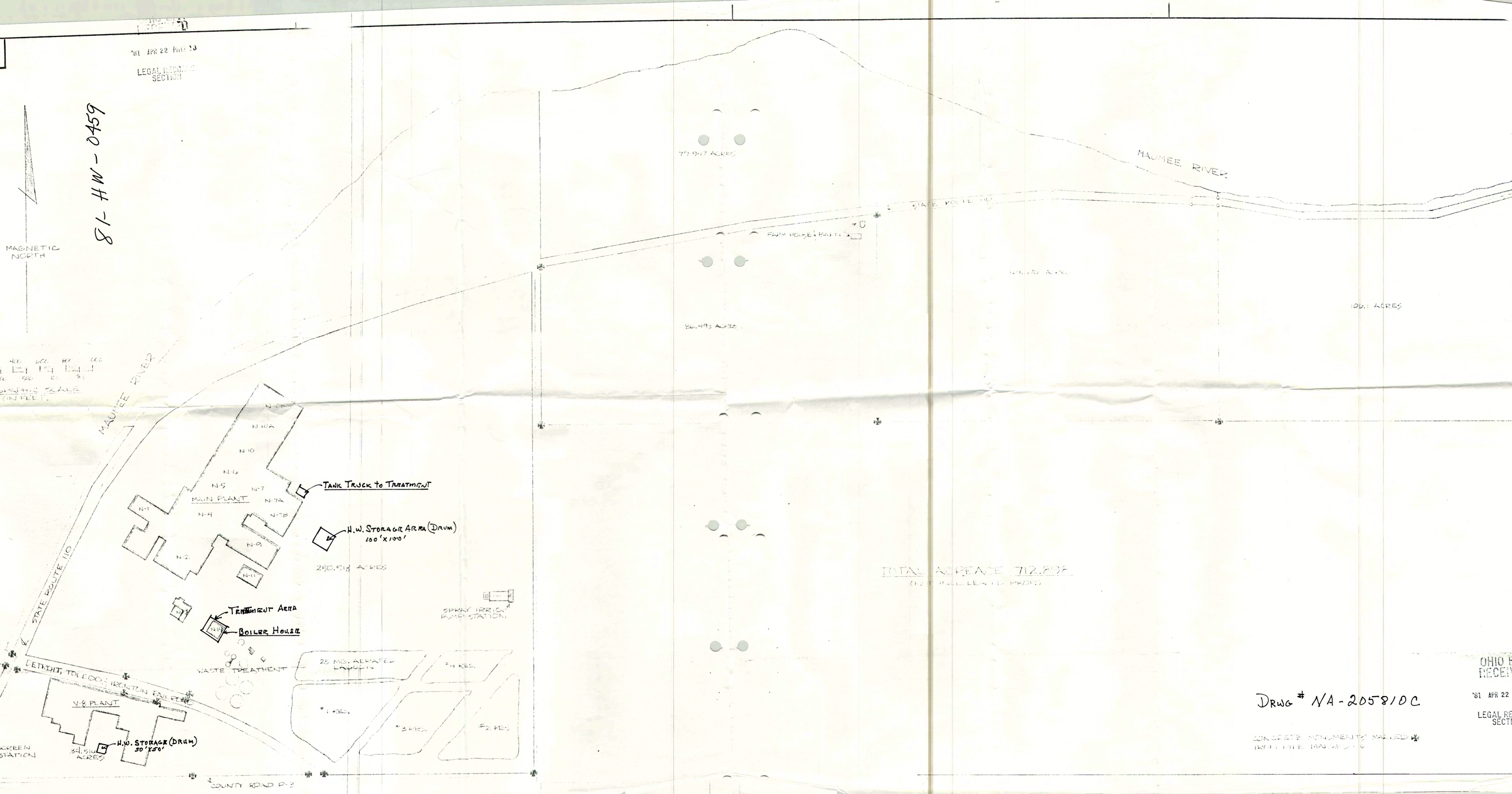
Sincerely,

Michael R. Terpinski
Division of Hazardous Waste Management

/jks

pc: Laurie Stevenson, DHWM, CO
Cindy Lohrbach, DHWM, NWDO
NWDO File


NAPOLEON
NAPOLEON
NAPOLEON
HARRIS
HARRIS
NAPOLEON
Scale 1" = 2400'
R6E
R7E
DETROIT
TOLEDO
IRONTON
WABASH
County Home
Telephone Tower
Drive-in Theater
Clayton
Forest
Fairground
Southside Sch
Campground
Oberhaus
Van



'81 APR 22 PM12 13
LEGAL RECORDS SECTION
81-HW-0459
MAGNETIC NORTH
MAUMEE RIVER
STATE ROUTE 110
FARM HOUSE & BARN
79.947 ACRES
86.493 ACRES
106.1 ACRES
N-10A
N-10
N-6
N-5
N-7
N-7A
N-7B
N-1
N-4
N-2
N-9
N-11
MAIN PLANT
TANK TRUCK to TREATMENT
H.W. STORAGE AREA (DRUM) 100'x100'
250.518 ACRES
TREATMENT AREA
BOILER HOUSE
SPRAY IRRIG. PUMP STATION
WASTE TREATMENT
25 MG. AERATED LAGOON
#4 RES.
#1 RES.
#3 RES.
#2 RES.
DETROIT, TOLEDO & IRONTON RAILROAD
V-8 PLANT
H.W. STORAGE (DRUM) 50'x50'
34.516 ACRES
COUNTY ROAD P-3
TOTAL ACREAGE 712.898
DRWG # NA-205810C
OHIO E
RECEIV
'81 APR 22
LEGAL RE
SECTI

SITE PLAN

SCALE: 1"=150'

MAUMEE RIVER

STATE HIGHWAY 110 (MAUMEE AVE.)

WI-1 MAIN LOW SERVICE PUMPING SITE NEAR INTERSECTION OF W. MAUMEE AVE. & WALNUT ST. @ RIVER APPROX. 1 1/2 MILES BEVERAGE PLANT LOW SERVICE

WI-2 BEVERAGE PLANT LOW SERVICE PUMPING SITE

SW-3 WW 001

SW-1

COUNTY ROAD P-3

400'

280'

103,130 SQ. FT.

TRUCK PARKING

TRUCK WELL

COVERED DOCK

V-7 ROOM

PASTE ROOM

PROCESSING & PACKAGING

COOLER

TRUCK WELL

WAREHOUSE

WAREHOUSE

TRUCK WELL

BEVERAGE PLANT PARKING LOT

HO-1

HW-3

UO-2

BASE LINE "B"

BLDG. N-1 OFFICE, LOCKERS & CAFETERIA

BLDG. N-2 INGREDIENTS RECEIVING & STORAGE BUILDING

BLDG. N-3

BLDG. N-4 MANUFACTURING BUILDING

BLDG. N-5 FILLING & PROCESSING

BLDG. N-6 LABELING & CASE PACKING

BLDG. N-7 CONTAINER MANUFACTURING

BLDG. N-7A FLAT PLATE PREFABRICATING & STORAGE

BLDG. N-7B FLAT PLATE FILLING & STORAGE

BLDG. N-7C STEEL COIL WAREHOUSE

BLDG. N-7D C & I CAN LINE

BLDG. N-8

BLDG. N-9 PRESS

BLDG. N-9A PAD

BLDG. N-10 WAREHOUSE & SHIPPING

BLDG. N-10A WAREHOUSE

BLDG. N-10B WAREHOUSE

BLDG. N-10C WAREHOUSE

BLDG. N-11 WASTE WATER TREATMENT BUILDING

BLDG. N-12 WATER TREATMENT

BLDG. N-13 SUBSTATION

BLDG. N-14 ROAD SALT STORAGE

BLDG. N-15 WASTE TREATMENT

BLDG. N-16 WASTE TREATMENT

BLDG. N-17 CHILLER BUILDING

BLDG. N-18 GENERATOR BUILDING

BLDG. N-19 MAINTENANCE SHOP

BLDG. N-20 PESTICIDE STORAGE BUILDING

BLDG. N-21 ELECTRICAL CONSTRUCTION AREA

BLDG. N-22 EQUIPMENT STORAGE AREA

BLDG. N-23 CONSTRUCTION AREA

BLDG. N-24 CONSTRUCTION AREA

BLDG. N-25 CONSTRUCTION AREA

BLDG. N-26 CHILLER BUILDING

BLDG. N-27 CONSTRUCTION AREA

BLDG. N-28 CHILLER BUILDING

BLDG. N-29 CONSTRUCTION AREA

BLDG. N-30 CONSTRUCTION AREA

BLDG. N-31 CONSTRUCTION AREA

BLDG. N-32 CONSTRUCTION AREA

BLDG. N-33 CONSTRUCTION AREA

BLDG. N-34 CONSTRUCTION AREA

BLDG. N-35 CONSTRUCTION AREA

BLDG. N-36 CONSTRUCTION AREA

BLDG. N-37 CONSTRUCTION AREA

BLDG. N-38 CONSTRUCTION AREA

BLDG.

PLAN VIEW

SCALE: 1" = 100'

MAUMEE RIVER

STATE HIGHWAY (TO DEFIANCE 8MI.)

BASE LINE "B"

BASE LINE "C"

BASE LINE "A"

BASE LINE

PLANT NORTH

57° 59'

TRUE NORTH

OFFICIAL PREMISES

SPRAY IRRIGATION FIELD

42 ON 12'-6" CTRS

671.5

677

675.6

WASTE WATER PUMP HOUSE

TANK

SCALE HOUSE

FENCE

TRUCK UNLOADING

GUARD & SCALE HOUSE

TRUCK WELL

COVERED DOOR

WASTE & EMPLOYEE PARKING LOT

HYDRAULIC LIFT 400 GAL. OIL

V-7 ROOM

PASTE ROOM

PROCESSING & PACKAGING

COOLER

TRUCK WELL

TRUCK SHED

WAREHOUSE

WAREHOUSE

TRUCK PARKING

WAREHOUSE

BLDG. N-16 WASTE TREATMENT

OIL TANK

250 GAL. KEROSENE

BLDG. N-14 STEAM BOILER HOUSE

BLDG. N-13 WATER TREATMENT

BLDG. N-12 MAINTENANCE CONSTRUCTION AREA

BLDG. N-23 ENGINEERING STORAGE AREA

BLDG. N-22 ELECTRICAL CONSTRUCTION AREA

COAL STORAGE SHED

BLDG. N-20 PESTICIDE STORAGE BUILDING

BLDG. N-11 CANDY COOKERS & CARTONING

VEG. OIL TANKS & PUMP HOUSE

500 GAL. DIESEL

BLDG. N-9

BLDG. N-7 INGREDIENT RECEIVING & STORAGE BUILDING

HYDRAULIC LIFT 400 GAL. OIL

TRUCK DOCK

BLDG. N-8 MAINTENANCE SHOP

BLDG. N-3 CANDY MAKING BUILDING

BLDG. N-4 CANDY PACKAGING BUILDING

BLDG. N-6 LABEL UNLOADING & CASE PACKING

BLDG. N-7 CANDY PACKAGING MANUFACTURING

BLDG. N-7A TIN PLATE PREPARATION & STORAGE

BLDG. N-7B PALLETIZING & STORAGE

N-9 OPEN PIT

N-9 SCRAP BUILDING

BLDG. N-7C PALLETIZING & STORAGE

BLDG. N-7D STEEL CONTAINER WAREHOUSE

BLDG. N-7D D & I CAN LINE

EXIST. CONCRETE

EXIST. BLACKTOP

CONCRETE

CAMPBELL SOUP COMPANY

BLDG. N-10 WAREHOUSE & SHIPPING

BLDG. N-10A WAREHOUSE

BLDG. N-10B WAREHOUSE

BLDG. N-10C WAREHOUSE

TRUCK DOCK

CONCRETE

STONE

1,000 GAL. GASOLINE 6,000 GAL. DIESEL

UNDERGROUND STORM DRAIN

GUARD HOUSE & GATES

60 HSE

R.I.C. HSE

550 GAL DIESEL TANK AT SPRAY IRRIGATION PUMP HOUSE

REV NO.	DESCRIPTION	ASSIGNMENT/PROJECT NO.	ISSUE DATE	BY	CHECKED	ENGR APPD	ENGR MGR APPD	DFT MGR APPD
G	ADDED FUEL STORAGE TANKS		11/9/95	A.ULRICH				
F	UPDATED BLDG. N13 & N14 LAYOUT		8/16/94	T.P.G.				
E	ADDED BUILDING EXTENSION		10/20/93	G.DINDAL				

SCALE 1"=100'-0" | PERMANENTLY MARK PLANT NO. ON SURFACE INDICATED BY ▽ | USDA STAMP

MATERIAL | FINISH: ✓ EXCEPT AS NOTED | NEXT ASSY. | OBJECT ASSEMBLY NO. | REFERENCE 004 A E011112

DRAWN K.D. NELSON | DATE 10/13/88 | CHECKED | ENGR APPD | ENGR MGR APPD | DFT MGR APPD | USDA NO.

CAMPBELL SOUP COMPANY
ENGINEERING DEPT. NAPOLEON, OHIO

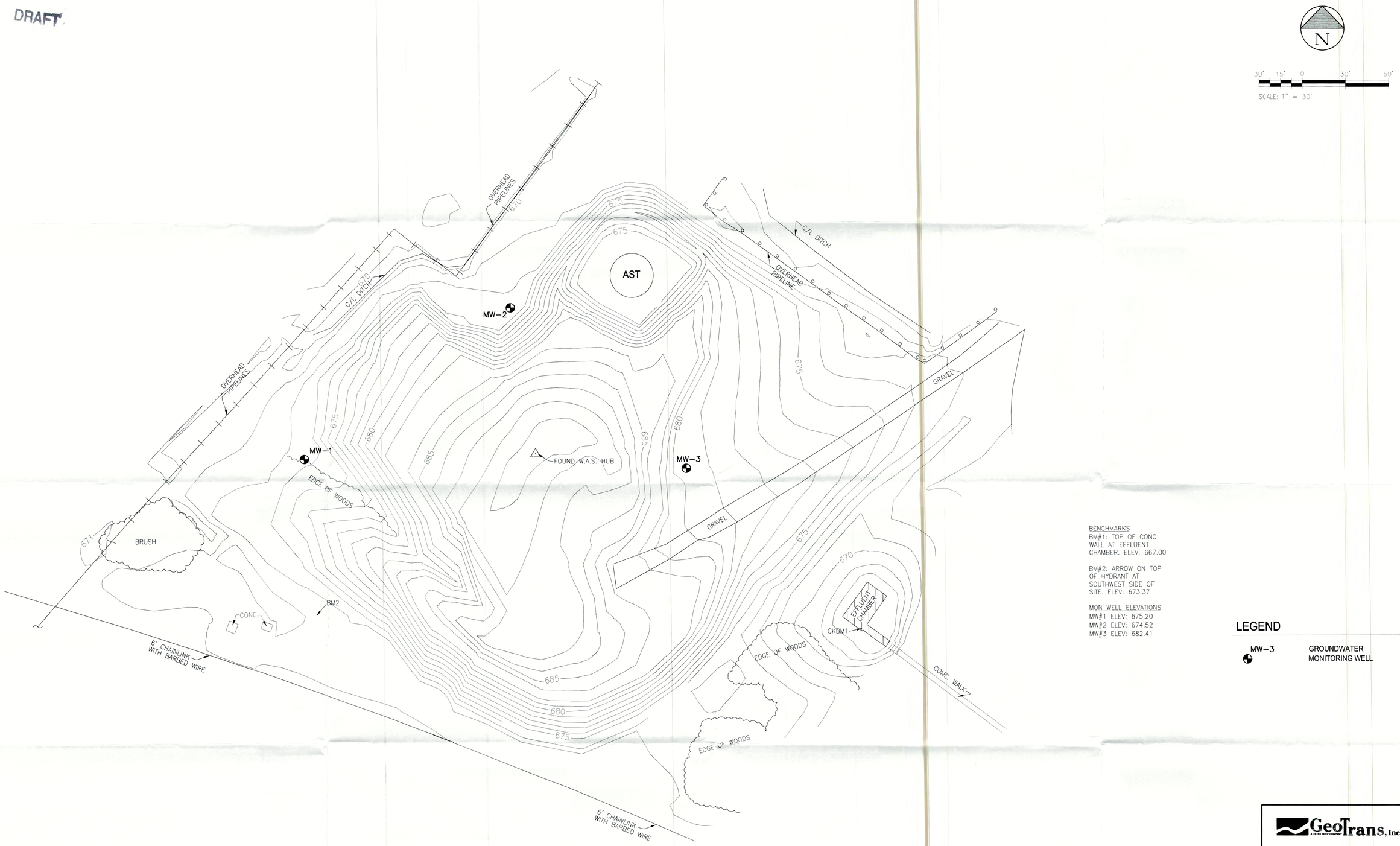
BUILDING, SURVEY, SERVICE & PROPERTY PLAN OF NAPOLEON PLANTS, OHIO

SIZE E | IDENT | DRAWING NO. NE-202127 | REV G

CMPTR FILE MISC\P\NE202127 | SHEET OF

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND IS TO BE RETURNED UPON REQUEST. ITS CONTENTS MAY NOT BE COPIED, DISCLOSED IN THEM ENTIRETY, USED, OR EXTRACTED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT HAS BEEN PROVIDED WITHOUT WRITTEN CONSENT

DRAFT



BENCHMARKS
BM#1: TOP OF CONC WALL AT EFFLUENT CHAMBER. ELEV: 667.00

BM#2: ARROW ON TOP OF HYDRANT AT SOUTHWEST SIDE OF SITE. ELEV: 673.37

MON WELL ELEVATIONS
MW#1 ELEV: 675.20
MW#2 ELEV: 674.52
MW#3 ELEV: 682.41

LEGEND

MW-3 GROUNDWATER MONITORING WELL

GeoTrans, Inc.
A TETRA TECH COMPANY

DESIGNED MSK	CHECKED
SCALE 1"=20'	CADD DATE 10/08/03 MSK 1
FILE: P:..\\CADD\REVISED CERTIFICATION REPORT FIGURES.DWG	

FORMER HOLDING PIT REVISED CERTIFICATION REPORT
CAMPBELL SOUP SUPPLY COMPANY, LLC
NAPOLEON, OHIO

FIGURE 7

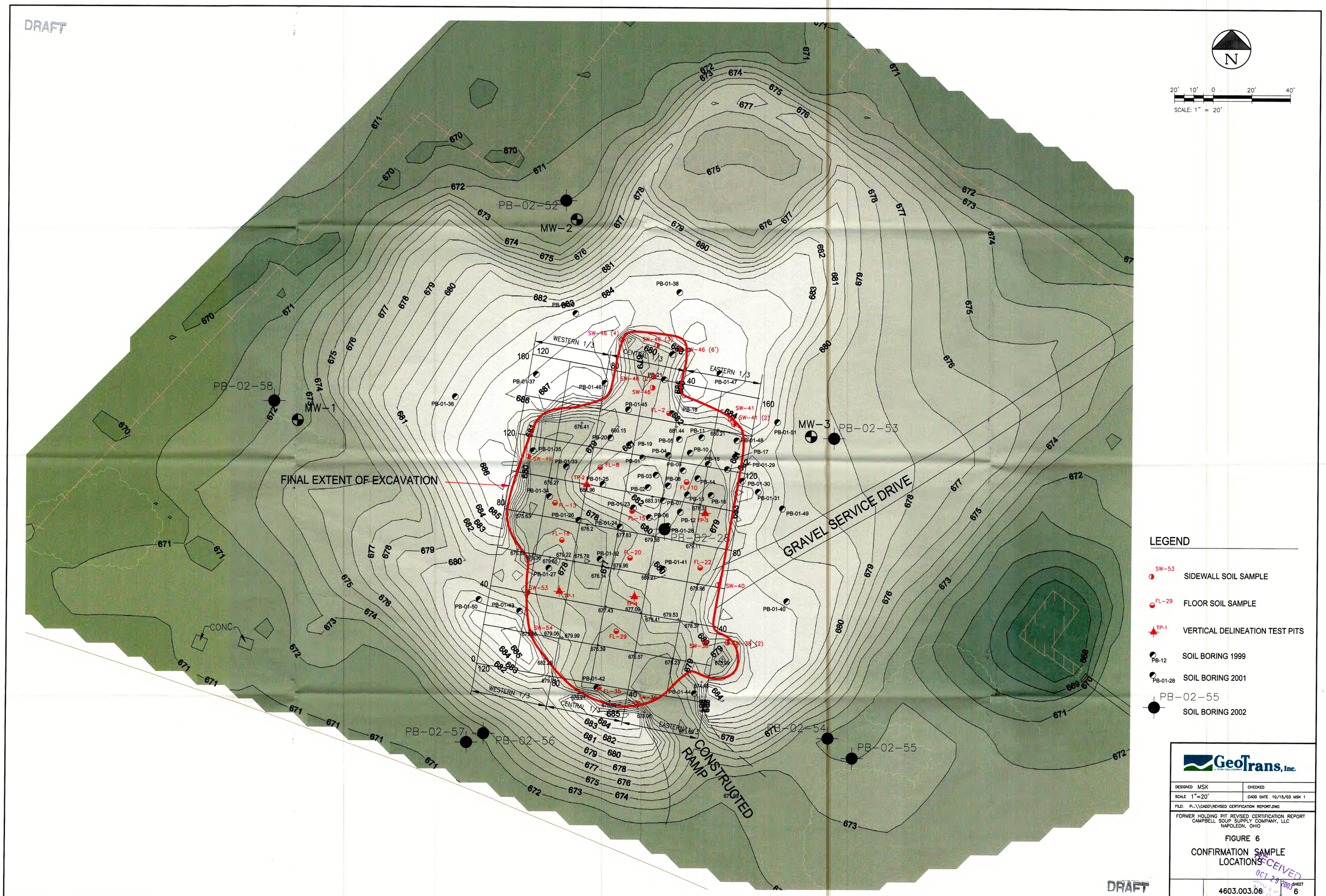
PRE-EXCAVATION SITE TOPOGRAPHY

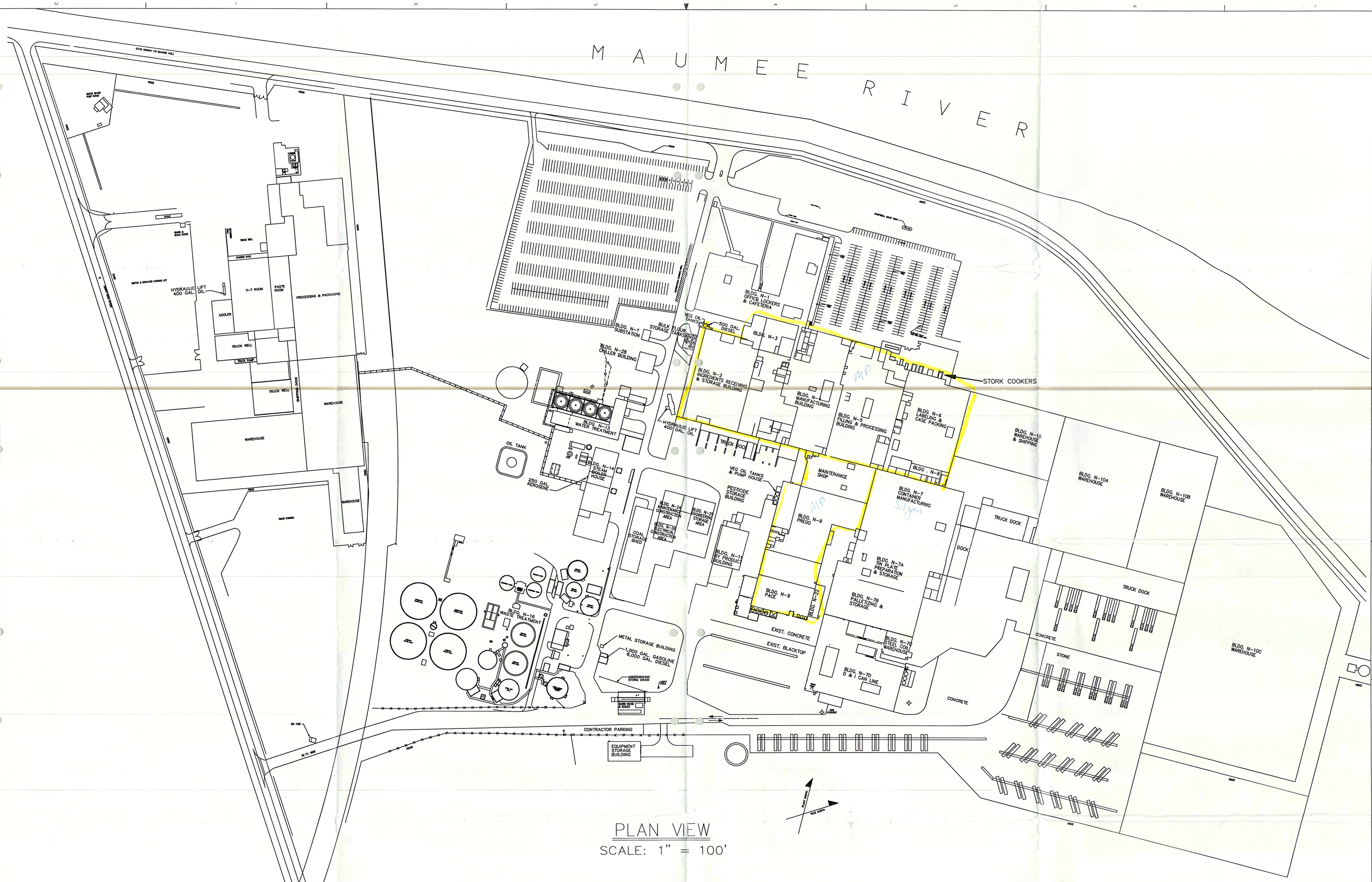
4603.003.06

SHEET 7 OF 7

DRAFT

RECEIVED OCT 29 2003 NWDO


DRAFT
N
20' 10' 0 20' 40'
SCALE: 1" = 20'
PB-02-52
MW-2
PB-02-58
MW-1
MW-3
PB-02-53
FINAL EXTENT OF EXCAVATION
GRAVEL SERVICE DRIVE
CONSTRUCTED RAMP
PB-02-28
PB-02-57
PB-02-56
PB-02-54
PB-02-55
CONC.
WESTERN 1/3
CENTRAL 1/3
EASTERN 1/3
LEGEND
SW-53 SIDEWALL SOIL SAMPLE
FL-29 FLOOR SOIL SAMPLE
TP-1 VERTICAL DELINEATION TEST PITS
PB-12 SOIL BORING 1999
PB-01-28 SOIL BORING 2001
PB-02-55 SOIL BORING 2002
GeoTrans, Inc.
DESIGNED MSK
CHECKED
SCALE 1"=20'
CADD DATE 10/15/03 MSK 1
FILE: P:...\\CADD\REVISED CERTIFICATION REPORT.DWG
FORMER HOLDING PIT REVISED CERTIFICATION REPORT
CAMPBELL SOUP SUPPLY COMPANY, LLC
NAPOLEON, OHIO
FIGURE 6
CONFIRMATION SAMPLE LOCATIONS
4603.003.06
SHEET 6 OF 7
RECEIVED OCT 29 2003
DRAFT



PLAN VIEW

SCALE: 1" = 100'

11-10-03

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REV	DESCRIPTION	ASSIGNMENT/PROJECT NO.	REV	DESCRIPTION	ASSIGNMENT/PROJECT NO.	REV	DESCRIPTION	ASSIGNMENT/PROJECT NO.	REV	DESCRIPTION	ASSIGNMENT/PROJECT NO.

ISSUE DATE	BY	CHECKED	ENGR APVD	ENGR MGR APVD	DFT MGR APVD	ISSUE DATE	BY	CHECKED	ENGR APVD	ENGR MGR APVD	DFT MGR APVD	ISSUE DATE	BY	CHECKED	ENGR APVD	ENGR MGR APVD	DFT MGR APVD	ISSUE DATE	BY	CHECKED	ENGR APVD	ENGR MGR APVD	DFT MGR APVD

SCALE except as noted 1" = 100' (1" = 100'-0")

PERMANENTLY MARK PART NO. ON SURFACE INDICATED BY

TOLERANCE UNLESS OTHERWISE SPECIFIED

BASIC DIM	1 PL DEC	2 PL DEC	3 PL DEC
UP TO 6	±.04	±.02	±.005
6 TO 24	±.06	±.03	±.010
24 UP	±.10	±.06	±.015

ANGULAR DIMENSIONS ±1/2°

MATERIAL

FINISH ✓ EXCEPT AS NOTED

NEXT ASSY.

ERGONOMIST APVD (WHEN REQUIRED)

PROJECT NO./ASSIGN'T NO.

DRAWN KDN 11/06/03

CHECKED

ENGR APVD

ENGR MGR APVD

DFT MGR APVD

USDA or GOVT APPROVAL NO.

ISO 9001

CAMPBELL SOUP SUPPLY COMPANY L.L.C.
ENGINEERING NAPOLEON, OH

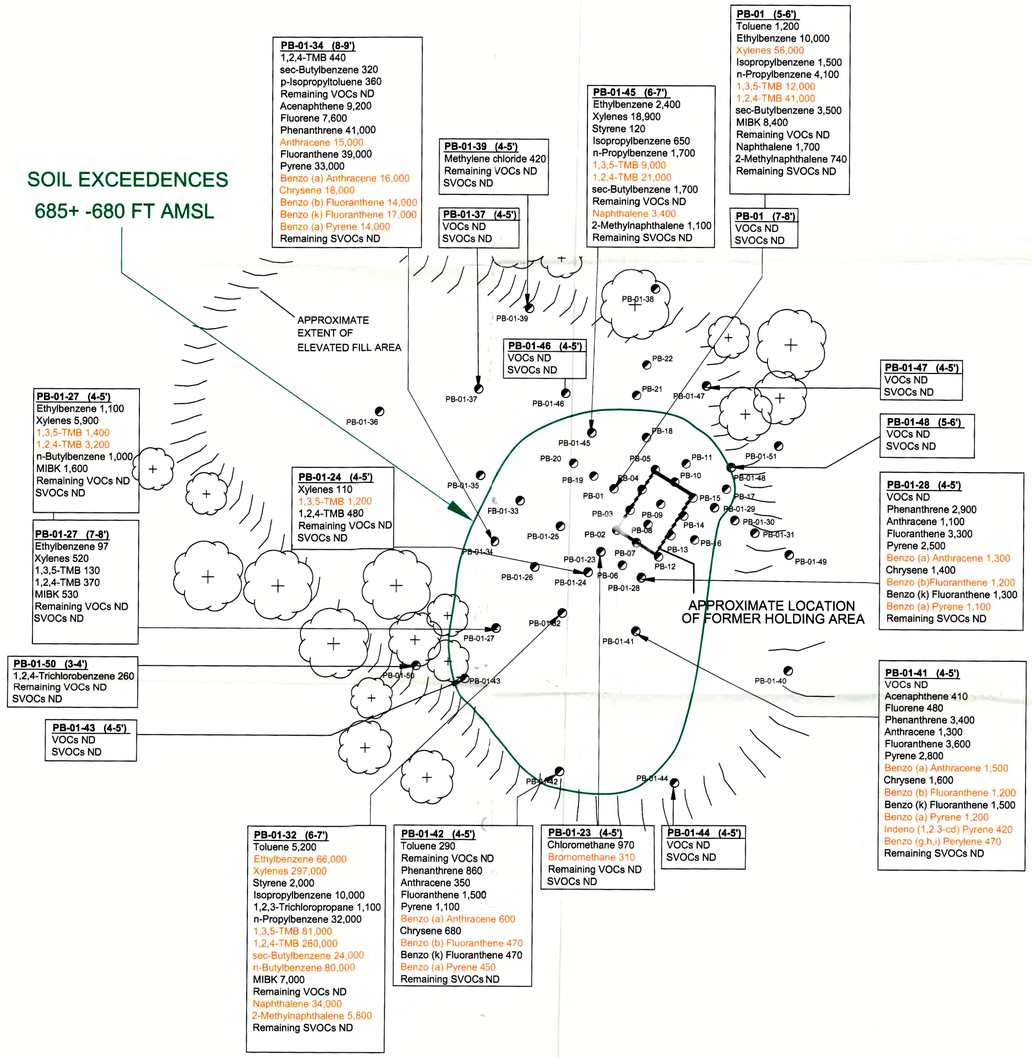
PROPERTY PLAN OF
NAPOLEON PLANTS, OHIO

DRAWING NO. 004P E006040 REV —

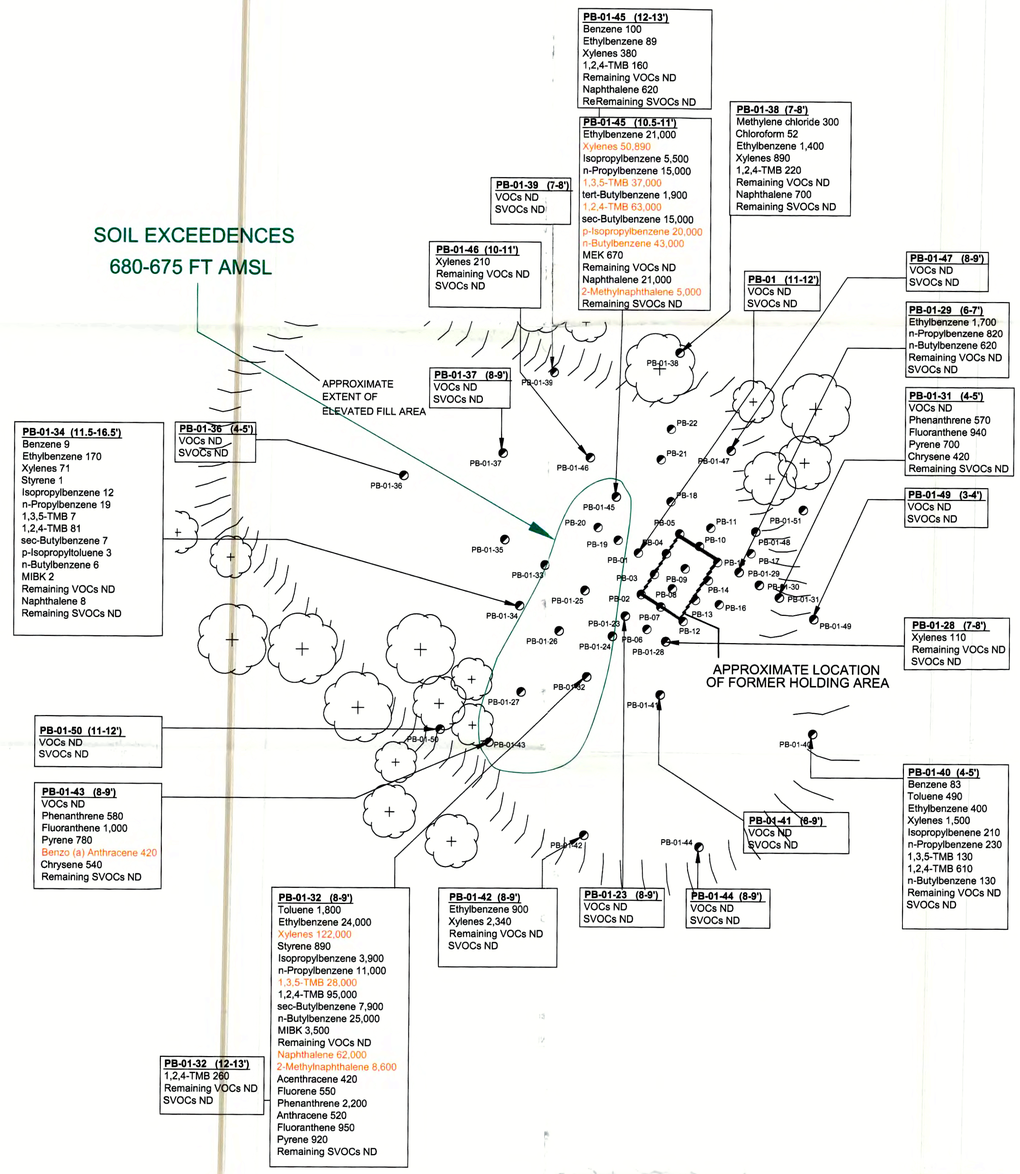
CMPTR FILE MISC\P\00604001 SHEET −1 OF −1

C:\Program Files\AutoCAD 2000\UserDoc\Plot Styles\Campbell.ctb, 11/06/2003 Fri 10:12 AM, \\Napcms001\NPRNP1103.O

DISTRIBUTION OF CONTAMINANTS FROM 680 TO 685+ FEET AMSL



DISTRIBUTION OF CONTAMINANTS FROM 675 TO 680 FEET AMSL



NOTES:

1. DATA ARE PRESENTED IN µG/KG.
2. PRESENTED DATA IS FROM MAY 2001 SAMPLING EVENT.
3. RED TEXT INDICATES CONCENTRATIONS ARE ABOVE OHIO EPA RESIDENTIAL DIRECT CONTACT CRITERIA, ADJUSTED FOR MULTIPLE CHEMICALS.

LEGEND:

VOCs = VOLATILE ORGANIC COMPOUNDS
SVOCS = SEMIVOLATILE ORGANIC COMPOUNDS
TMB = TRIMETHYLBENZENE
MIBK = METHYL 4,-2-PROPANONE
MEK = BUTANONE 2
ND = COMPOUND NOT DETECTED ABOVE THE REPORTING LIMITS. FOR A COMPLETE LIST OF ALL COMPOUNDS DETECTED ABOVE THE METHOD DETECTION LIMITS REFER TO THE LABORATORY REPORTS IN APPENDIX A.

PB-01-32 SOIL SAMPLE LOCATIONS DECEMBER 1999 & MAY 2001

N

30 15 0 30 60
SCALE: 1" = 30'

GeoTrans, Inc.

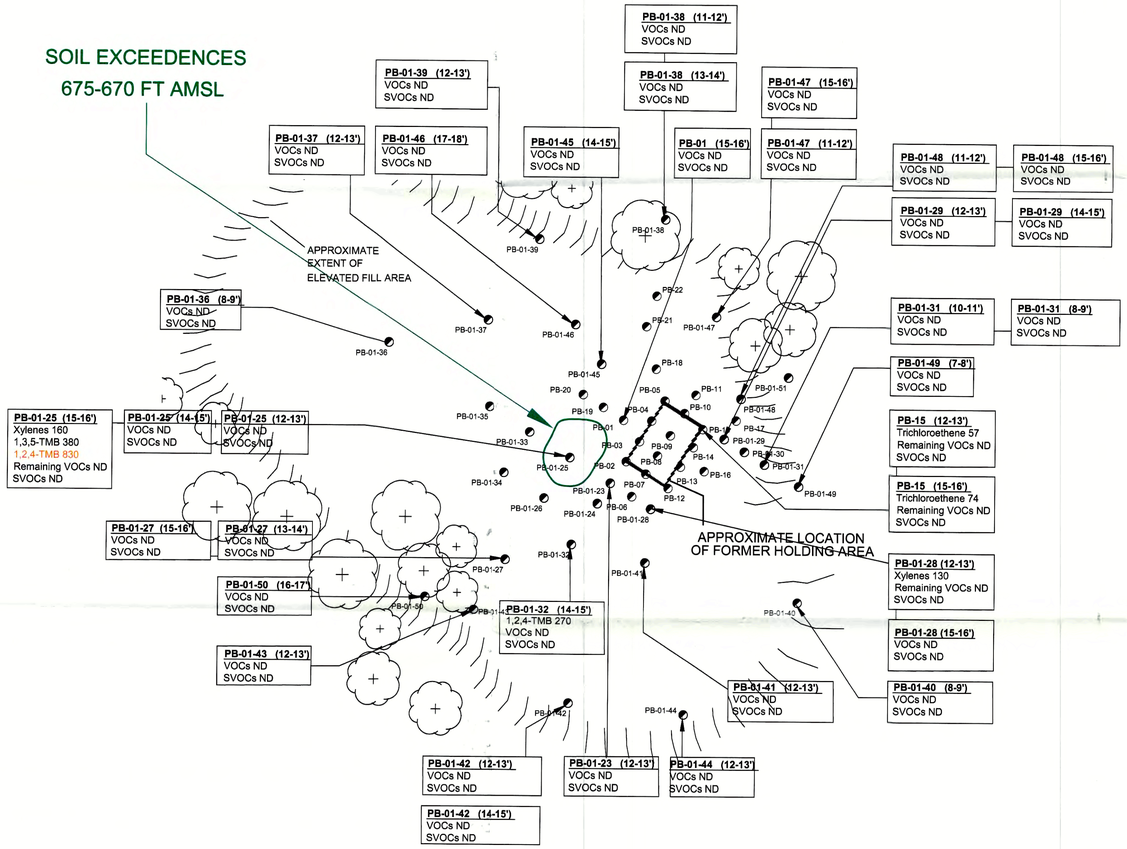
DESIGNED L. BAGBY	CHECKED C. SAVAGE
SCALE 1" = 30'	CADD DATE 10/19/01 LAB 1
FILE: P:/PROJECTS/CAMPBELLSOUP/CADD/CLOSUREPLAN.DWG	

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

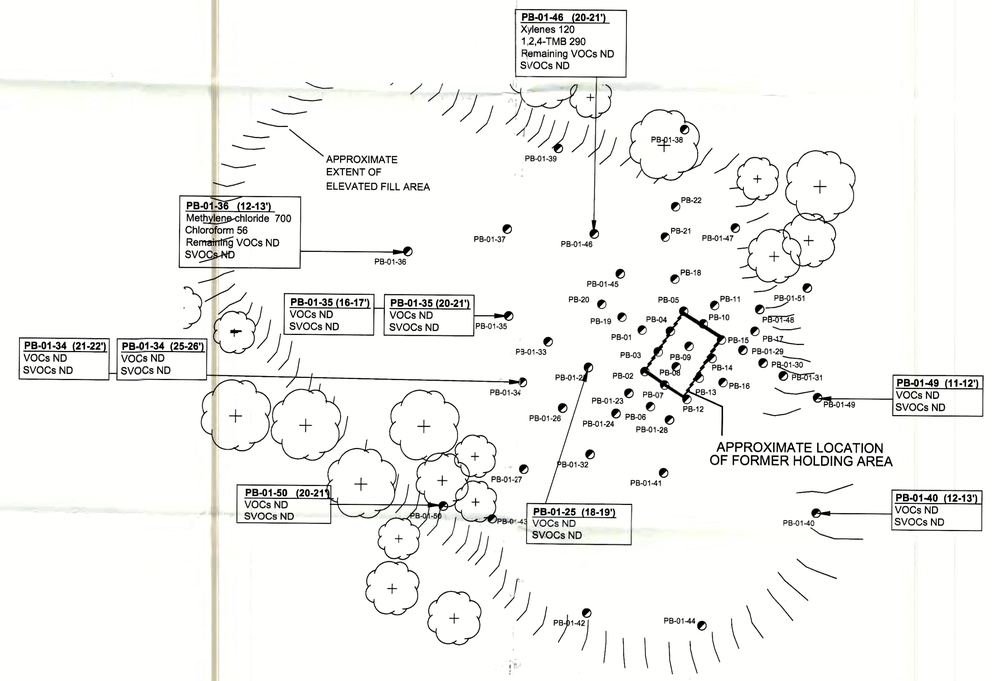
AREA OF SOIL CONTAMINATION
ELEVATION 675 TO 680
& 680 TO 685+

SHEET 3A OF

DISTRIBUTION OF CONTAMINANTS FROM 670 TO 675 FEET AMSL



DISTRIBUTION OF CONTAMINANTS FROM 665 TO 670 FEET AMSL



NOTES:

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LEGEND:

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SVOCS = SEMIVOLATILE ORGANIC COMPOUNDS
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PB-01-32 SOIL SAMPLE LOCATIONS DECEMBER 1999 & MAY 2001

N

30 15 0 30 60
SCALE: 1" = 30'

GeoTrans, Inc.

DESIGNED L. BAGBY	CHECKED C. SAVAGE
SCALE	CADD DATE 10/19/01 LAB 1
FILE: P:/PROJECTS/CAMPBELLSOUP/CADD/PHASEIICAS.DWG	

RCRA CLOSURE PLAN
CAMPBELL SOUP COMPANY
NAPOLEON, OHIO

AREA OF SOIL CONTAMINATION
ELEVATION 665 TO 670
& 670 TO 675

SHEET 3B OF

1800 Indian Wood Circle, Maumee, Ohio 43537
Tel: 419.891.2222 Fax: 419.891.1595
www.MannikSmithGroup.com

FOIA REQUEST

To: Ohio EPA-NWDO From: Ryne Sundvold

Jennifer Kellermeier Date: January 13, 2015

Fax: 419-352-8468 Phone: 419-373-3084 Pages: 4

E-mail: jennifer.kellermeier@epa.oh.gov Project #: PID 22984

Re: File Review Request

The attached items are transmitted as checked below:

☐ For review ☐ Please comment ☐ Urgent
☒ Please Reply ☐ As requested ☐ Approved as noted
☒ Please Recycle ☐ Other:

Please accept this request for information you may have related to the following sites:

Site 6: 1005 E Riverview Ave, Napoleon, Ohio (Parcel #: 28-0700640000)
Site 8: 899 E Riverview Ave, Napoleon, Ohio (Parcel #: 28-0700600000)

I am interested in any files you may have concerning the possible release of hazardous substances or petroleum products on the property, except for indications of releases to the air, which are outside of the scope of this request. In addition, we are looking for records of any "Notice of Intent to Fill" and/or dumping for the above referenced properties. If you have no information pertinent to this site please respond to this request in writing (an email is sufficient).

If you have any questions or require additional information, please feel free to contact me at the office number above and or via email at RSundvold@MannikSmithGroup.com.

Thanks.

(If there are any problems in transmission or I have sent you something in error, please advise).

Confidentiality Statement:
The information contained in this document is intended for the personal and confidential use of the above-named person(s). If the bearer/reader of this message is not said person (or, the employee responsible for delivering facsimiles) then you are notified of erroneous reception of this facsimile and any review, copying, or distribution of this facsimile is prohibited.

File Review Request Checklist

Please Note: Pursuant to Ohio Revised Code 149.43(B)(5), you are not required to fill out this checklist or otherwise provide any public records request in writing. This checklist is intended to help facilitate your public records search by listing the manner in which records are generally maintained by Ohio EPA and accessed in the ordinary course of Ohio EPA's duties.

YOUR CONTACT INFORMATION:

Requester Name: Ryne Sundvold **Affiliation:** The Mannik & Smith Group, Inc.

Requester Address: 1800 Indian Wood Circle

City: **Maumee** **State:** **Ohio** **Zip:** **43537**

Requester Phone #: 4198912222

Requester Email: RSundvold@manniksmithgroup.com

1. **RECORDS REQUESTED:**

Facility or Site Names and Address:

Name	Address	City	County
Site 6	1005 E Riverview Ave	Napoleon	Henry
Site 8	899 E Riverview Ave	Napoleon	Henry
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

Facility ID No. or other identifying information: Click here to enter text.

2. **DATE RANGE** **From:** **1940** **To:** **Current**

3. **DIVISIONS AND MAJOR PROGRAM AREAS:**

Division of Air Pollution Control (DAPC):

- ☐ Stack Tests
- ☐ Asbestos Emission Controls
- ☐ Air Permits
- ☐ Open Burning Regulation
- ☐ Ambient Air Monitoring
- ☐ Mobile Sources/Asphalt Plants
- ☐ Toxic Release Inventory
- ☐ Air Nuisance

Division of Surface Water (DSW):

- ☐ Nonpoint Source
- ☐ NPDES/Pretreatment
- ☐ Storm Water
- ☐ Surface Water Permits to Install
- ☐ Sludge Management
- ☐ Water Quality Reports/Watershed
- ☒ Wetland and Stream Permitting (401)

Division of Environmental Response and Revitalization (DERR):

Division of Drinking and Ground Waters (DDAGW):

☒ Emergency Response Incident Reports
☒ RCRA Corrective Action Files
☒ RCRA Groundwater Files
☒ RCRA Closure Files
☒ Voluntary Action Program (VAP) Files
☒ Site Assessments

☐ Monthly Operating Reports (MORs)
☐ Lead and Copper Files
☐ Plan approvals, well logs, etc.
☐ Ground Water Quality Characterization
☐ Underground Injection Control files

Division of Materials and Waste Management (DMWM):

Solid Waste Section:

☒ Construction and Demolition Debris (C&DD)
☒ Scrap Tires
☒ Composting
☒ Open Dumping
☒ Infectious Waste
☒ Municipal Solid Waste Landfills/Incinerators
☒ Municipal Solid Waste Transfer Stations
☒ Residual/Industrial Solid Waste Landfills
☒ Solid Waste Management Planning
☒ Beneficial Use

Hazardous Waste Section:

☒ Cessation of Regulated Operations
☒ RCRA C-Hazardous Waste

☐ **Division of Environmental and Financial Assistance**

4. COMMON PUBLIC DOCUMENT TYPES

☐ Final Permits/Licenses/Authorizations
☐ Inspection Reports/Checklists
☒ Director's Final Findings and Orders
☒ District Office Investigation Reports
☐ Financial Assurance Documents
☐ Water Plant Operator Certifications
☐ Settlement Correspondence
☐ Attorney General Office Referral Letters
☐ Total Maximum Daily Load Reports

☒ Notices of Violation
☒ Emergency Response Incident Reports
☐ Discharge Monitoring Reports (DMRs)
☐ Public Notice/Public Hearing Transcript
☐ Wastewater Operator Certifications
☒ Return to Compliance Letters
☐ Bilateral Compliance Agreements
☐ Environmental Covenants

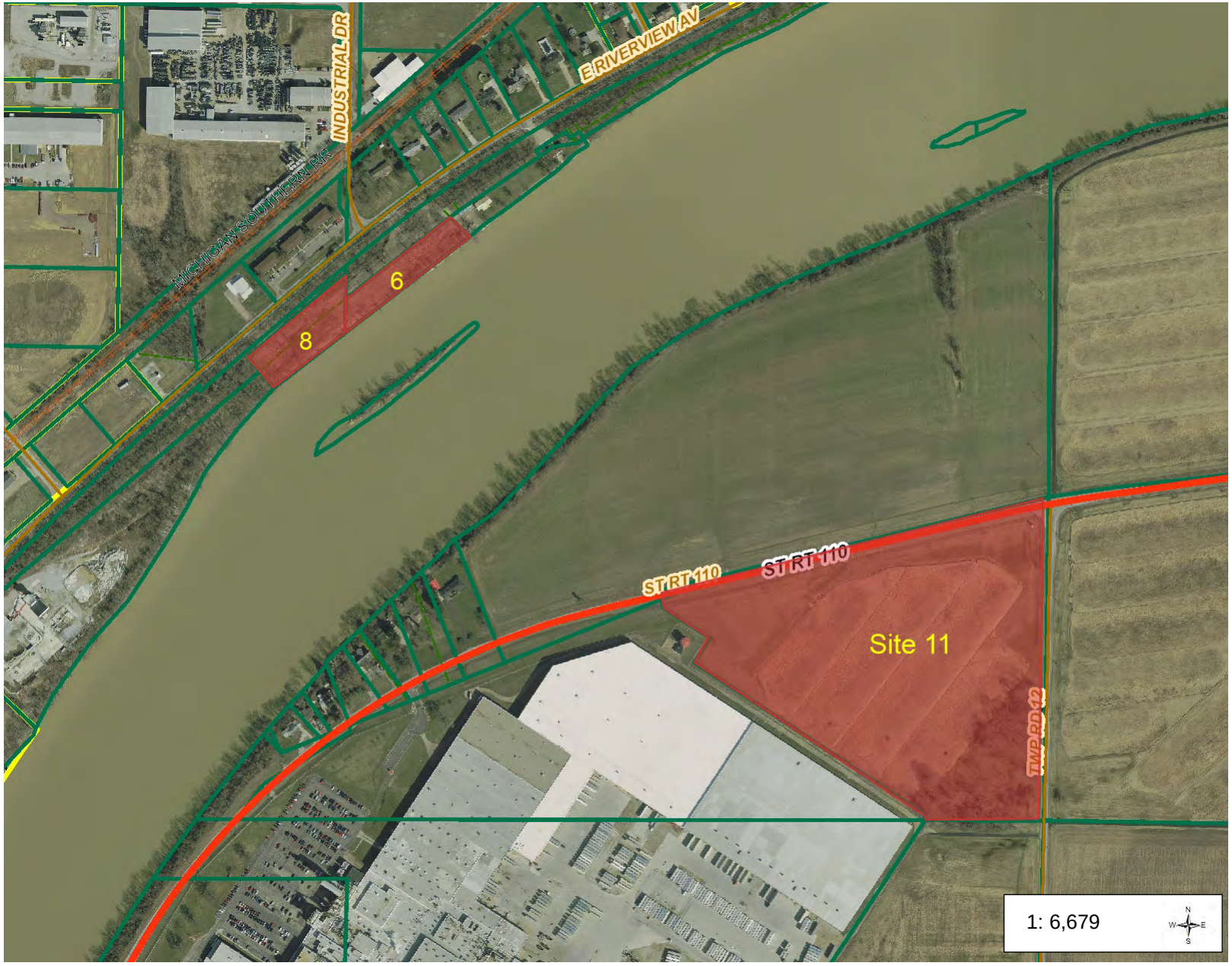
5. EMAILS (Please list the following information)

Sender(s): Click here to enter text. Date Range: Click here to enter text.

Recipient(s): Click here to enter text.

Program/Subject Matter: Phase I ESA update

Henry County, Ohio



Legend

- Highways
- Street CenterLines
- Active Railroads
- Abandoned Railroads
- Parcel Info
- Subdivision Lines
- Historic Parcel Lines
- Historic Lot Lines
- Lot Lines

Henry_RGB_30x.sid

- Red: Band_1
- Green: Band_2
- Blue: Band_3

Notes

Enter Map Description

1,113.2 0 556.59 1,113.2 Feet

NAD_1983_StatePlane_Ohio_North_FIPS_3401_Feet

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

January 21, 2015

I am writing to inform you that none of our Ohio Environmental Protection Agency divisions have any information on the two properties located in Napoleon OH at this time.

For your convenience, there are links to other information on our electronic documents (edoc) website that can assist you for your future request.

Please note that on Ohio EPA's website there is more information for each division, such as Division of Drinking and Ground Water (DDAGW), Division of Hazardous and Solid Waste (DMWM), Division of Environmental Response and Revitalization (which includes the first responders for emergency response for spills) (DERR), Division of Air Pollution Control (DAPC), and Division of Surface Water (DSW). Feel free to download the information from our website.

You may find the following information and links helpful in your future request.

- To conduct a search using Ohio EPA's electronic document system (eDocs), follow: http://edocpub.epa.ohio.gov/publicportal/edochome.aspx. Note that eDocs is currently being rolled out, and new documents are being added daily.

- To conduct a search for Division of Air Pollution Control Permits, follow http://extapex.epa.state.oh.us/epaxp/f?p=840:10:2632014501102997.

- Ohio EPA's files on emergency spills/releases are maintained by our Central Office. To request these files, please contact Rich Bouder at richard.bouder@epa.ohio.gov.

- If you suspect that a property has/had underground petroleum storage tank(s), we also recommend that you contact the State of Ohio Fire Marshal's Office, Bureau of Underground Storage Tank Regulation (BUSTR), as they may have additional information on the site. BUSTER may be reached at 614-752-7938.

If you have any further questions regarding this request please do not hesitate to contact me directly at the below information.

Thank you for your request,

Cheryl Gulley, File Review Coordinator
Ohio EPA – Northwest District Office
347 North Dunbridge Road
Bowling Green OH 43402
419-373-3086
cheryl.gulley@epa.ohio.gov

APPENDIX G
PHOTOGRAPHS

Mannik Smith GROUP
60 years
TECHNICAL SKILL.
CREATIVE SPIRIT.



Photo 1: Looking southeast at Site 11 from State Route 110.



Photo 2: Looking northeast along State Route 110 at Site 11.



Photo 3: Looking north across State Route 110 from Site 11.



Photo 4: Looking south at Site 11 from State Route 110.



Photo 5: Looking southwest at Site 11 from State Route 110 with Campbell's Soup plant in the background.



Photo 6: Looking south at construction debris on Site 8.



Photo 7: Looking southwest at construction debris on Site 8.



Photo 8: Looking south at construction debris on Site 8.



Photo 9: Looking east at fill area on Site 8.



Photo 10: Looking west at unidentified shipping container on Site 8.



Photo 11: Looking north at unidentified shipping container on Site 8.



Photo 12: Scrap dock materials stored on Site 8.



Photo 13: Construction materials stored on Site 8.



Photo 14: Piping and construction materials stored on Site 8.



Photo 15: Unidentified ASTs on Site 8.



Photo 16: Unidentified ASTs on Site 8.



Photo 17: Unidentified ASTs with hose and nozzle on Site 8.



Photo 18: Unidentified ASTs found on Site 8.



Photo 19: Scrap dock materials located on Site 6.



Photo 20: Looking northeast at construction debris and fill material located on Site 6.



Photo 21: Looking northwest at construction debris and fill material located on Site 6.



Photo 22: Looking north at fill material located on Site 6.



Photo 23: Looking east at asphalt and fill material located on Site 6.



Photo 24: Looking south at Fill material located on Site 6.



Photo 25: Looking north at Fill material located on Site 6.



Photo 26: Fill material located on Site 6.



Photo 27: Unidentified AST on Site 6.



Photo 28: Looking south at asphalt and fill material located on Site 6.



Photo 29: Looking northeast at entrance to Site 6 from State Route 424.



Photo 30: Looking southwest at entrance to Site 8 from ST RT 424.



Photo 31: Looking southwest along ST RT 424 at Site 8.

OHIO DEPARTMENT OF TRANSPORTATION
INTER-OFFICE COMMUNICATION
Office of Environmental Services

TO: Todd M. Audet, District 2 Deputy Director **DATE:** November 4, 2014
Attn: Jennifer Acuna

FROM: Timothy M. Hill, Administrator, Office of Environmental Services

SUBJECT: Environmental Site Assessment Screening

PROJECT: HEN-New Bridge **PID:** 22984

This office has reviewed the Environmental Site Assessment (ESA) Screening for the above referenced project which was produced by The Mannik & Smith Group, Inc.

Based on the information provided, a Phase I ESA is warranted for Site #6 & #8, Rettig, Todd A., Custodian, Route 424, and Site #11, Campbell Soup Supply Co., LLC, SR 110 & CR 12.

If you have any questions or concerns, please contact Juliet Denniss, Environmental Supervisor, at (614) 466-7942.

TMH:jdd:jr

c: Jenifer Acuna, D-2
File

ENVIRONMENTAL SITE ASSESSMENT SCREENING

HEN-NEW MAUMEE RIVER BRIDGE
PID 22984
PROPOSED BRIDGE OVER THE MAUMEE RIVER
ALTERNATIVE 2
NAPOLEON, OHIO

MARCH 2014

PREPARED FOR:
HENRY COUNTY TRANSPORTATION IMPROVEMENT DISTRICT
660 NORTH PERRY STREET, SUITE 101
NAPOLEON, OHIO 43545

PREPARED BY:
THE MANNIK & SMITH GROUP, INC.
1800 INDIAN WOOD CIRCLE
MAUMEE, OHIO 43537

ENVIRONMENTAL SITE ASSESSMENT SCREENING

HEN-NEW MAUMEE RIVER BRIDGE
PID 22984
PROPOSED BRIDGE OVER THE MAUMEE RIVER
ALTERNATIVE 2
NAPOLEON, OHIO

PREPARED BY: _____
WILLIAM W. SPEISER
ENVIRONMENTAL SERVICES TEAM LEADER

REVIEWED BY: _____
SUSAN S. RICHARDS, PG
HYDROGEOLOGIST

APPROVED BY: _____
MICHAEL J. MOMENEE, CP
SENIOR PROJECT MANAGER

Mannik Smith GROUP

EXECUTIVE SUMMARY

This Environmental Site Assessment (ESA) Screening Report has been prepared in accordance with the April 2009 *Environmental Site Assessment Guidelines* of the Ohio Department of Transportation's (ODOT's), Office of Environmental Services (OES) to provide sufficient evaluation for developing a list of sites recommended for Phase I ESAs.

The proposed project will construct a new bridge spanning the Maumee River at Napoleon in Harrison Township, Henry County. For many years local officials have recognized the need to better connect the northern and southern halves of the City of Napoleon, which is physically separated by the Maumee River. A single river crossing at State Route 108 currently provides the only direct transportation link between the two halves of the community.

The preferred alternative (Alt 2) would connect Industrial Drive and State Route 424 on the north side of the river with State Route 110 on the south side of the river. Additionally, an alternative route (Alt 3) was evaluated, which would span the river between State Route 424 on the north side of the river and State Route 110 on the south side of the river aligned with County Road 12. The Feasibility Study submitted to ODOT in October 2013 identified Alt 2 as the preferred alternative, and was approved by ODOT on October 31, 2013. While the Study Area covered by this report includes both the preferred alternative and Alt 3, the sites recommended for Phase I Environmental Site Assessments are only those associated with the preferred alternative.

Multiple federal and state environmental databases were reviewed to identify the current or historical use(s) of petroleum or possible hazardous materials within and adjacent to the study area. This ESA Screening included a review of:

- publicly available environmental regulatory databases;
- historical aerial photographs;
- county and/or city mapping;
- United States Geological Survey topographic mapping;
- Ohio Department of Natural Resources Oil and Gas Well maps; and,
- Other agency resources.

FirstSearch Technology Corporation (FirstSearch) compiled a summary of publicly available environmental regulatory database information for the study area and surrounding areas. The database report summarizes each site of potential environmental concern within the study area and a 0.25-mile buffer surrounding the study area. A total of 13 listings comprising five sites were identified on the database search report. Of the five sites identified, none were located within the study area.

ODOT's OES ESA Screening Checklist forms are included in Appendix A. Based upon the findings of this ESA Screening report, The Mannik & Smith Group, Inc. (MSG) recommends the following sites for Phase I ESA:

- Sites #6 & #8, Rettig, Todd A., Custodian, Route 424 (rear), located between the former Miami-Erie Canal and the Maumee River;
- Site #11, Campbell Soup Supply Co., LLC, SR 110 & CR 12;

Site #6 and #8, Rettig, Todd A., Custodian, Route 424 (rear)

This Site was undeveloped at the time of the Site investigation but exhibited a significant amount of fill material. MSG is not aware of the source of the fill material and no evidence of contamination (i.e. odors, sheens, staining) was apparent.

No USTs, ASTs, drums, pond/lagoons, surface staining, sheens, damaged vegetation or odors were observed at the time of reconnaissance. Based on the potential for contamination to be present in historic fill material, a Phase I ESA is recommended for this Site.

Site #11, Campbell's Soup Supply Company, State Route 110 and County Road 12

This Site is developed with a soup manufacturing facility in addition to farmland to the northeast. This Site was identified on the RCRA and SPILLS environmental database. Reportedly, corrective actions were completed on the site from 2006 through 2009, but the nature of these corrective actions is undetermiend.

Drums were located under trees in the farm land and an above-ground storage tank (AST) was identified on the property near the boundary of the study area. No evidence of underground storage tanks (USTs), landfills, ponds / lagoons, surface staining, sheen, damaged vegetation, odors were observed at the time of reconnaissance. Based on the potential release of a regulated material and spills at the facility and lack of information pertaining to corrective actions performed on the site, a Phase I ESA is recommended for this Site.

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Appendix C Study Area Layout Maps
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Appendix E Oil and Gas Field Map & Environmental Database Search Report
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Appendix G Photographic Logs

1.0 INTRODUCTION

The Henry County Transportation Improvement District (HCTID) has authorized a study to evaluate potential environmental concerns associated with the proposed construction of a new crossing of the Maumee River between State Route 424 on the north side of the Maumee River and State Route 110 on the South Side of the Maumee River in Napoleon, Henry County, Ohio. The study area consists of mixed residential, public, agricultural and commercial land uses.

The proposed project will construct a new bridge spanning the Maumee River at Napoleon in Harrison Township, Henry County. For many years local officials have recognized the need to better connect the northern and southern halves of the City of Napoleon, which is physically separated by the Maumee River. A single river crossing at State Route 108 currently provides the only direct transportation link between the two halves of the community.

The proposed project includes construction of a new bridge, piers, abutments and associated approaches to the bridge on both sides of the Maumee River. The preferred alternative (Alt 2) under consideration would connect Industrial Drive and State Route 424 on the north side of the river with State Route 110 on the south side of the river. An additional alternative route (Alt 3) that would span the river between State Route 424 on the north side of the river and State Route 110 on the south side of the river aligned with County Road 12 had been previously under consideration. The Feasibility Study (FS) that was submitted to ODOT in October 2013 identified Alt 2 as the preferred alternative. This FS was approved on October 31, 2013 and Alt 3 was eliminated from further consideration.

The following sections document the study methods and data sources reviewed by MSG in performance of this ESA Screening. Copies of the completed Environmental Site Assessment (ESA) Screening Checklists are presented in Appendix A. A Site Location Map identifying the study area limits is presented in Appendix B. A Study Area Layout showing nearby sites of concern is presented as Appendix C.

2.0 HISTORICAL MAPPING REVIEW

2.1 United States Geologic Survey Topographic Quadrangle Maps

The United States Geological Survey (USGS) 7.5-Minute topographic maps for the Napoleon quadrangle (dated 1960, photorevised in 1977) indicates that the study area is located in a generally flat portion of Henry County. The general elevation of the site ranges from approximately 640 to 680 feet above mean sea level (msl). The Maumee River is located within the study area. The topography of the area implies that shallow groundwater movement is toward the Maumee River. Based on the original map preparation of 1960, the study area appears to have been used for a combination of residential and agricultural purposes. Surrounding land use on this map indicates residential, agricultural and manufacturing land uses.

A copy of the appropriate portion of the USGS map is presented as the Study Area Location Map, which is located in Appendix B.

2.2 County and/or City Road Maps

The study area is located in its entirety within the City of Napoleon, Henry County, Ohio. Henry County has a total land area of approximately 416 square miles with Napoleon being the county seat. No items of suspected environmental concern within the study area were visible on the road maps reviewed.

A copy of the appropriate portion of a road map showing the study area and surrounding roadways and other pertinent features is located in Appendix C. A map showing two alternative proposed bridge rights-of-way (ROWs) is also provided in Appendix C. The two proposed ROWs are indicated by green shading in the figures.

2.3 Aerial Photographs

MSG contacted Historic Information Gatherers, Inc. (HIG) to obtain historical aerial photographs that cover the study area and adjoining sites at a scale no larger than one inch = 500 feet. MSG reviewed and summarized (below) copies of aerial photographs provided by HIG. Copies of the pertinent aerial photographs are provided in Appendix D.

Table 2.1
Summary of Aerial Photograph Review

Year	Study Area Features	Adjoining Site Features	Concern?
1950	The Study Area is depicted as developed with farmland.	The surrounding area is dominated by farmland.	No
1956	The single-family dwelling currently identified as Site #3 is depicted. No other significant changes from the 1950 photograph are observed.	The initial development of the Campbell's Soup Company is depicted southwest of the Study Area. The Henry County Hospital has been constructed in the northeastern corner of the Study Area. No other significant changes from the 1950 photograph are observed.	No
1963	No significant changes from the 1956 photograph are observed.	An expansion of the Campbell's Soup Plant to the northeast is depicted. No other significant changes from the 1956 photograph are observed.	No

Year	Study Area Features	Adjoining Site Features	Concern?
1971	Additional residences were constructed on the north side of the Maumee River. No other significant changes from the 1963 photograph are observed.	Additional expansion of the Campbell's Soup Plant to the northeast is depicted. The Henry County Hospital in the northeastern corner of the study area has expanded. No other significant changes from the 1963 photograph are observed.	No
1980	The multi-family dwelling identified as Site #2 is depicted in this aerial photograph. Additional residences were constructed on the north side of the Maumee River. A commercial building was constructed on the western side of the Study Area.	Additional industrial facilities were constructed north of the railroad tracks. The Henry County Hospital in the northeastern corner of the study area has again expanded. Additional Industrial Facilities have been constructed north of the railroad tracks No other significant changes from the 1971 photograph are observed.	No
1989	No significant changes from the 1980 photograph are observed.	The construction of the final northeastward expansion of the Campbell's Soup Company is depicted. Additional commercial/industrial buildings are seen to the north of the Study Area. No other significant changes from the 1977 photograph are observed.	No
1994	No significant changes from the 1989 photograph are observed.	No significant changes from the 1989 photograph are observed, although the area north of the Study Area experienced additional industrial growth	No
2000	No significant changes from the 1994 photograph are observed.	No significant changes from the 1994 photograph are observed.	No
2004	Sites #6 and #8 are depicted with areas of disturbed earth. No other significant changes from the 2000 photograph are observed.	No significant changes from the 2000 photograph are observed.	Yes – suspected filling at Sites 6 and 8
2009	No significant changes from the 2004 photograph are observed.	No significant changes from the 2004 photograph are observed.	No

2.4 Preliminary Project Mapping and/or Plans

Preliminary project mapping is limited to the Proposed Conceptual Alternative Corridors Figure (IV-1), included in Appendix E.

2.5 Oil and Gas Well Mapping

MSG reviewed the Ohio Department of Natural Resource (ODNR) – Division of Geological Survey Oil and Gas Location Maps that cover the study area. According to the on-line maps reviewed, no oil or gas wells, fields or borings are located within the Study Area. The map indicates the presence of two dry holes within ¼ mile of the study area. These dry holes are not a concern to the Study Area. The nearest oil or gas field is the McClure gas field of the Trenton limestone formation located over nine miles west-southwest of the study area. A copy of the oil and gas map is included in Appendix F.

3.0 REGULATORY DATABASE REVIEW

MSG subcontracted with FirstSearch Technology Corporation (FirstSearch) to review federal and state databases specified in ODOT's April 2009 ESA Screening requirements. A copy of the database report is presented in Appendix F. The following ODOT-specified federal and state databases were reviewed:

Federal

- National Priorities List (NPL);
- Proposed NPL;
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS Active);
- CERCLIS-No Further Remedial Action Planned (NFRAP);
- Resource Conservation and Recovery Information System - Treatment, Storage, and Disposal Facilities, (RCRIS - TSD);
- RCRIS - Corrective Action Sites (RCRIS - COR);
- RCRIS - Large and Small Quantity Generators (RCRIS GN);
- RCRIS - Sites No Longer Regulated (RCRIS NLR); and
- Emergency Response Notification System (ERNS);

State

- Ohio Master Sites List (MSL);
- Licensed Solid Waste Facilities (SWF/LF);
- Ohio Leaking Underground Storage Tanks (LUST);
- Ohio Underground Storage Tanks (UST);
- Voluntary Action Program (VAP) Sites

3.1 Database Results Summary

A total of 13 database entries, associated with four sites, were identified to be within the ODOT search distance relative to the study area. Additionally, 11 database entries were reviewed by MSG that were non-geocoded, meaning that FirstSearch was unable to determine the specific locations for these sites. Based on the available address information, MSG has determined that each of the non-geocoded listings are beyond the ODOT-recommended 0.25-mile search radius and are not expected to impact the study area corridor. Additional information about the identified sites is provided in the following sections:

3.2 Study Area-Specific Results

Campbell's Soup Supply Company, located at 12 State Route 110, was identified in the RCRIS database as a facility subject to corrective action under the Resource Conservation and Recovery Act (RCRA-CORRACTS). Three of these listings were reported in the database search.

The first RCRA-CORRACTS listing identified the facility operations as "all other miscellaneous food manufacturing" and was specific to the beverage plant. This listing identifies the facility as a small quantity generator of ignitable waste, corrosive waste, mercury, lindane, methoxychlor, chloroform, dichloromethane (or methylene chloride), and spent non-halogenated solvents. The facility received two "generators – pre-transport" violations in 1994 and one "generators – general" violation in 2003. Each violation resulted in written informal enforcement actions from the Ohio EPA and was resolved in the same year of issue. Corrective actions are reported to have been implemented in 2006 and 2009. The corrective actions were not described in detail in the environmental database report. The lack of information in the environmental report involving corrective actions is considered a significant data gap.

The second RCRA-CORRACTS listing identified the facility operations as "specialty canning and seafood canning" and applied to the soup plant. This listing identifies the facility as a small quantity generator of the same materials discussed in the preceding paragraph. The facility received 15 RCRA violations between 1993 and 2010, nearly all of them related to records/recordkeeping and financial requirements. All violations were resolved by October of 2010. Written informal enforcement actions from the Ohio EPA were drafted in 1993, 2000, and 2003, and 2008(A) compliance was issued and completed in 2000. Corrective action events were initiated in 2006, 2009, and 2010. Corrective action number CA750YE indicates that contaminated groundwater is present at the facility, but migration is under control. The corrective actions were not described in detail in the environmental report. The lack of information in the environmental report involving corrective actions is considered a significant data gap.

The third RCRA-CORRACTS listing identified the facility operations as "testing laboratories." This listing identifies the facility as a conditionally exempt small quantity generator of ignitable waste, methyl ethyl ketone, spent halogenated solvents and spent non-halogenated solvents. The facility received one "generators – pre-transport" and one "Transport, Storage and Disposal (TSD) – closure/post-closure" violation in 1994, both of which were identified as resolved in 1994. Four written informal enforcement actions were submitted by the Ohio EPA in 1994. Corrective actions - were initiated in 2006 and 2009. The corrective actions were not described in detail in the environmental report. The lack of information in the environmental report involving corrective actions is considered a significant data gap.

In 2007, a spill of waste water was reported at this facility address. No additional information regarding the nature or response to the spill was provided in the database report. Based upon the presumed direction of groundwater flow at the Campbell's Soup plant (Northeast, toward the project Study Area), these listings may impact the study area.

Carson Industries, 1675 Industrial Drive, is located near the north edge of the study area boundary and is identified on the RCRIS database as a large-quantity generator of ignitable waste. No RCRA violations were reported in the database. Based on the absence of a recorded release and the distance from the proposed new river crossing project, this site is not expected to be a concern to the study area.

The City of Napoleon Municipal Services Building, 1775 Industrial Drive, is located approximately 590 feet north of the study area. This facility was identified on the UST database with an unspecified number of currently-in-use USTs, and on the LUST databases with three releases, in 2000, 2001, and 2012. Each of these incidents was granted no further action (NFA) status. Based on the presence of the NFA letters and the relative distance, these incidents are not expected to impact the study area.

The City of Napoleon County Road 12 is located on the north east edge of the study area on the northwest side of the East Riverview Avenue and Enterprise Avenue intersection. This Site was identified on the ERNS environmental database with a release of 1,000 gallons of PCBs a regulated material. This site is located within the proposed alternative route (Alt 3) that has been removed from further consideration. Therefore, this site is not recommended for additional investigation.

Based on available information, the remaining listed sites are not expected to impact the study area.

The non-geocoded sites are all outside of the ODOT-recommended search distance of 0.25-mile and are not expected to impact the study area.

4.0 SITE INSPECTION

A total of 43 sites were identified within the study area and were visually evaluated in accordance with ODOT's guidelines. Each of the sites was assigned a unique site number, which corresponds with the numbers on the Site Assessment Checklists in Appendix A. It should be noted; the site numbering system was created solely for this report and does not follow other site identification systems that may be in use. Site inspections were completed by Anthony Rehrmann and by Ari McKeever between September 2012 and April 2013. Site reconnaissance was conducted from public rights-of-way. Each site was inspected for evidence of staining, evidence of UST systems, soil disturbances, drums, surface lagoons, distressed vegetation, or other features that could be indicative of the handling, storage or disposal of petroleum and/or hazardous materials. A photographic log is provided in Appendix G.

Land use in the study area consists of mixed, residential, industrial, and public lands. Observations and characteristics of each site are described below:

Single Family Homes: There are numerous single family residential properties, most of which are located north of State Route 424 (Riverview Road) and south of a set of railroad tracks. None of these single family residential properties were identified within any environmental databases reviewed. No evidence of USTs, ASTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance. Based on the available history of the Sites, no further investigation is warranted. These single family residences include the following:

- Site #3, Drummond, Marvin, 930 East Riverview Avenue; constructed in 1956 (according to the Henry County Auditor's website).
- Site #5, Hauenstein, Todd R., 1005 East Riverview Avenue
- Site #12, Wanemacher, Roger, 12-406 State Route 110
- Site #23, Bockelman, Fredrick C. 954 E Riverview Avenue
- Site #24, Hartman, Patricia L. 968 E Riverview Avenue
- Site #25, Belcher, Wayne C. 980 E Riverview Avenue
- Site #26, Abbott III, Charles D. 994 E Riverview Avenue
- Site #27, Peper, Maureen M. 1012 E Riverview Avenue
- Site #28, Schwaiger, Paul F. 1030 E Riverview Avenue
- Site #29, Scheider Sherrie L. 1048 E Riverview Avenue
- Site #30, Schnitkey Ann C. 1801 Lamar Lane
- Site #31, Wilson, Craig 1811 Lamar Lane
- Site #32, Smith, Ronald E. 1821 Lamar Lane
- Site #33, Vela, Gregory D. 1831 Lamar Lane
- Site #34, Detray, Scott W. 1841 Lamar Lane
- Site #35, Cruz, Robert F. 1822 Lamar Lane
- Site #36, Fruchey Paul N. 1802 Lamar Lane
- Site #37, Mires, Shirlee 1120 E Riverview Avenue

Multi-Family Homes: There are several apartment complexes along State Route 424. These Sites were not identified within any environmental databases reviewed. No evidence of USTs, ASTs, drums: landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance. Based on the available history of these Sites, no further investigation is warranted. Properties with multi-family homes include the following:

- Site #2, Heartland Estates, LLC, 884 East Riverview Avenue
- Site #38, Wurster Properties Inc. 1212 E Riverview Avenue

- Site #39, Wurster Properties Inc. 1140 E Riverview Avenue

Islands: There are several properties located on islands within the Maumee River. There is no access to these properties except by boat. When viewed from the mainland, these properties appeared vacant, and aerial photography shows that when water is high, Bug Island and East Island are submerged; therefore it is unlikely that any permanent structures are located on these islands. No evidence of USTs, ASTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed. Based on the available history of these sites, no further investigation is warranted. These island properties include:

- Site #9, Riley, Bruce A., et al, trustees, St. Rt. 424 Rear: This site is an island within the Maumee River and was inaccessible at the time of the site investigation
- Site #13, Bug Island: Based on aerial photographs; when water is high, this island is submerged
- Site #14, Lankenau, Jeffrey R., East Island. Based on aerial photographs; when water is high, this island is submerged

Recreational Land: Remnants of the Miami-Erie Canal are used as a hiking and mountain biking path known as The Buckeye Trail. No evidence of USTs, ASTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed. Based on the available history of the Site, no further investigation is warranted. Properties identified as used for trails include:

- Site #4, City of Napoleon, SR 424
- Site #7, Unidentified Owner – Ownership information was not available on the Henry County Auditor's website.

Vacant, Agricultural, or Undeveloped Land: Several Sites are vacant or used for agricultural purposes. These Sites were not identified on any environmental databases. No evidence of USTs, ASTs, drums: landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance. Based on the available history of these Sites, no further investigation is warranted. These undeveloped lands include:

- Site #10, Wyatt, Joann M., St. Rt. 110. This Site was in agricultural production at the time of the Site reconnaissance.
- Site #17, CCS Reality Co. State Route 424
- Site #18, Adair Ltd. State Route 424 Rear
- Site #40, Lankenau Properties I., LTD. E Riverview Avenue

Vacant Land with Evidence of Fill: Two sites, located along the Maumee River, show evidence of filling operations. The source of the fill in undetermined. This land was vacant during site reconnaissance. No evidence of USTs, ASTs, drums: ponds/lagoons, surface staining, sheens, damaged vegetation or odors were observed at the time of reconnaissance. Because the source and characteristics of the fill materials are unknown, Phase I ESA is recommended for both of the following adjacent sites:

- Site #6, Rettig, Todd A., Custodian, Route 424 (rear)
- Site #8, Rettig, Todd A., State Route 424

Industrial Sites: The area, located north of the Maumee Western Railroad and the Campbell's Soup Plant located south of the Maumee River are developed for Industrial Purposes. Each use is described below:

Site #1, Maumee Western Railroad
This site is developed with a single-track railroad but was not identified on any environmental databases reviewed.

No evidence of USTs, ASTs, drums, landfills, pond/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance. However, several sidings serving industrial properties north of the tracks were observed. These sidings are outside of the proposed approaches for the spans (Alt 2 and Alt 3). Phase I ESA is not recommended for this site.

Site #11, Campbell's Soup Supply Co., State Route 110 and County Road 12
This site is a food manufacturing facility and includes adjacent fields in agricultural production to the northeast which lie within the Study Area. Campbell's Soup was identified within the RCRA and SPILLS environmental databases reviewed, but the plant lies outside of the study area. No evidence of ASTs, USTs, landfills, ponds/lagoons, surface staining, sheen, damaged vegetation, odors were observed at the time of reconnaissance within the Study Area, but an AST is located immediately south of State Route 110 (Alt 2).

Drums were observed under trees in the agricultural fields. Given the unknown contents of the drums, the AST, and the RCRA and SPILLS database listings for this site, a Phase I ESA is recommended.

Site #15, RDD, LTD., 1675 Industrial Drive
This site is developed as an industrial custom structural foam molding facility. This site was identified on the RCRA environmental database. The Site was identified on the RCRIS database as a large-quantity generator of ignitable waste. ASTs were observed at the south end of the site adjacent to a railroad siding. No evidence of USTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation, odors was observed at the time of reconnaissance. Based on the available history of the site and no violations on record, no further investigation is warranted.

Site #16, L & L Properties LTD., 1700 Industrial Drive
This site is developed as an industrial tool, die, gauges, and general machining facility and was not identified in any environmental databases. No evidence of USTs, ASTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance. Based on the available history of the site, no further investigation is warranted.

Site #19, CCS Realty Company. 1800 Industrial Drive
This site is developed as vacant warehouse facility and is vacant and was not identified on any environmental databases. No evidence of USTs, ASTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance. Based on the available history of the site, no further investigation is warranted.

Site #20, Advanced Drainage System. 1075 Independence Drive
This site is developed as a plastic drainage tubing manufacturing facility and was not identified on any environmental databases. No evidence of USTs, ASTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance. Based on the available history of the Site, no further investigation is warranted.

Site #21, CCS Realty Co. 1165 Independence Drive
This site is developed as a dry and cold storage facility and was not identified on any environmental databases.
No evidence of USTs, ASTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance. Based on the available history of the Site, no further investigation is warranted.

Site #22, CCS Realty Co. 1175 Independence Drive
This site is developed with a warehouse facility and was not identified on any environmental databases. No evidence of USTs, ASTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was

observed at the time of reconnaissance. Based on the available history of the Site, no further investigation is warranted.

Site #41, City of Napoleon County Road 12
This site is developed as a public utility power substation and was identified on the ERNS environmental database. According to an aerial photograph review completed by MSG, the site has been a public utility power substation since at least 1963. ASTs were located on the west edge of the site. No evidence of USTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation, odors was observed at the time of reconnaissance. This site is located within the proposed alternative route that has been removed from further consideration; therefore, it is not recommended for additional investigation.

Site #42, Toledo Edison Company County Road 12
This site is developed as a public utility substation but was not identified on any environmental databases. According to an aerial photograph review completed by MSG, the site has been a public utility power substation since at least 1956. No evidence of USTs, ASTs, drums, landfills, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance. Based on the available history of the Site, no further investigation is warranted.

Site #43, Imperial Clevite, Inc. 11-800 State Route 424
This site is developed as an industrial automotive parts supplier facility and was identified on the LUST environmental database. No evidence of USTs, ASTs, drums, ponds/lagoons, surface staining, sheens, damaged vegetation or odors was observed at the time of reconnaissance. Based on the potential for contamination from the LUST to be present in addition to the Site's use for industrial manufacturing, a Phase I ESA is recommended for this Site.

Photographs of the study area are included in Appendix G.

5.0 CONCLUSIONS AND RECOMMENDATIONS

This ESA Screening report is presented to document the evaluation of potential hazardous material concerns associated with a proposed Maumee River crossing from Industrial Drive to State Route 110 in Napoleon, Henry County, Ohio. The Study Area consists of mixed residential, public, agricultural and commercial land uses. MSG recommends the following sites associated with the preferred alternative within the study area for Phase I ESA:

- Site #6, Rettig, Todd A., Custodian, Route 424 (rear), located between the former Miami-Erie Canal and the Maumee River;
- Site #8, Rettig, Todd A., State Route 424, located between the former Miami-Erie Canal and the Maumee River.
- Site # 11, Campbell's Soup Supply Company., State Route 110 and County Road 12

Sites #6 and #8, Rettig, Todd A., Custodian, Route 424 (rear)
These sites were undeveloped at the time of MSG's site investigation but a significant amount of fill materials of undetermined origins and characteristics were observed.

Site #11, Campbell's Soup Supply Company, State Route 110 and County Road 12
This site is developed as a food manufacturing facility in addition to farmland to the northeast of the plant. The site was identified on the RCRA and SPILLS environmental database. Several drums with unknown contents were located under trees in agricultural land associated with this site as was an AST with unknown contents. Reportedly, the site has undertaken corrective actions associated with a closure/post-closure violation from 2006 through 2009, but the nature and characteristics of the corrective actions are undetermined..

6.0 REFERENCES

FirstSearch Technology Corporation, Environmental FirstSearch Report: Industrial Drive, Napoleon Oh, 43545, August 23, 2012; (773) 645-8001. Provided environmental database report.

Historical Information Gatherers. (952) 253-2004. Provided historical aerial photography.

Henry County Auditor, Henry County Real Estate Search. http://www.co.henry.oh.us/cgi-bin/db2www.pgm/req.mbr/main. Provided parcel information and historical title information.

Henry County Engineering Office, http://henry.tgisites.com/Henry_Viewer/Viewer.html. Provided parcel information.

Ohio Department of Transportation, Office of Environmental Services; Environmental Site Assessment Guidelines (September 1, 1999), updated April 2009.

Ohio Geologic Survey website: http://www.dnr.state.oh.us/OhioGeologicalSurvey. Obtained Oil and Gas Well location map for the study area.

APPENDIX A
ESA SCREENING CHECKLIST FORMS

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist

Date: September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 1 / Maumee Western Railroad / N/A / 06-07-503-001

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Single-track railroad

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.5 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** ____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist

Date: September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 2 / Heartland Estates, LLC / 884 East Riverview Avenue / 06-07-326-003

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Multi-family dwelling (East Pointe Apartments)

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.5 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** ____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist

Date: September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 3 / Drummond, Marvin / 930 East Riverview Avenue / 06-07-252-001

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Single-family dwelling built 1956

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.5 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** ____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist

Date: September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 4 / City of Napoleon / SR 424 / 06-07-277-001

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Public land, hiking trail

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Former Miami-Erie Canal

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.5 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** ____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist

Date: September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 5 / Hauenstein, Todd R. / 1005 East Riverview Avenue / 06-07-401-002

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Single-family dwelling

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.5 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** ____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist

Date: September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 6 / Rettig, Todd A., Custodian / Route 424 (Rear) / 06-07-401-003

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Undeveloped fill

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.5 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes X** **No** **Reason: Fill material.**

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist

Date: September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 7 / NA / NA / 07-07-327-001

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Hiking trail

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Former Miami-Erie Canal

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.5 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** ____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist

Date: September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 8 / Rettig, Todd A. / ST RT 424 / 06-07-327-002

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Undeveloped fill

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.5 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes X** **No ____** **Reason: Fill material.**

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist

Date: September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 9 / Riley, Bruce A., et al, trustees / St RT 424 Rear / 06-07-402-001

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Undeveloped island.

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.5 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** ____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist

Date: September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 10 / Wyatt, Joann M. / St Rt 110 / 06-07-426-001

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Farmland.

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** ____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Anthony Rehrmann, Environmental Scientist **Date:** September 4, 2012

County/Route/Section: HEN-New Maumee River Bridge (PID 22984) **District:** 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 11 / Campbell Soup Supply Co., LLC / SR 110 & CR 12 / 06-07-476-002, 22070004, 22080002, 22080004

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
___	___	___	___	X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Farmland.

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Listed on RCRA-CORRACTS
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Listed on SPILLS.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	YES	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes X** **No ____** **Reason: RCRA CORRACTS and potential groundwater contamination.**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 12 / Wanemacher, Roger / 12-406 SR 110 / 22070006

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
___	___	___	___	X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residence

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed.
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed.
OEPA Master Site List (MSL)	June 12, 2012	Not Listed.
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed.
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed.
Other State/Local Lists	Various	Not Listed.

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 13 / NA / Bug Island / 06-07-278-001, 06-07-278-002

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Undeveloped Island in the Maumee River

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 14 / Lankenau, Jeffrey R. / East Island / 22070024

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Undeveloped Island in the Maumee River.

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 15 / RDD, LTD / 1675 Industrial Drive / 28070084

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Industrial, Carson Industries LLC, Custom structural foam molding

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Listed on RCRAGN
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	YES	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** X **No** ____ **Reason: Hazardous Waste Generator**

Associated with Alt 3, which has been removed from consideration.

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 16 / L & L Properties, LTD / 1700 Industrial Drive / 2807008802

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
___	___	___	___	X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Industrial / Innovative Tool and Die / Dies, gauges, general machining.

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 17 / CCS Reality Co. / SR 424 / 2807008807

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW ___ Strip ROW ___ Minor Take ___ Whole Parcel Take ___ Not Available X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Vacant Land

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 18 / Adair Ltd. / SR 424 Rear / 2807008809

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW ___ Strip ROW ___ Minor Take ___ Whole Parcel Take ___ Not Available X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Vacant Land

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 19 / CCS Realty Co. / 1800 Industrial Drive / 2807008808

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Industrial / Vacant

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 20 / Advanced Drainage System / 1075 Independence Drive / 2807008806, 2807008805

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Industrial, advance Drainage System, Manufacture plastic drainage tubing

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 21 / CCS Realty Co. /1165 Independence Drive / 2807008803

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Industrial, Cloverleaf Cold Storage, Dry and Cold Storage.

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 22 / CCS Realty Co. / 1175 Independence Dr. / 2807008801

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
___	___	___	___	X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Industrial / Medowbrook Meat Co. / warehouse and distribution

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 23 / Bockelman, Fredrick C. / 954 E Riverview Ave / 28070036

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW ___ Strip ROW ___ Minor Take ___ Whole Parcel Take ___ Not Available X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 24 / Hartman, Patricia L. / 968 E Riverview Ave / 28070038

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 25 / Belcher, Wayne C. / 980 E Riverview Ave / 28070042

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 26 / Abbott III, Charles D. / 994 E Riverview Ave / 28070042

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 27 / Peper, Maureen M. / 1012 E Riverview / 28070044

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 28 / Schwaiger, Paul F. / 1030 E Riverview / 28070046

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 29 / Scheider Sherrie L. / 1048 E Riverview / 28070048

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 30 / Schnitkey Ann C. / 1801 Lamar Lane / 280795110020

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 31 / Wilson, Craig / 1811 Lamar Lane / 28079511012

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 32 / Smith, Ronald E. / 1821 Lamar lane / 28079511014

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW ___ Strip ROW ___ Minor Take ___ Whole Parcel Take ___ Not Available X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 33 / Vela, Gregory D. / 1831 Lamar Lane / 280795110160

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 34 / Detray, Scott W. / 1841 Lamar Lane / 280795110180

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 35 / Cruz, Robert F. / 1822 Lamar Lane / 280795110080

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 36 / Fruchey, Paul N. / 1802 Lamar Lane / 2807951101, 280795110040

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 37 / Mires, Shirlee / 1120 E Riverview / 280795110060

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 38 / Wurster Properties Inc. / 1212 E Riverview / 28079512002

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential Multifamily Housing

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 39 / Wurster Properties Inc. / 1140 E Riverview / 280795130020

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Residential Multifamily Housing

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 40 / Lankenau Properties I., LTD. / E Riverview / 28079513004

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Vacant Undeveloped Land

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 41 / City of Napoleon / Lot 1 Substation / 28079514002, 280795140020, 28079514006, 280795140080

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Public Utility

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	ERNS

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	YES	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes X No ____ Reason: 1,000 Gallon PCB Spill**

Associated with Alt 3, which has been removed from consideration.

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 42 / Toledo Edison Company / CR 12 / 280700029999

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Public Utility

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	Not Listed

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required **Yes** _____ **No** **X**

Environmental Site Assessment Screening Sheet

Name/Title: Ari Mckeever / Geologist

Date: April 16, 2013

County/Route/Section: HEN-New Maumee River Bridge (PID 22984)

District: 2

Project Description:

Proposed new road bridge across the Maumee River.

Parcel No./Owner/Address/Auditor's Parcel No.: 43 / Imperial Clevite, Inc. / 11-800 SR 424 / 27080004

Project Right-of-Way (Row) Requirements From Parcel:

No New ROW	Strip ROW	Minor Take	Whole Parcel Take	Not Available
				X

Land Use

Current Land Use (For commercial/industrial, provide current tenant's name and type of business)

Industrial, Tenneco, emission control, ride control products and systems for the automotive original equipment market and aftermarket

Past Land Use (For commercial/industrial, provide current tenant's name and type of business)

Environmental Records	Date Queried	Result
National Priority List (NPL)	July 9, 2012	Not Listed
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	June 7, 2012	Not Listed
OEPA Master Site List (MSL)	June 12, 2012	Not Listed
Resource Conservation and Recovery Act (RCRA)	July 10, 2012	Not Listed
Bureau of Underground Storage Tank Regulation (BUSTR)	August 16, 2012	Not Listed
Other State/Local Lists	Various	LUST

NPL/CERCLIS/OEPA MSL in vicinity (type of facility and location in relation to project)

Universal Cooperatives (DERR MSL), 0.75 miles north

Visual Inspection

USTs	None	Surface Staining	None
ASTs	None	Sheens	None
Drums	None	Damaged Vegetation	None
Landfills	None	Odors	None
Pond/Lagoon	None	Other(specify)	None

Phase I ESA required Yes __X__ No ____ **Reason: Industrial Manufacturing**

Associated with Alt. 3, which has been removed from consideration.

APPENDIX B
STUDY AREA LOCATION MAP

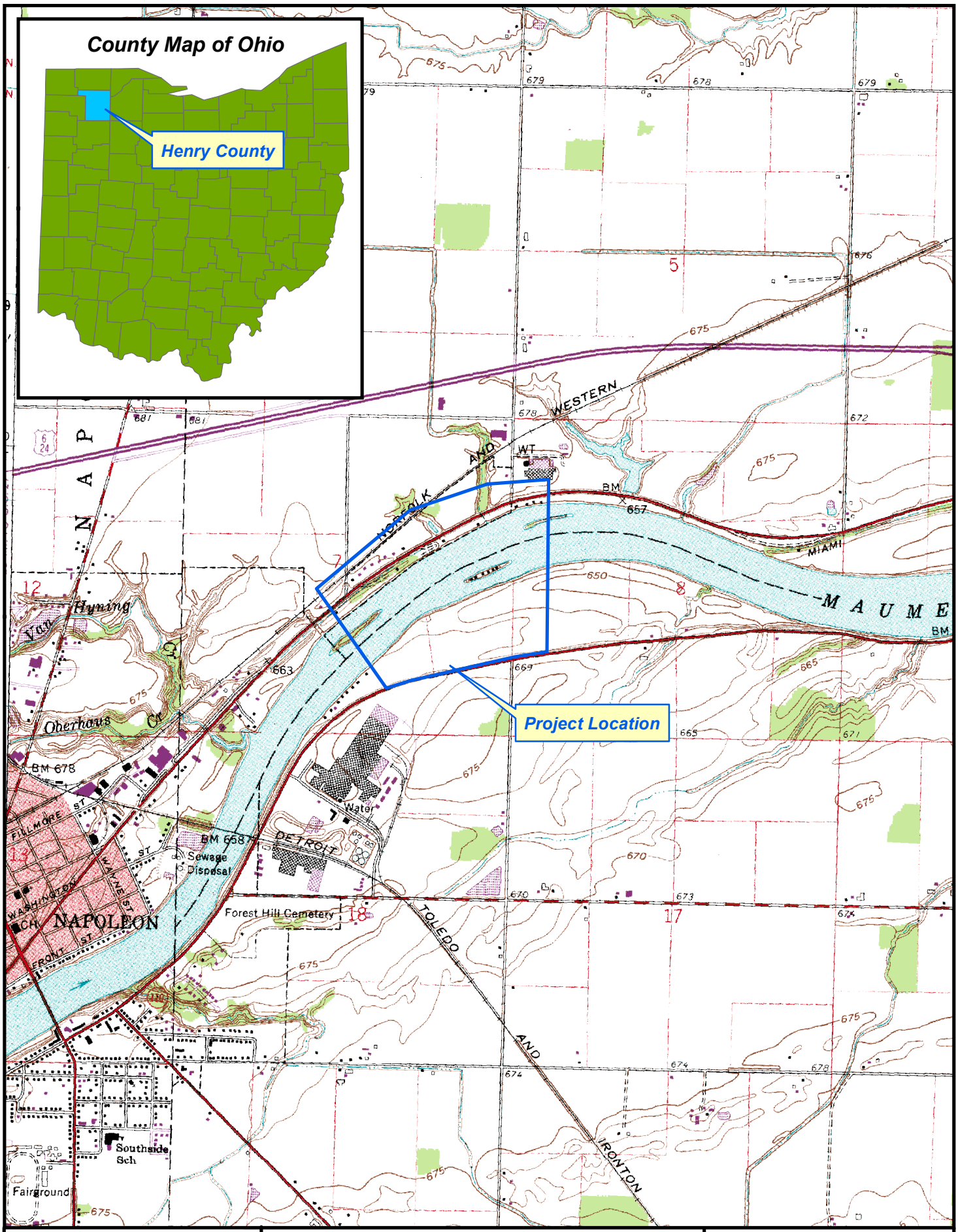

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Figure 1: Site Location Map
Proposed Maumee River Crossing
Napoleon, Ohio

Notes
USGS Quadrangle, 7.5' Series Topographic
Napoleon East, OH 1960, Revised 1977

Feet
0 1,000 2,000

APPENDIX C
STUDY AREA LAYOUT MAPS

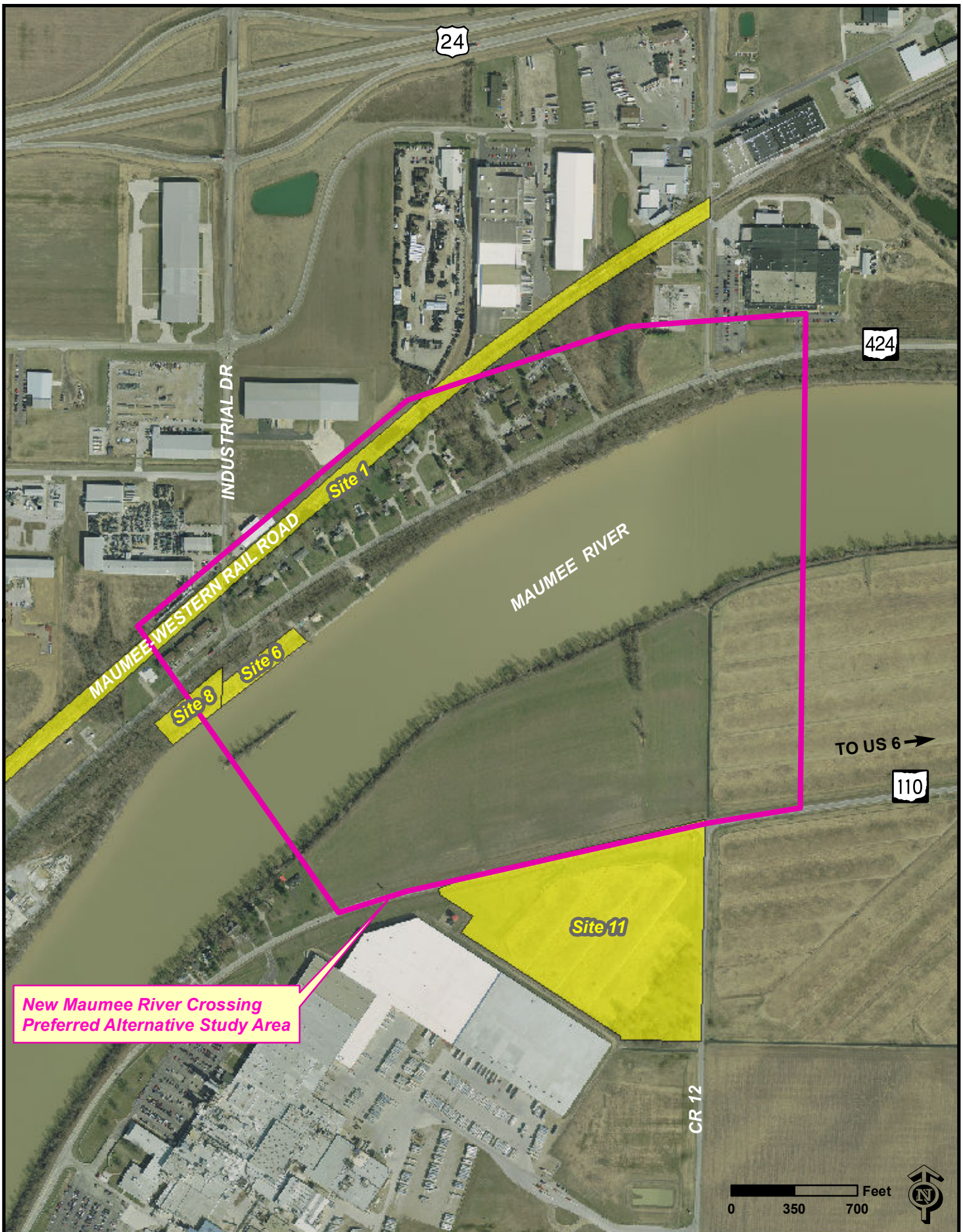

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Figure 2: Study Area Layout Map
Proposed Maumee River Crossing
Napoleon, Ohio

Notes

The Henry county photography, dated April 2012, is provided by OGRIP as part of the Ohio Statewide Imagery Program.

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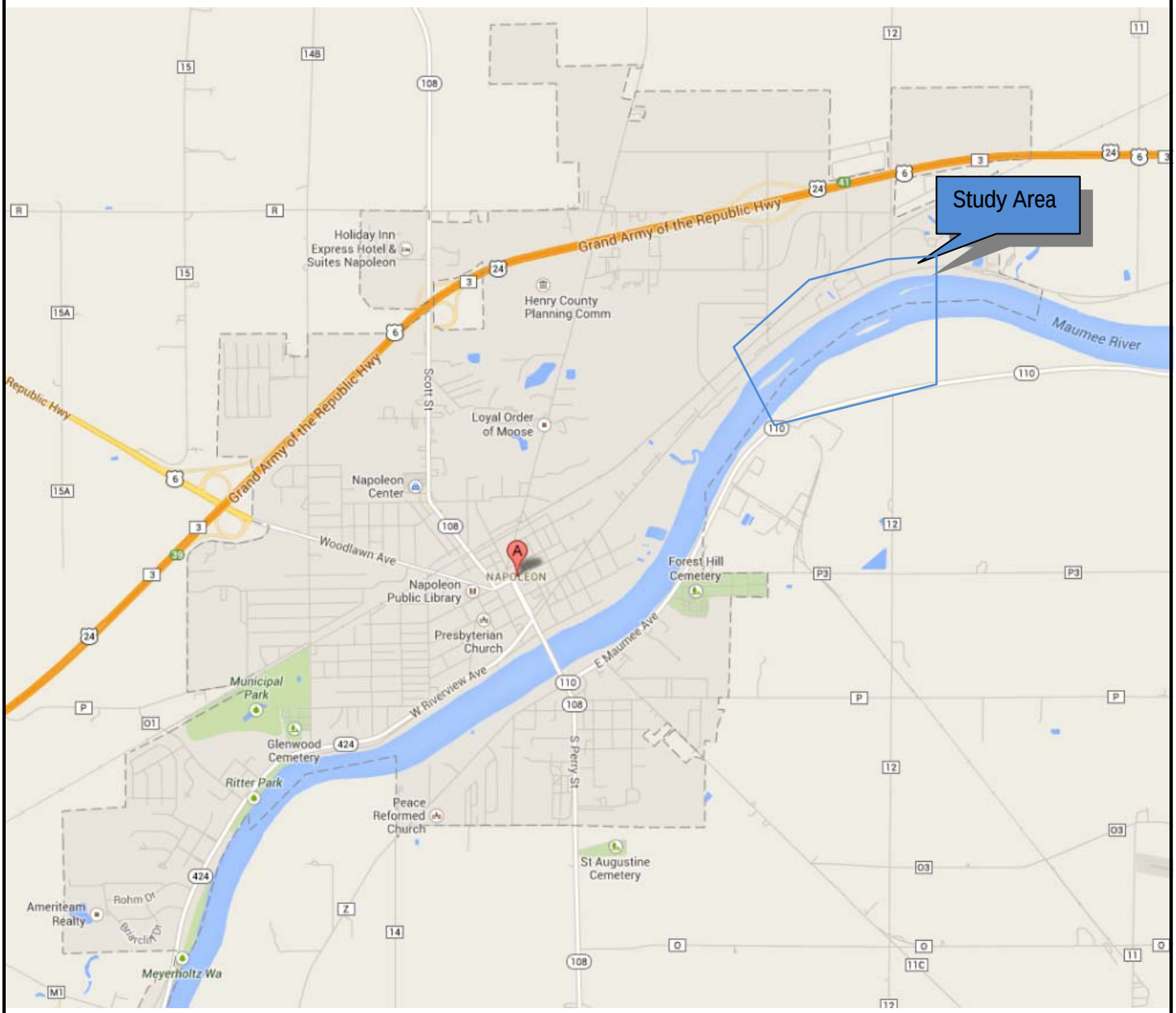
New Study Area and Parcels

Notes

The photography, dated April 2012, is provided by OGRIP as part of the Ohio Statewide Imagery Program.

Feet
0 200 400

N



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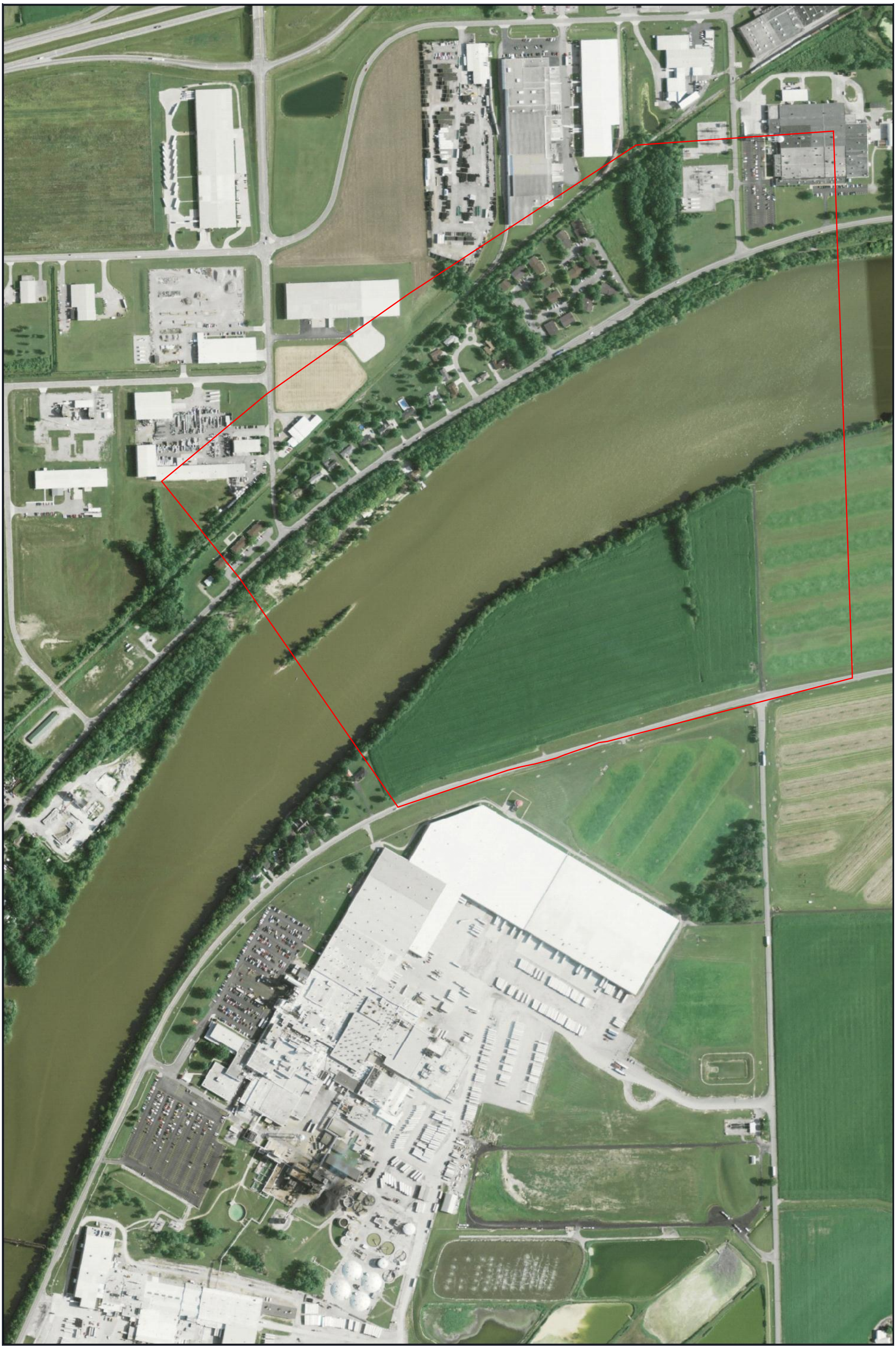
County Road Map

Notes
Imagery provided by Google

N

NTS

APPENDIX D
HISTORICAL MAPPING DOCUMENTATION



NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

2009

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

2004

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



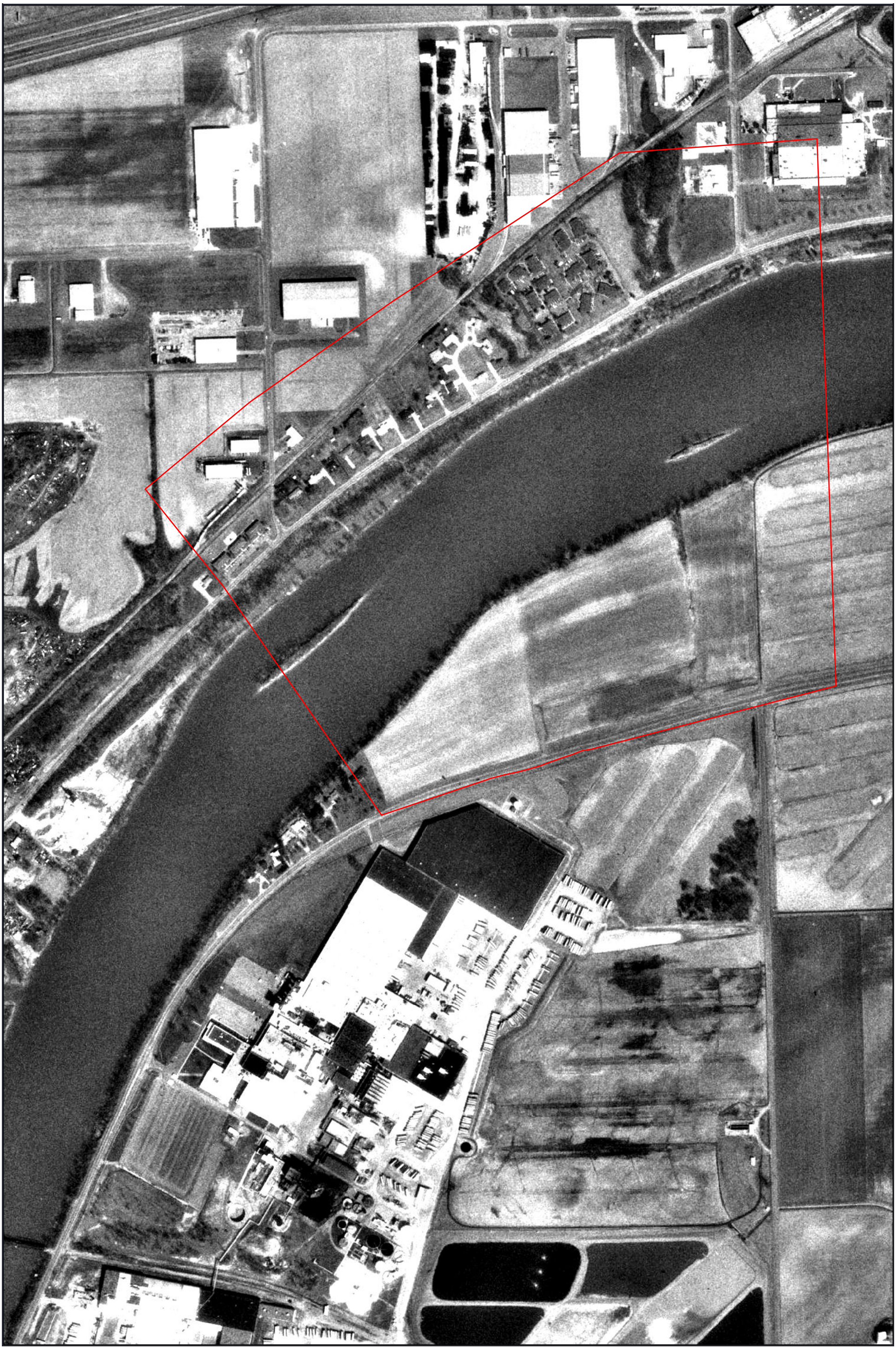
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

2000

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:9600 (1"=800')

HIG



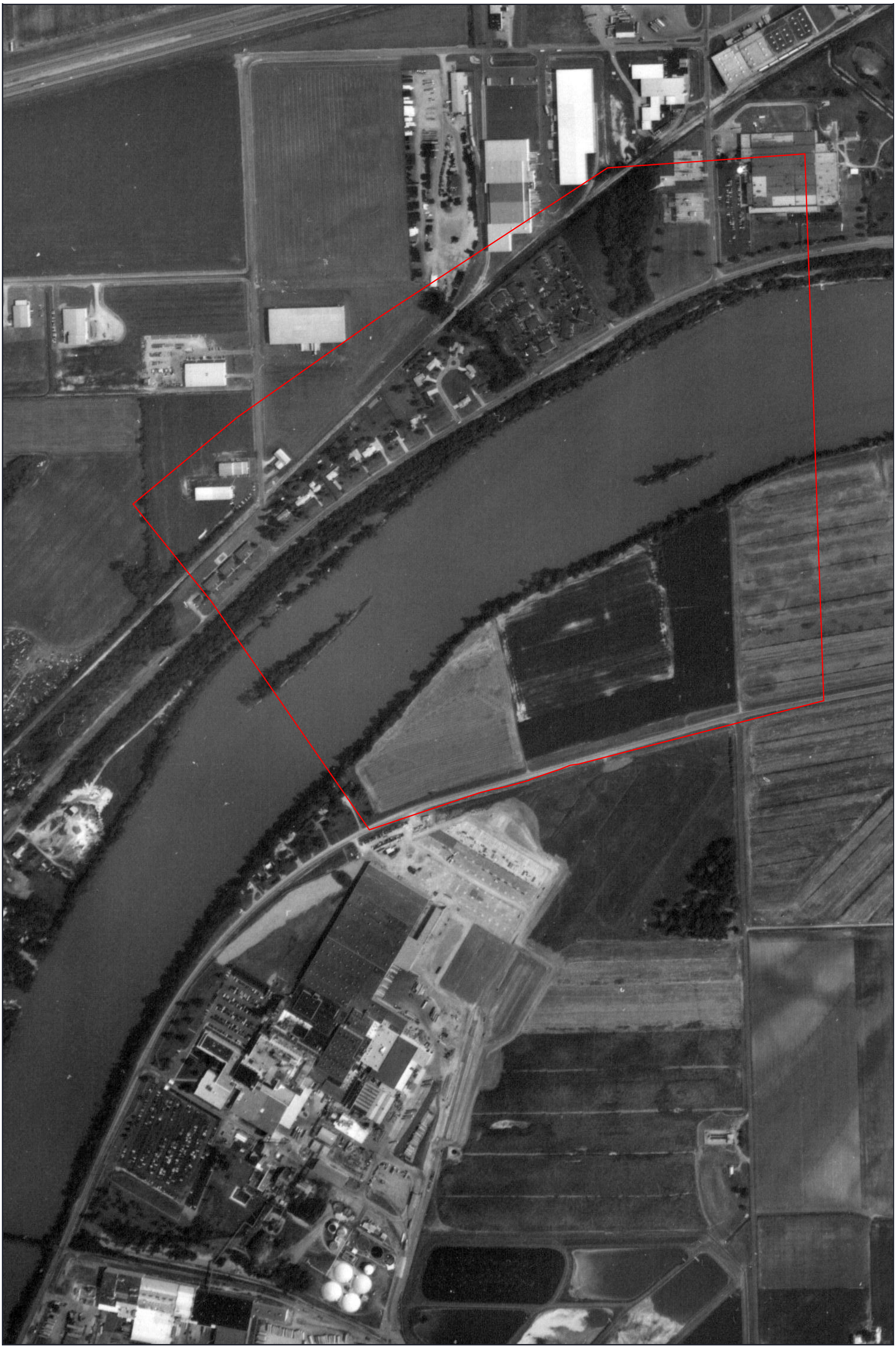
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1994

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



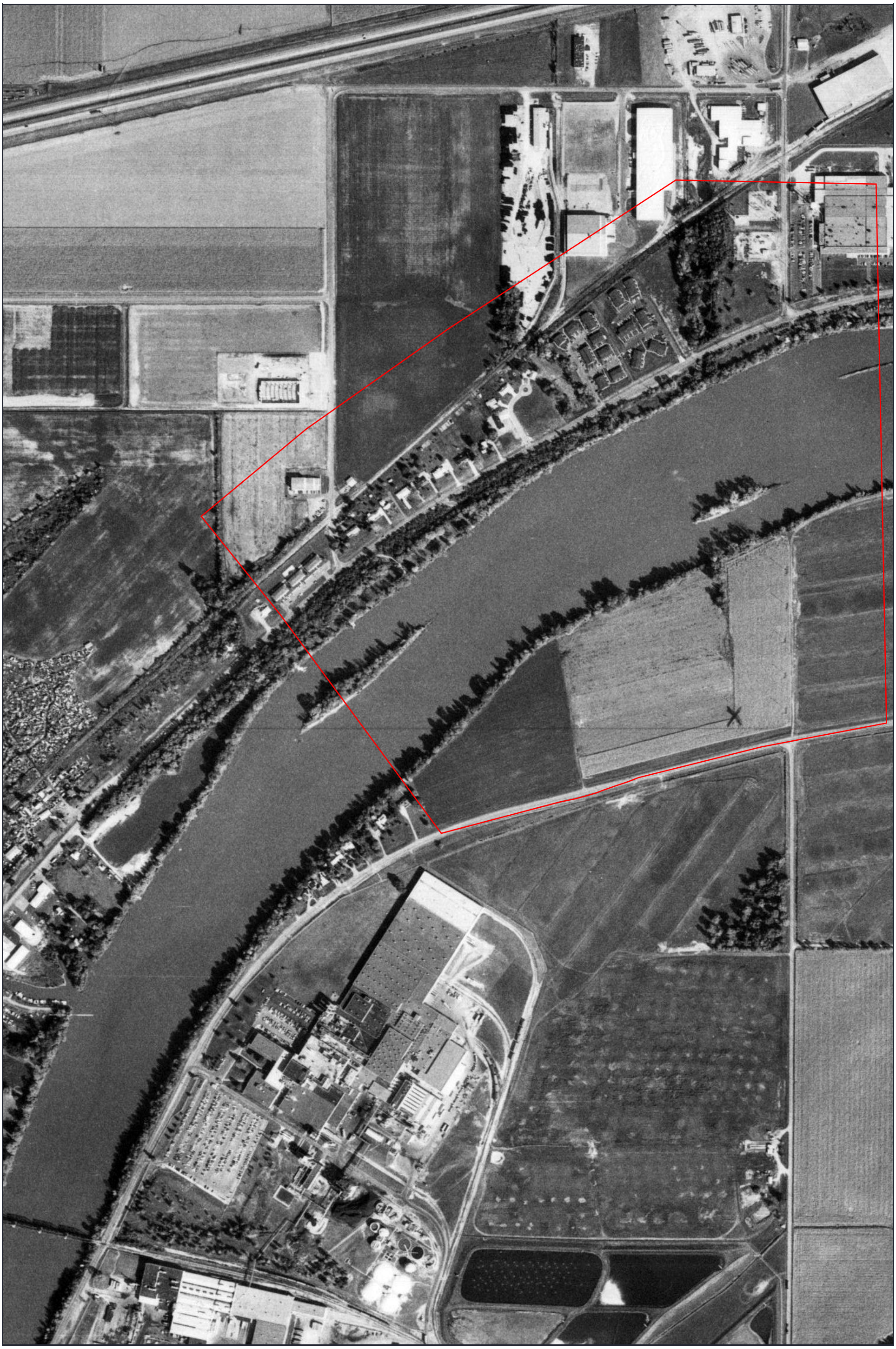
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1989

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1980

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG

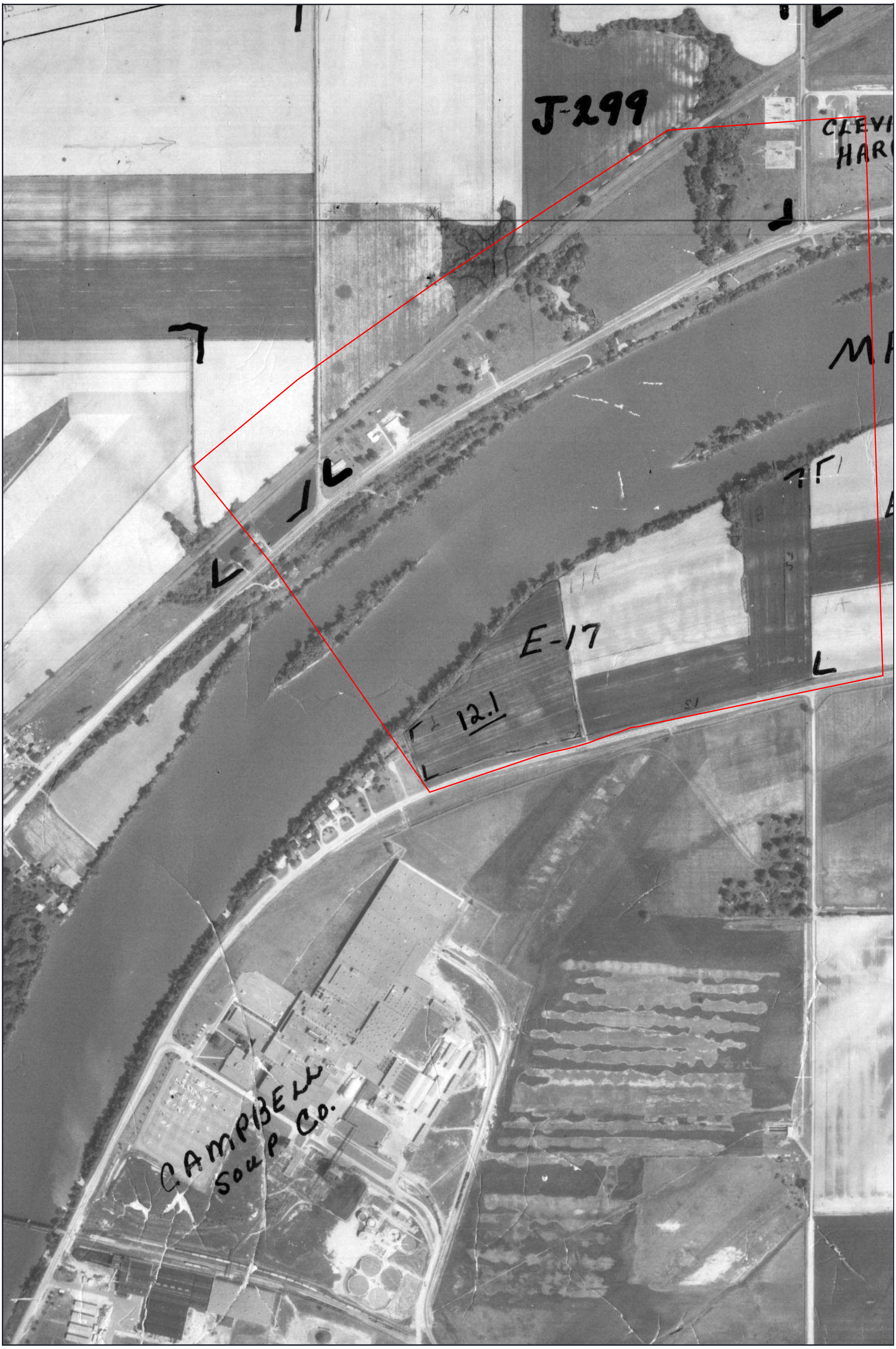


NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1971

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')



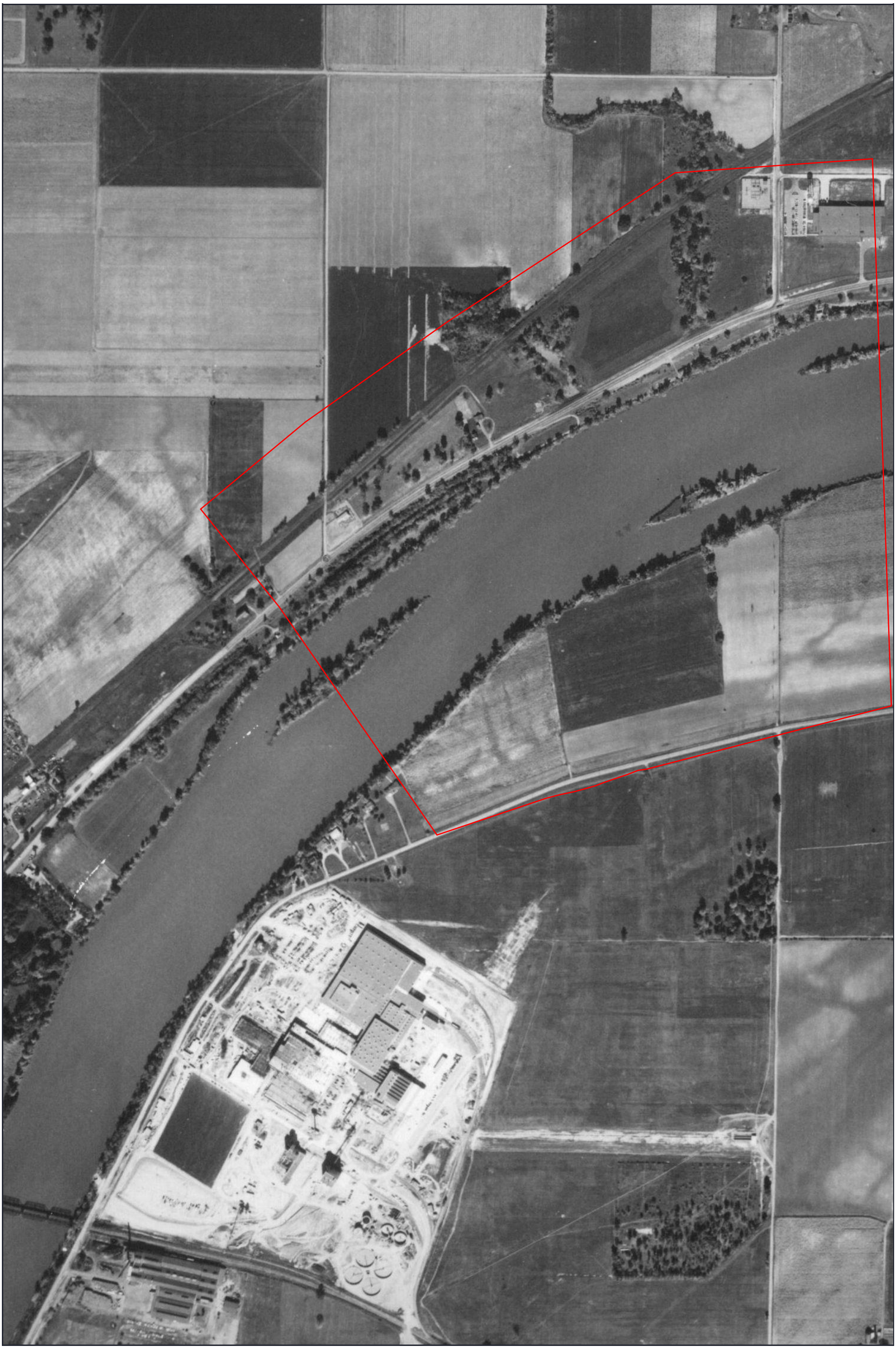
NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1963

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG



NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

1956

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')



NAPOLEON BRIDGE PROPOSAL
1675 INDUSTRIAL DRIVE SOUTHEAST
(ACROSS RIVER) TO CO RD 12
NAPOLEON, OH

N

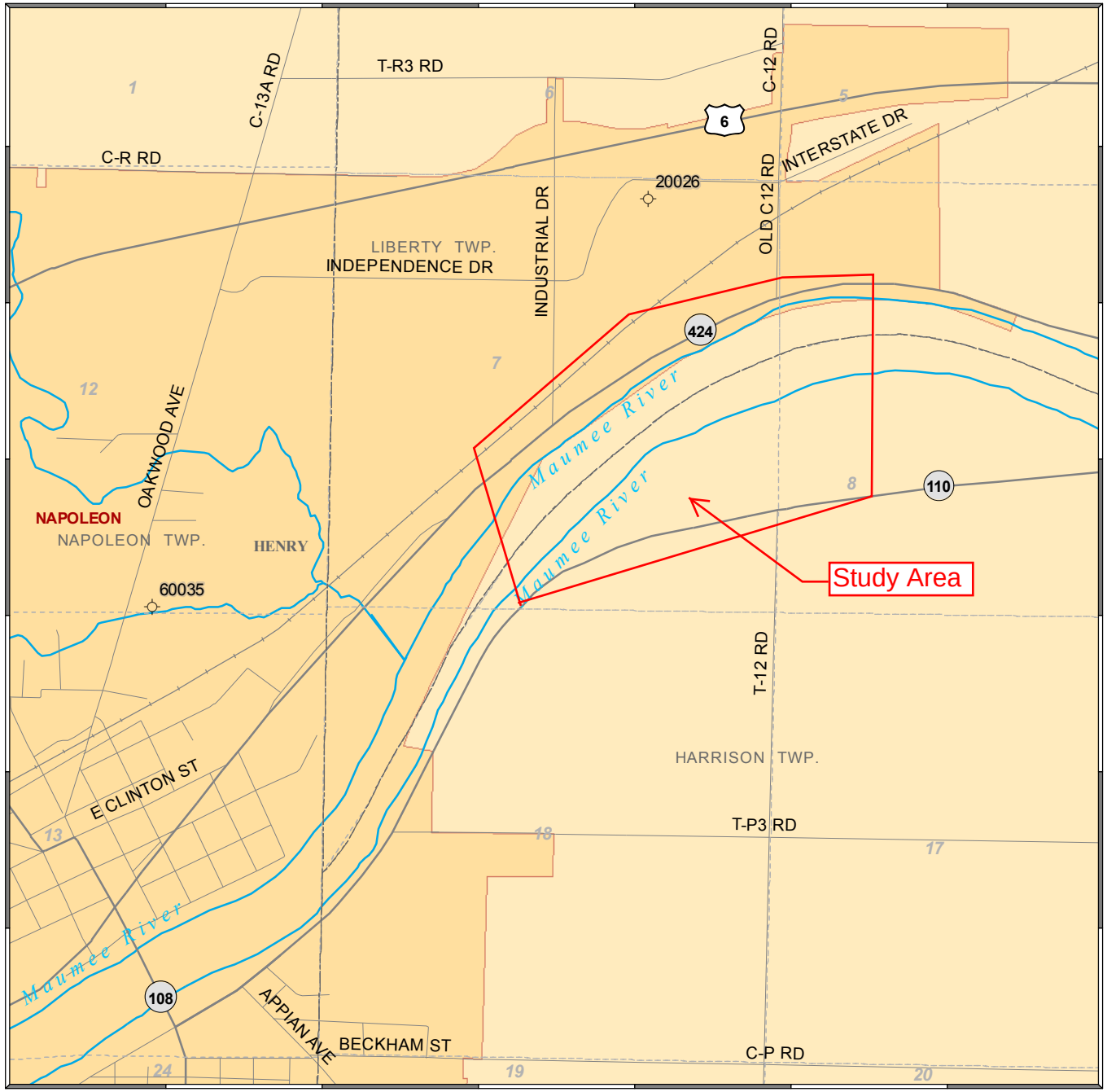
1950

HIG Project # 124893
Client Project # H2530001
Approximate Scale 1:6000 (1"=500')

HIG

APPENDIX E
OIL AND GAS FIELD MAP & ENVIRONMENTAL DATABASE SEARCH REPORT

OIL AND GAS WELL SPOT MAP



Well Symbols

★	Unknown	●	Oil
	Lost Hole		Oil and Gas
	Brine		Oil w/Gas Show
	Drilled Unknown status		Oil Show
	Dry Hole	○	Permitted Location
	Dry Gas Show		Plugged Brine
	Dry Oil Show		Plugged Gas
	Expired Permit		Plugged Injection
	Gas		Plugged Oil
	Gas Oil Show	RAD	Tool Lost in Hole
	Gas Show		Solution Mining
	Gas and Oil Show		Strat Test
	Injection		
	Observation		
PBWW	Converted to Water		

Map provided by the Ohio Geological Survey
http://www.ohiodnr.com/geosurvey

INDEX MAP



0 0.075 0.15 0.225 0.3 Miles

0 0.075 0.15 0.225 0.3 Kilometers

DISCLAIMER

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FirstSearch Technology Corporation

Environmental FirstSearch™ Report

Target Property: NEW MAUMEE RIVER CROSSING

INDUSTRIAL DR

NAPOLEON OH 43545

Job Number: H2530001

PREPARED FOR:

The Mannik Smith Group, Inc.

1800 Indian Wood Circle

Maumee, OH 43537

08-23-12

Tel: (781) 551-0470 *Fax: (781) 551-0471*

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Environmental FirstSearch
Search Summary Report

Target Site: INDUSTRIAL DR
NAPOLEON OH 43545

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	07-09-12	0.25	0	0	0	-	-	0	0
NPL Delisted	Y	07-09-12	0.25	0	0	0	-	-	0	0
CERCLIS	Y	06-07-12	0.25	0	0	0	-	-	0	0
NFRAP	Y	06-07-12	0.25	0	0	0	-	-	0	0
RCRA COR ACT	Y	07-10-12	0.25	0	0	3	-	-	0	3
RCRA TSD	Y	07-10-12	0.25	0	0	0	-	-	0	0
RCRA GEN	Y	07-10-12	0.25	0	0	1	-	-	0	1
Federal Brownfield	Y	07-15-12	0.25	0	0	0	-	-	0	0
ERNS	Y	07-05-12	0.25	0	0	0	-	-	0	0
Tribal Lands	Y	12-15-08	0.25	0	0	0	-	-	1	1
State/Tribal Sites	Y	06-12-12	0.25	0	0	0	-	1	0	1
State Spills 90	Y	06-18-12	0.25	0	1	3	-	-	2	6
State/Tribal SWL	Y	06-02-10	0.25	0	0	0	-	-	0	0
State/Tribal LUST	Y	08-16-12	0.25	0	3	0	-	-	9	12
State/Tribal UST/AST	Y	08-16-12	0.25	0	1	0	-	-	0	1
State/Tribal EC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal IC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	06-12-12	0.25	0	0	0	-	-	0	0
State/Tribal Brownfields	Y	06-01-12	0.25	0	0	0	-	-	0	0
State Other	Y	03-07-07	0.25	0	0	0	-	-	0	0
FI Map Coverage	Y	07-27-11	0.12	0	0	-	-	2	0	2
Federal IC/EC	Y	06-13-12	0.25	0	0	0	-	-	0	0
- TOTALS -				0	5	7	0	3	12	27

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to FirstSearch Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in FirstSearch Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

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Environmental FirstSearch
Site Information Report

Request Date:	08-23-12	**Search Type:**	AREA
Requestor Name:	Anthony C. Rehrmann		0.11 sq mile(s)
Standard:	AREA	**Job Number:**	H2530001
		Filtered Report	

Target Site: INDUSTRIAL DR
NAPOLEON OH 43545

Demographics

Sites:	27	**Non-Geocoded:**	12	**Population:**	NA
Radon:	0.1 - 4 PCI/L				

Site Location

	Degrees (Decimal)	**Degrees (Min/Sec)**		**UTMs**
Longitude:	-84.10126	-84:6:5	**Easting:**	742313.672
Latitude:	41.403962	41:24:14	**Northing:**	4587445.432
Elevation:	N/A		**Zone:**	16

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 0 Mile(s)

ZIP Code	City Name	ST	Dist/Dir	Sel

Services:

	Requested?	Date
Fire Insurance Maps	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search/Env Liens	No	
Municipal Reports	No	
Online Topos	No	

Environmental FirstSearch
Sites Summary Report

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

TOTAL: 27 **GEOCODED:** 15 **NON GEOCODED:** 12 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
1	SPILLS	NAPOLEON CITY OF 2001-3971	1775 INDUSTRIAL DR NAPOLEON OH 43545	0.05 NW	N/A	1
1	UST	MUNICIPAL SERVICE BUILDING 35000020/CURRENTLY IN USE	1775 INDUSTRIAL DR NAPOLEON OH 43545	0.05 NW	N/A	1
1	LUST	MUNICIPAL SERVICE BUILDING 35000020-N00001/FACILITY INACTIVE	1775 INDUSTRIAL DR NAPOLEON OH 43545	0.05 NW	N/A	2
1	LUST	MUNICIPAL SERVICE BUILDING 35000020-N00003/FACILITY INACTIVE	1775 INDUSTRIAL DR NAPOLEON OH 43545	0.05 NW	N/A	2
1	LUST	MUNICIPAL SERVICE BUILDING 35000020-N00002/FACILITY INACTIVE	1775 INDUSTRIAL DR NAPOLEON OH 43545	0.05 NW	N/A	3
2	RCRAGN	CARSON INDUSTRIES LLC OHR000118984/LGN	1675 INDUSTRIAL DR NAPOLEON OH 43545	0.17 NW	N/A	5
3	SPILLS	 OHSP-0707-2200	12 STATE ROUTE 110 NAPOLEON OH 43545	0.17 SW	N/A	6
3	RCRACOR	CAMPBELL SOUP SUPPLY CO - BEVE OHD987046703/CA	12 STATE ROUTE 110 NAPOLEON OH 43545	0.17 SW	N/A	8
3	RCRACOR	CAMPBELL SOUP SUPPLY CO - SOUP OHD005419171/CA	12 STATE ROUTE 110 NAPOLEON OH 43545	0.17 SW	N/A	10
3	RCRACOR	CAMPBELL SOUP SUPPLY COMPANY OHD987023678/CA	P 152 CO RD NAPOLEON OH 43545	0.17 SW	N/A	14
4	SPILLS	 2006-96	COMMERCE and INTERCHANGE RD NAPOLEON OH 43545	0.25 NW	N/A	15
4	SPILLS	 OHSP-0506-96	COMMERCE RD and INTERCHANGE NAPOLEON OH 43545	0.25 NW	N/A	15
5	FIMAP	FIRE INSURANCE MAP OH-FS-306/SANBORN	 NAPOLEON OH	0.56 SW	N/A	16
6	STATE	UNIVERSAL COOPERATIVES INC, AL DERR-335000848/DERR DATABASE	1253 INDUSTRIAL CR 12 DR NAPOLEON OH 43545	0.56 NE	N/A	17
7	FIMAP	FIRE INSURANCE MAP OH-FS-301/SANBORN	 NAPOLEON OH	0.81 SW	N/A	18

Environmental FirstSearch
Sites Summary Report

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

TOTAL: 27 **GEOCODED:** 15 **NON GEOCODED:** 12 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	LUST	FRANCIS and LOIS BROWN 35002314-N00001/FACILITY INACTIVE	385 E TOWNSHIP ROAD NAPOLEON OH 43545	NON GC	N/A	N/A
	LUST	J and L PLANT FOOD, INC. 35002217-N00001/FACILITY ACTIVE	2437 STATE ROUTE 6 NAPOLEON OH 43545	NON GC	N/A	N/A
	LUST	L.R. BABCOCK 35000031-N00002/FACILITY INACTIVE	387 FREEDOM DR NAPOLEON OH 43545	NON GC	N/A	N/A
	LUST	CLEVITE ELASTOMERS 35009960-N00001/FACILITY INACTIVE	EAST RT 424 NAPOLEON OH 43545	NON GC	N/A	N/A
	SPILLS	2005-777	INDEPENDENCE DR NAPOLEON OH 43545	NON GC	N/A	N/A
	SPILLS	UNK 2001-2999	9 STATE ROUTE 110 NAPOLEON OH 43545	NON GC	N/A	N/A
	LUST	OHIO BELL TELEPHONE CO. 35000066-N00001/FACILITY INACTIVE	HENRY COUNTY RD NAPOLEON OH 43545	NON GC	N/A	N/A
	LUST	REESE RESIDENT 35009984-N00001/FACILITY INACTIVE	712 N SCOTT ST NAPOLEON OH 43545	NON GC	N/A	N/A
	TRIBALLAND	BUREAU OF INDIAN AFFAIRS CONTA BIA-43545	UNKNOWN OH 43545	NON GC	N/A	N/A
	LUST	RIDGEVILLE ELEVATOR 35002310-N00001/FACILITY INACTIVE	20903 RIDGEVILLE CORNER NAPOLEON OH 43545	NON GC	N/A	N/A
	LUST	RIGHT OF WAY 35009996-N00001/FACILITY ACTIVE	N PERRY WEST FRONT ST NAPOLEON OH 43545	NON GC	N/A	N/A
	LUST	L.R. BABCOCK 35000031-N00003/FACILITY INACTIVE	387 FREEDOM DR NAPOLEON OH 43545	NON GC	N/A	N/A

Environmental FirstSearch
Site Detail Report

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

SPILLS

SEARCH ID: 2 **DIST/DIR:** 0.05 NW **ELEVATION:** 680 **MAP ID:** 1

NAME: NAPOLEON CITY OF
ADDRESS: 1775 INDUSTRIAL DR
NAPOLEON OH
HENRY
CONTACT:
SOURCE:

REV: 4/22/04
ID1: 2001-3971
ID2: 3971.00
STATUS:
PHONE:

SITE INFORMATION

SPILL YEAR: 2001
SPILL NUMBER: 3971
REPORT DATE: 10/18/2001
PRODUCT: DIESEL FUEL
AMOUNT:
SIZE: UNKNOWN
TYPE: HYDROCARBON
WATERWAY: N/A
STREAM MILES:

UST

SEARCH ID: 3 **DIST/DIR:** 0.05 NW **ELEVATION:** 680 **MAP ID:** 1

NAME: MUNICIPAL SERVICE BUILDING
ADDRESS: 1775 INDUSTRIAL DR
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: OH FMO

REV: 3/1/12
ID1: 35000020
ID2:
STATUS: CURRENTLY IN USE
PHONE:

FACILITY TYPE: LOCAL GOVERNMENT
OWNER: CITY OF NAPOLEON
255 W RIVERVIEW
NAPOLEON OH 43545

Environmental FirstSearch
Site Detail Report

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

LUST

SEARCH ID: 4 **DIST/DIR:** 0.05 NW **ELEVATION:** 680 **MAP ID:** 1

NAME: MUNICIPAL SERVICE BUILDING
ADDRESS: 1775 INDUSTRIAL DR
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: OH FMO

REV: 8/16/12
ID1: 35000020-N00001
ID2:
STATUS: FACILITY INACTIVE
PHONE:

THIS SITE IS PART OF THE FACILITIES WITH ACTIVE RELEASES FROM REGULATED TANKS LIST

SITE INFORMATION

RELEASE NUMBER: 35000020-N00001
RELEASE DATE:
PRIORITY: 3
REVIEW DATE: 6/20/2000
LTF STATUS: Closure of regulated UST
FR STATUS: NFA: No Further Action

LUST

SEARCH ID: 5 **DIST/DIR:** 0.05 NW **ELEVATION:** 680 **MAP ID:** 1

NAME: MUNICIPAL SERVICE BUILDING
ADDRESS: 1775 INDUSTRIAL DR
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: OH FMO

REV: 8/16/12
ID1: 35000020-N00003
ID2:
STATUS: FACILITY INACTIVE
PHONE:

THIS SITE IS PART OF THE FACILITIES WITH ACTIVE RELEASES FROM REGULATED TANKS LIST

SITE INFORMATION

RELEASE NUMBER: 35000020-N00003
RELEASE DATE: 01/24/2012
PRIORITY: 2
REVIEW DATE: 4/13/2012
LTF STATUS: Closure of regulated UST
FR STATUS: NFA: No Further Action

Environmental FirstSearch
Site Detail Report

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

LUST

SEARCH ID: 6 **DIST/DIR:** 0.05 NW **ELEVATION:** 680 **MAP ID:** 1

NAME: MUNICIPAL SERVICE BUILDING
ADDRESS: 1775 INDUSTRIAL DR
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: OH FMO

REV: 8/16/12
ID1: 35000020-N00002
ID2:
STATUS: FACILITY INACTIVE
PHONE:

THIS SITE IS PART OF THE FACILITIES WITH ACTIVE RELEASES FROM REGULATED TANKS LIST

SITE INFORMATION

RELEASE NUMBER: 35000020-N00002
RELEASE DATE: 10/18/2001
PRIORITY: 2
REVIEW DATE: 7/20/2011
LTF STATUS: Suspected or Confirmed release from regulated UST
FR STATUS: NFA: No Further Action

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

RCRAGN

SEARCH ID: 1 **DIST/DIR:** 0.17 NW **ELEVATION:** 679 **MAP ID:** 2

NAME: CARSON INDUSTRIES LLC
ADDRESS: 1675 INDUSTRIAL DR
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: EPA

REV: 7/10/12
ID1: OHR000118984
ID2:
STATUS: LGN
PHONE:

SITE INFORMATION

CONTACT INFORMATION: IAN D MARTEN
1675 INDUSTRIAL DR
NAPOLEON OH 43545

PHONE: 4195922309

OWNER NAME: CARSON INDUSTRIES
OWNER TYPE: P-PRIVATE
OPERATOR: CARSON INDUSTRIES
OPERATOR_TYPE: P-PRIVATE
MAILING ADDRESS: 1675 INDUSTRIAL DR
NAPOLEON, OH 43

UNIVERSE INFORMATION:

RECEIVED DATE: 03/15/2004

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO
SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD: -----
CLOSURE WORKLOAD: -----
POST CLOSURE WORKLOAD: -----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: -----
CORRECTIVE ACTION WORKLOAD: N - NO
GENERATOR STATUS: LQG - LARGE QUANTITY GENERATORS: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:	N-NO	**ENGINEERING CONTROL:**	N
HUMAN EXPOSURE:	N-NO	**GW CONTROLS:**	N- NO
LAND TYPE:	P-PRIVATE	**SHORT TERM GEN:**	N
TRANS FACILITY:	N	**REC WASTE FROM OFF SITE:**	N
IMPORTER ACTIVITY:	N - NO	**MIXED WASTE GEN:**	N - NO
TRANS ACTIVITY:	N - NO	**TSD ACTIVITY:**	N - NO
RECYCLER ACTIVITY:	N - NO	**ONSITE BURNER EXEMPT:**	N - NO
FURNACE EXEMPTION:	N - NO	**UNDER INJECT ACTIVITY:**	N - NO
REC WASTE FROM OFF SITE:	N - NO	**UNIV WASTE DEST FAC:**	N
USED OIL TRANS:	N - NO	**USED OIL PROCESSOR:**	N - NO
USED OIL REFINER:	N - NO	**USED OIL FUEL BURNER:**	N - NO
UO FUEL MARKETER TO BURNER:	N	**USED OIL SPEC MARKETER:**	N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

RCRAGN

SEARCH ID: 1 **DIST/DIR:** 0.17 NW **ELEVATION:** 679 **MAP ID:** 2

NAME: CARSON INDUSTRIES LLC
ADDRESS: 1675 INDUSTRIAL DR
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: EPA

REV: 7/10/12
ID1: OHR000118984
ID2:
STATUS: LGN
PHONE:

33322 - PLASTICS AND RUBBER INDUSTRY MACHINERY MANUFACTURING

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste

Environmental FirstSearch
Site Detail Report

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

SPILLS

SEARCH ID: 15 **DIST/DIR:** 0.17 SW **ELEVATION:** **MAP ID:** 3

NAME:
ADDRESS: 12 STATE ROUTE 110
NAPOLEON OH
HENRY
CONTACT:
SOURCE:

REV: 7/9/07
ID1: OHSP-0707-2200
ID2: 2200.00
STATUS:
PHONE:

SITE INFORMATION

SPILL YEAR:	2007
SPILL NUMBER:	2200
DATE REPORTED:	6/7/2007 00:00:00
PRODUCT:	WASTE WATER
REPORTED BY:	MIKE MARINGER
SUSPECTED SPILLER:	CAMPBELL SOUP

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

RCRACOR

SEARCH ID: 9 **DIST/DIR:** 0.17 SW **ELEVATION:** **MAP ID:** 3

NAME: CAMPBELL SOUP SUPPLY CO - BEVERAGE PLANT
ADDRESS: 12 STATE ROUTE 110
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: EPA

REV: 7/10/12
ID1: OHD987046703
ID2:
STATUS: CA
PHONE:

SITE INFORMATION

CONTACT INFORMATION: GEOFFREY L SANS
PO BOX 311
NAPOLEON OH 43545

PHONE: 4195921010 6631

OWNER NAME: CAMPBELL SOUP SUPPLY CO
OWNER TYPE: P-PRIVATE
OPERATOR: CAMPBELL SOUP SUPPLY CO
OPERATOR_TYPE: P-PRIVATE
MAILING ADDRESS: PO BOX 311
NAPOLEON,

UNIVERSE INFORMATION:

RECEIVED DATE: 07/12/2011

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO
SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD: -----
CLOSURE WORKLOAD: -----
POST CLOSURE WORKLOAD: -----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: -----
CORRECTIVE ACTION WORKLOAD: N - NO
GENERATOR STATUS: SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:	N-NO	**ENGINEERING CONTROL:**	N
HUMAN EXPOSURE:	N-NO	**GW CONTROLS:**	N- NO
LAND TYPE:	P-PRIVATE	**SHORT TERM GEN:**	N
TRANS FACILITY:	N	**REC WASTE FROM OFF SITE:**	N
IMPORTER ACTIVITY:	N - NO	**MIXED WASTE GEN:**	N - NO
TRANS ACTIVITY:	N - NO	**TSD ACTIVITY:**	N - NO
RECYCLER ACTIVITY:	N - NO	**ONSITE BURNER EXEMPT:**	N - NO
FURNACE EXEMPTION:	N - NO	**UNDER INJECT ACTIVITY:**	N - NO
REC WASTE FROM OFF SITE:	N - NO	**UNIV WASTE DEST FAC:**	N
USED OIL TRANS:	N - NO	**USED OIL PROCESSOR:**	N - NO
USED OIL REFINER:	N - NO	**USED OIL FUEL BURNER:**	N - NO
UO FUEL MARKETER TO BURNER:	N	**USED OIL SPEC MARKETER:**	N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

RCRACOR

SEARCH ID: 9 **DIST/DIR:** 0.17 SW **ELEVATION:** **MAP ID:** 3

NAME: CAMPBELL SOUP SUPPLY CO - BEVERAGE PLANT
ADDRESS: 12 STATE ROUTE 110
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: EPA

REV: 7/10/12
ID1: OHD987046703
ID2:
STATUS: CA
PHONE:

311999 - ALL OTHER MISCELLANEOUS FOOD MANUFACTURING

ENFORCEMENT INFORMATION:

AGENCY:	STATE	**DATE:**	94/26/1994
TYPE:	WRITTEN INFORMAL		
AGENCY:	STATE	**DATE:**	94/23/1994
TYPE:	WRITTEN INFORMAL		
AGENCY:	STATE	**DATE:**	03/14/2003
TYPE:	WRITTEN INFORMAL		

VIOLATION INFORMATION:

VIOLATION NUMBER:	1	**RESPONSIBLE:**	S - STATE
DETERMINED:	94/05/1994	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	94/12/1994
TYPE:	GENERATORS - PRE-TRANSPORT		
VIOLATION NUMBER:	2	**RESPONSIBLE:**	S - STATE
DETERMINED:	94/05/1994	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	94/12/1994
TYPE:	GENERATORS - PRE-TRANSPORT		
VIOLATION NUMBER:	3	**RESPONSIBLE:**	S - STATE
DETERMINED:	03/10/2003	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	03/12/2003
TYPE:	GENERATORS - GENERAL		

CORRECTIVE ACTION INFORMATION

CA EVENT: 06/01/2006 CA002IL

CA EVENT: 09/09/2009 CA011

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste
D002 - Corrosive waste
D009 - Mercury
D013 - Lindane (1,2,3,4,5,6-hexa-chlorocyclohexane, gamma isomer)
D014 - Methoxychlor (1,1,1-trichloro-2,2-bis <p-methoxyphenyl> ethane)
D022 - Chloroform
F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
U080 - Methane, dichloro- (OR) Methylene chloride

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

RCRACOR

SEARCH ID: 10 **DIST/DIR:** 0.17 SW **ELEVATION:** **MAP ID:** 3

NAME: CAMPBELL SOUP SUPPLY CO - SOUP PLANT
ADDRESS: 12 STATE ROUTE 110
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: EPA

REV: 7/10/12
ID1: OHD005419171
ID2:
STATUS: CA
PHONE:

SITE INFORMATION

CONTACT INFORMATION: GEOFFREY L SANS
PO BOX 311
NAPOLEON OH 43545

PHONE: 4195921010 6631

OWNER NAME: CAMPBELL SOUP SUPPLY CO
OWNER TYPE: P-PRIVATE
OPERATOR: CAMPBELL SOUP SUPPLY CO
OPERATOR_TYPE: P-PRIVATE
MAILING ADDRESS: PO BOX 311
NAPOLEON, OH

UNIVERSE INFORMATION:

RECEIVED DATE: 07/12/2011

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: Y - SUBJECT TO CORRECTIVE ACTION
SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD: -----
CLOSURE WORKLOAD: -----
POST CLOSURE WORKLOAD: -----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: L----
CORRECTIVE ACTION WORKLOAD: Y - CORRECTIVE ACTION WORKLOAD
GENERATOR STATUS: SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:	N-NO	**ENGINEERING CONTROL:**	N
HUMAN EXPOSURE:	+	**GW CONTROLS:**	+
LAND TYPE:	P-PRIVATE	**SHORT TERM GEN:**	N
TRANS FACILITY:	N	**REC WASTE FROM OFF SITE:**	N
IMPORTER ACTIVITY:	N - NO	**MIXED WASTE GEN:**	N - NO
TRANS ACTIVITY:	N - NO	**TSD ACTIVITY:**	N - NO
RECYCLER ACTIVITY:	N - NO	**ONSITE BURNER EXEMPT:**	N - NO
FURNACE EXEMPTION:	N - NO	**UNDER INJECT ACTIVITY:**	N - NO
REC WASTE FROM OFF SITE:	N - NO	**UNIV WASTE DEST FAC:**	N
USED OIL TRANS:	N - NO	**USED OIL PROCESSOR:**	N - NO
USED OIL REFINER:	N - NO	**USED OIL FUEL BURNER:**	N - NO
UO FUEL MARKETER TO BURNER:	N	**USED OIL SPEC MARKETER:**	N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

RCRACOR

SEARCH ID: 10 **DIST/DIR:** 0.17 SW **ELEVATION:** **MAP ID:** 3

NAME: CAMPBELL SOUP SUPPLY CO - SOUP PLANT
ADDRESS: 12 STATE ROUTE 110
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: EPA

REV: 7/10/12
ID1: OHD005419171
ID2:
STATUS: CA
PHONE:

311422 - SPECIALTY CANNING
311711 - SEAFOOD CANNING

ENFORCEMENT INFORMATION:

AGENCY:	EPA	**DATE:**	93/02/1993
TYPE:	WRITTEN INFORMAL		
AGENCY:	STATE	**DATE:**	00/16/2000
TYPE:	WRITTEN INFORMAL		
AGENCY:	STATE	**DATE:**	00/06/2000
TYPE:	INITIAL 3008(A) COMPLIANCE		
AGENCY:	STATE	**DATE:**	00/18/2000
TYPE:	FINAL 3008(A) COMPLIANCE ORDER		
AGENCY:	STATE	**DATE:**	03/25/2003
TYPE:	WRITTEN INFORMAL		
AGENCY:	STATE	**DATE:**	03/14/2003
TYPE:	WRITTEN INFORMAL		

VIOLATION INFORMATION:

VIOLATION NUMBER:	1	**RESPONSIBLE:**	E - EPA
DETERMINED:	93/19/1993	**DETERMINED BY:**	E - EPA
CITATION:		**RESOLVED:**	94/20/1994
TYPE:	SPECIFIC - BOILERS AND INDUSTRIAL FURNACES		
VIOLATION NUMBER:	2	**RESPONSIBLE:**	S - STATE
DETERMINED:	00/23/2000	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	04/09/2004
TYPE:	GENERATORS - GENERAL		
VIOLATION NUMBER:	3	**RESPONSIBLE:**	S - STATE
DETERMINED:	03/22/2003	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	04/09/2004
TYPE:	TSD - FINANCIAL REQUIREMENTS		
VIOLATION NUMBER:	4	**RESPONSIBLE:**	S - STATE
DETERMINED:	03/22/2003	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	04/09/2004
TYPE:	TSD - FINANCIAL REQUIREMENTS		
VIOLATION NUMBER:	5	**RESPONSIBLE:**	S - STATE
DETERMINED:	03/22/2003	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	04/09/2004
TYPE:	TSD - FINANCIAL REQUIREMENTS		

- Continued on next page -

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

RCRACOR

SEARCH ID: 10 **DIST/DIR:** 0.17 SW **ELEVATION:** **MAP ID:** 3

NAME: CAMPBELL SOUP SUPPLY CO - SOUP PLANT
ADDRESS: 12 STATE ROUTE 110
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: EPA

REV: 7/10/12
ID1: OHD005419171
ID2:
STATUS: CA
PHONE:

VIOLATION NUMBER:	6	**RESPONSIBLE:**	S - STATE
DETERMINED:	03/29/2003	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	03/09/2003
TYPE:	GENERATORS - GENERAL		
VIOLATION NUMBER:	7	**RESPONSIBLE:**	S - STATE
DETERMINED:	10/15/2010	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	10/29/2010
TYPE:	GENERATORS - RECORDS/REPORTING		
VIOLATION NUMBER:	8	**RESPONSIBLE:**	S - STATE
DETERMINED:	10/15/2010	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	10/29/2010
TYPE:	GENERATORS - RECORDS/REPORTING		
VIOLATION NUMBER:	9	**RESPONSIBLE:**	S - STATE
DETERMINED:	10/15/2010	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	10/29/2010
TYPE:	GENERATORS - RECORDS/REPORTING		
VIOLATION NUMBER:	10	**RESPONSIBLE:**	S - STATE
DETERMINED:	10/15/2010	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	10/29/2010
TYPE:	GENERATORS - RECORDS/REPORTING		
VIOLATION NUMBER:	11	**RESPONSIBLE:**	S - STATE
DETERMINED:	10/15/2010	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	10/29/2010
TYPE:	GENERATORS - RECORDS/REPORTING		
VIOLATION NUMBER:	12	**RESPONSIBLE:**	S - STATE
DETERMINED:	10/15/2010	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	10/29/2010
TYPE:	GENERATORS - RECORDS/REPORTING		
VIOLATION NUMBER:	13	**RESPONSIBLE:**	S - STATE
DETERMINED:	10/15/2010	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	10/29/2010
TYPE:	GENERATORS - RECORDS/REPORTING		
VIOLATION NUMBER:	14	**RESPONSIBLE:**	S - STATE
DETERMINED:	10/15/2010	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	10/29/2010
TYPE:	GENERATORS - RECORDS/REPORTING		
VIOLATION NUMBER:	15	**RESPONSIBLE:**	S - STATE
DETERMINED:	10/15/2010	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	10/29/2010
TYPE:	GENERATORS - RECORDS/REPORTING		

CORRECTIVE ACTION INFORMATION

CA EVENT: 06/01/2006 CA002IL

- Continued on next page -

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

RCRACOR

SEARCH ID: 10 **DIST/DIR:** 0.17 SW **ELEVATION:** **MAP ID:** 3

NAME: CAMPBELL SOUP SUPPLY CO - SOUP PLANT
ADDRESS: 12 STATE ROUTE 110
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: EPA

REV: 7/10/12
ID1: OHD005419171
ID2:
STATUS: CA
PHONE:

CA EVENT: 09/03/2009 CA001

CA EVENT: 10/21/2010 CA550NR - REMEDY CONSTRUCTION - NO REMEDY CONSTRUCTED

CA EVENT: 10/19/2010 CA750YE - GROUNDWATER RELEASES CONTROLLED DETERMINATION - MIGRATION OF CONTAMINATED GW IS UNDER CONTROL

CA EVENT: 10/19/2010 CA725YE - CURRENT HUMAN EXPOSURES UNDER CONTROL - UNDER CONTROL

CA EVENT: 10/21/2010 CA070NO - DETERMINATION OF NEED FOR AN RFI - RFI IS NOT NECESSARY

CA EVENT: 10/21/2010 CA400 - CA400-REMEDY DECISION

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste
D002 - Corrosive waste
D009 - Mercury
D013 - Lindane (1,2,3,4,5,6-hexa-chlorocyclohexane, gamma isomer)
D014 - Methoxychlor (1,1,1-trichloro-2,2-bis <p-methoxyphenyl> ethane)
D022 - Chloroform
F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
U080 - Methane, dichloro- (OR) Methylene chloride

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

RCRACOR

SEARCH ID: 11 **DIST/DIR:** 0.17 SW **ELEVATION:** **MAP ID:** 3

NAME: CAMPBELL SOUP SUPPLY COMPANY
ADDRESS: P 152 CO RD
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: EPA

REV: 7/10/12
ID1: OHD987023678
ID2:
STATUS: CA
PHONE:

SITE INFORMATION

CONTACT INFORMATION: NATHAN L JOHNSON
P 152 CO RD 12
NAPOLEON OH 43545

PHONE: 4195921010 6691

OWNER NAME: CAMPBELL SOUP SUPPLY COMPANY
OWNER TYPE: P-PRIVATE
OPERATOR: NATHAN L. JOHNSON
OPERATOR_TYPE: P-PRIVATE
MAILING ADDRESS: P 152 CO RD 12
NAPOLEON,

UNIVERSE INFORMATION:

RECEIVED DATE: 07/22/2008

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO
SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD: -----
CLOSURE WORKLOAD: -----
POST CLOSURE WORKLOAD: -----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: -----
CORRECTIVE ACTION WORKLOAD: N - NO
GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS:
GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:	N-NO	**ENGINEERING CONTROL:**	N
HUMAN EXPOSURE:	N-NO	**GW CONTROLS:**	N- NO
LAND TYPE:	P-PRIVATE	**SHORT TERM GEN:**	N
TRANS FACILITY:	N	**REC WASTE FROM OFF SITE:**	N
IMPORTER ACTIVITY:	N - NO	**MIXED WASTE GEN:**	N - NO
TRANS ACTIVITY:	N - NO	**TSD ACTIVITY:**	N - NO
RECYCLER ACTIVITY:	N - NO	**ONSITE BURNER EXEMPT:**	N - NO
FURNACE EXEMPTION:	N - NO	**UNDER INJECT ACTIVITY:**	N - NO
REC WASTE FROM OFF SITE:	N - NO	**UNIV WASTE DEST FAC:**	N
USED OIL TRANS:	N - NO	**USED OIL PROCESSOR:**	N - NO
USED OIL REFINER:	N - NO	**USED OIL FUEL BURNER:**	N - NO
UO FUEL MARKETER TO BURNER:	N	**USED OIL SPEC MARKETER:**	N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

RCRACOR

SEARCH ID: 11 **DIST/DIR:** 0.17 SW **ELEVATION:** **MAP ID:** 3

NAME: CAMPBELL SOUP SUPPLY COMPANY
ADDRESS: P 152 CO RD
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: EPA

REV: 7/10/12
ID1: OHD987023678
ID2:
STATUS: CA
PHONE:

54138 - TESTING LABORATORIES

ENFORCEMENT INFORMATION:

AGENCY: STATE **DATE:** 94/26/1994
TYPE: WRITTEN INFORMAL

AGENCY: STATE **DATE:** 94/26/1994
TYPE: WRITTEN INFORMAL

AGENCY: STATE **DATE:** 94/29/1994
TYPE: WRITTEN INFORMAL

AGENCY: STATE **DATE:** 94/23/1994
TYPE: WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 1 **RESPONSIBLE:** S - STATE
DETERMINED: 94/05/1994 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:** 94/29/1994
TYPE: GENERATORS - PRE-TRANSPORT

VIOLATION NUMBER: 2 **RESPONSIBLE:** S - STATE
DETERMINED: 94/05/1994 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:** 94/12/1994
TYPE: TSD - CLOSURE/POST-CLOSURE

CORRECTIVE ACTION INFORMATION

CA EVENT: 06/01/2006 CA002IL

CA EVENT: 09/09/2009 CA011

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste
D035 - Methyl ethyl ketone
F002 - The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2, trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, before use, only the above spent non- halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

Environmental FirstSearch
Site Detail Report

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

SPILLS

SEARCH ID: 14 **DIST/DIR:** 0.25 NW **ELEVATION:** **MAP ID:** 4

NAME:
ADDRESS: COMMERCE and INTERCHANGE RD
NAPOLEON OH
HENRY
CONTACT:
SOURCE:

REV: 01/31/06
ID1: 2006-96
ID2: 96.00
STATUS:
PHONE:

SITE INFORMATION

SPILL YEAR: 2006
SPILL NUMBER: 96
REPORT DATE: 1/8/2006 00:00:00
PRODUCT: ORPHAN DRUM
REPORTER NAME: TRACEY BUSCH
SUSPECTED SPILLER: UNKNOWN

SPILLS

SEARCH ID: 16 **DIST/DIR:** 0.25 NW **ELEVATION:** **MAP ID:** 4

NAME:
ADDRESS: COMMERCE RD and INTERCHANGE RD
NAPOLEON OH
HENRY
CONTACT:
SOURCE: OH EPA

REV: 05/09/06
ID1: OHSP-0506-96
ID2: 96.00
STATUS:
PHONE:

SITE INFORMATION

SPILL YEAR: 2006
SPILL NUMBER: 96
DATE REPORTED: 1/8/2006 00:00:00
PRODUCT: ORPHAN DRUM
REPORTED BY: TRACEY BUSCH
SUSPECTED SPILLER: UNKNOWN

Environmental FirstSearch
Site Detail Report

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

FIMAP

SEARCH ID: 8 **DIST/DIR:** 0.56 SW **ELEVATION:** **MAP ID:** 5

NAME: FIRE INSURANCE MAP
ADDRESS:
NAPOLEON OH
CONTACT:
SOURCE: PUBLIC LIBRARY

REV: 7/27/11
ID1: OH-FS-306
ID2:
STATUS: SANBORN
PHONE:

SITE INFORMATION

SOURCE COLLECTION: SANBORN

NUMBER OF MAPS: UNDETERMINED

POSSIBLE MAP LOCATION

NAPOLEON

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

STATE

SEARCH ID: 12 **DIST/DIR:** 0.56 NE **ELEVATION:** **MAP ID:** 6

NAME: UNIVERSAL COOPERATIVES INC, ALLIANCE
ADDRESS: 1253 INDUSTRIAL CR 12 DR
NAPOLEON OH 43545
HENRY
CONTACT:
SOURCE: OH EPA

REV: 10/22/10
ID1: DERR-335000848
ID2: 335000848
STATUS: DERR DATABASE
PHONE:

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 335000848 **CERCLIS ID:** OHD000647131
ALIAS: **PROGRAM:**

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE
CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS
COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

Environmental FirstSearch
Site Detail Report

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

FIMAP

SEARCH ID: 7 **DIST/DIR:** 0.81 SW **ELEVATION:** **MAP ID:** 7

NAME: FIRE INSURANCE MAP
ADDRESS:
NAPOLEON OH

CONTACT:
SOURCE: PUBLIC LIBRARY

REV: 7/27/11
ID1: OH-FS-301
ID2:
STATUS: SANBORN
PHONE:

SITE INFORMATION

SOURCE COLLECTION: SANBORN

NUMBER OF MAPS: UNDETERMINED

POSSIBLE MAP LOCATION

NAPOLEON

Environmental FirstSearch Descriptions

NPL: ***EPA*** NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.
A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.
FINAL - Currently on the Final NPL
PROPOSED - Proposed for NPL

NPL DELISTED: ***EPA*** NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.
DELISTED - Deleted from the Final NPL

CERCLIS: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.
PART OF NPL- Site is part of NPL site
DELETED - Deleted from the Final NPL
FINAL - Currently on the Final NPL
NOT PROPOSED - Not on the NPL
NOT VALID - Not Valid Site or Incident
PROPOSED - Proposed for NPL
REMOVED - Removed from Proposed NPL
SCAN PLAN - Pre-proposal Site
WITHDRAWN - Withdrawn

NFRAP: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.
NFRAP – No Further Remedial Action Plan
P - Site is part of NPL site
D - Deleted from the Final NPL
F - Currently on the Final NPL
N - Not on the NPL
O - Not Valid Site or Incident
P - Proposed for NPL
R - Removed from Proposed NPL
S - Pre-proposal Site
W – Withdrawn

RCRA COR ACT: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: ***EPA/MA DEP/CT DEP*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that generate or transport hazardous waste or meet other RCRA requirements.
LGN - Large Quantity Generators
SGN - Small Quantity Generators
VGN – Conditionally Exempt Generator.
Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.
CONNECTICUT HAZARDOUS WASTE MANIFEST – Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records.
MASSACHUSETTES HAZARDOUS WASTE GENERATOR – database of generators that are regulated under the MA DEP.
VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil.
SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil.
LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

ERNS: ***EPA/NRC*** EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: ***DOI/BIA*** INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.
BUREAU OF INDIAN AFFIARS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

State/Tribal Sites: ***OH EPA*** DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE(DERR) - database of basic information regarding name and status in the Voluntary Action Program, for potentially contaminated sites that are maintained by district offices in Ohio.

State Spills 90: ***OH EPA*** SPILL LOCATIONS - database of spills reported to the Ohio Environmental Protection Agency since 1990.

State/Tribal SWL: ***OH EPA*** WASTE FACILITIES - The Database of all Compost and Demolition Debris, Industrial and Residual Waste, Municipal Solid Waste Landfills and Municipal and Solid Waste Transfer Facilities are maintained by the Division of Solid and Infectious Waste Management.

State/Tribal LUST: ***OH FMO*** FACILITIES WITH ACTIVE RELEASES FROM REGULATED TANKS - database of leaking underground storage tanks reported to the Ohio Fire Marshal's office.

State/Tribal UST/AST: ***OH FMO*** LIST OF ACTIVE REGISTERED FACILITIES - database of all registered underground storage tanks.

State/Tribal VCP: ***OH EPA*** BROWNFIELD INVENTORY (Subset)- database of sites that have voluntary submitted information to the inventory as part of the Site Assessment and Brownfield Revitalization Program (SABR) and over seen by the Voluntary Action Program .

State/Tribal Brownfields: ***OH EPA*** BROWNFIELD INVENTORY - database of sites that have voluntary submitted information to the inventory as part of the Site Assessment and Brownfield Revitalization Program (SABR).

RADON: ***NTIS*** NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

State Other: ***US DOJ*** NATIONAL CLANDESTINE LABORATORY REGISTER - Database of addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the U.S. Department of Justice ("the Department"), and the Department has not verified the entry and does not guarantee its accuracy. All sites that are included in this data set will have an id that starts with NCLR.

State Other: ***OH EPA*** WASTE FACILITIES SUBSET - database of all Compost Facilities, Infectious Waste, Scrap Tire Facilities, and Transfer Stations. The database also includes a historical Master Site Listing of all Hazardous Waste Inventory Sites.

FI Map Coverage: ***PROPRIETARY*** FIRE INSURANCE MAP AVAILABILITY - Database of historical fire insurance map availability.

Environmental FirstSearch Database Sources

NPL: ***EPA*** Environmental Protection Agency

Updated quarterly

NPL DELISTED: ***EPA*** Environmental Protection Agency

Updated quarterly

CERCLIS: ***EPA*** Environmental Protection Agency

Updated quarterly

NFRAP: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA TSD: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA GEN: ***EPA/MA DEP/CT DEP*** Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection

Updated quarterly

ERNS: ***EPA/NRC*** Environmental Protection Agency

Updated annually

Tribal Lands: ***DOI/BIA*** United States Department of the Interior

Updated annually

State/Tribal Sites: ***OH EPA*** Ohio Environmental Protection Agency.

Updated annually

State Spills 90: ***OH EPA*** Ohio Environmental Protection Agency.

Updated quarterly

State/Tribal SWL: ***OH EPA*** Ohio Environmental Protection Agency.

Updated annually

State/Tribal LUST: ***OH FMO*** Ohio Fire Marshall Office.

Updated quarterly

State/Tribal UST/AST: ***OH FMO*** Ohio Fire Marshall Office.

Updated quarterly

State/Tribal VCP: ***OH EPA*** Ohio Environmental Protection Agency

Updated quarterly

State/Tribal Brownfields: ***OH EPA*** Ohio Environmental Protection Agency

Updated quarterly

RADON: ***NTIS*** Environmental Protection Agency, National Technical Information Services

Updated periodically

State Other: ***US DOJ*** U.S. Department of Justice

Updated when available

State Other: ***OH EPA*** Ohio Environmental Protection Agency.

Updated annually

FI Map Coverage: ***PROPRIETARY*** Library of Congress
Catalogue of Maps Published by Sanborn Mapping and Geographic Information Service in February 1988® ProQuest
Other internally produced datasets

Updated quarterly

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: INDUSTRIAL DR
NAPOLEON OH 43545

JOB: H2530001

Street Name	Dist/Dir	Street Name	Dist/Dir
Canal Rd	0.00 --		
County Road 12	0.01 -E		
Independence Dr	0.21 NW		
Industrial Dr	0.00 --		
Interchange Dr	0.11 NW		
Lamar Ln	0.10 NE		
State Route 110	0.00 --		
State Route 424	0.00 --		

HISTORICAL FIRE INSURANCE MAPS

NO MAPS AVAILABLE

08-23-12
H2530001
INDUSTRIAL DR
NAPOLEON OH 43545

A search of FirstSearch Technology Corporation's proprietary database of historical fire insurance map availability confirmed that there are NO MAPS AVAILABLE for the Subject Location as shown above.

FirstSearch Technology Corporation's proprietary database of historical fire insurance map availability represents abstracted information from the Sanborn® Map Company obtained through online access to the U.S. Library of Congress via local libraries.

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Environmental FirstSearch

.25 Mile Radius from Area

AREA: Multiple Databases

INDUSTRIAL DR, NAPOLEON OH 43545



Source: 2005 U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

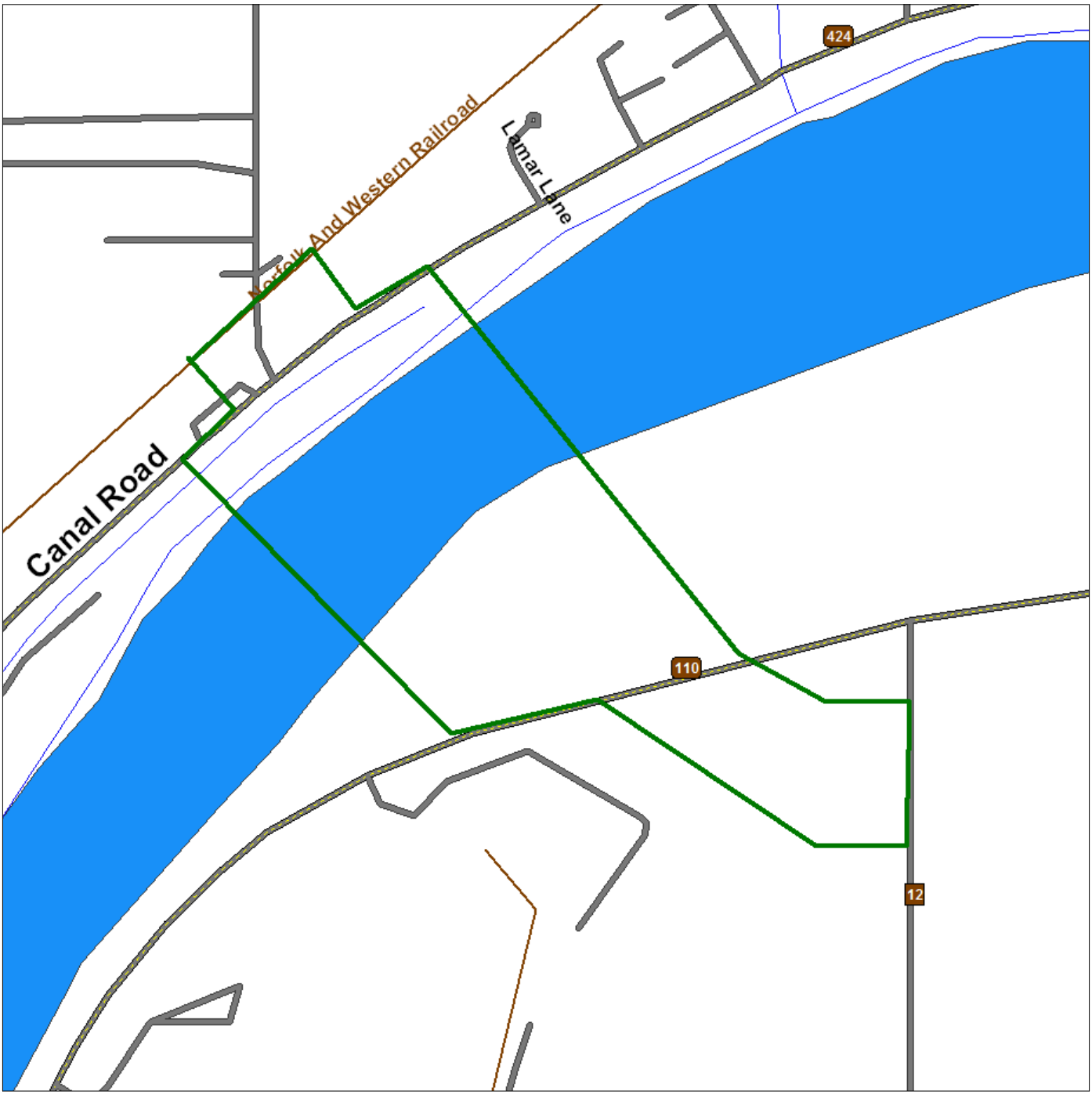
Railroads .....

Environmental FirstSearch

.12 Mile Radius from Area

AREA: FIMAP

INDUSTRIAL DR, NAPOLEON OH 43545



Source: 2005 U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

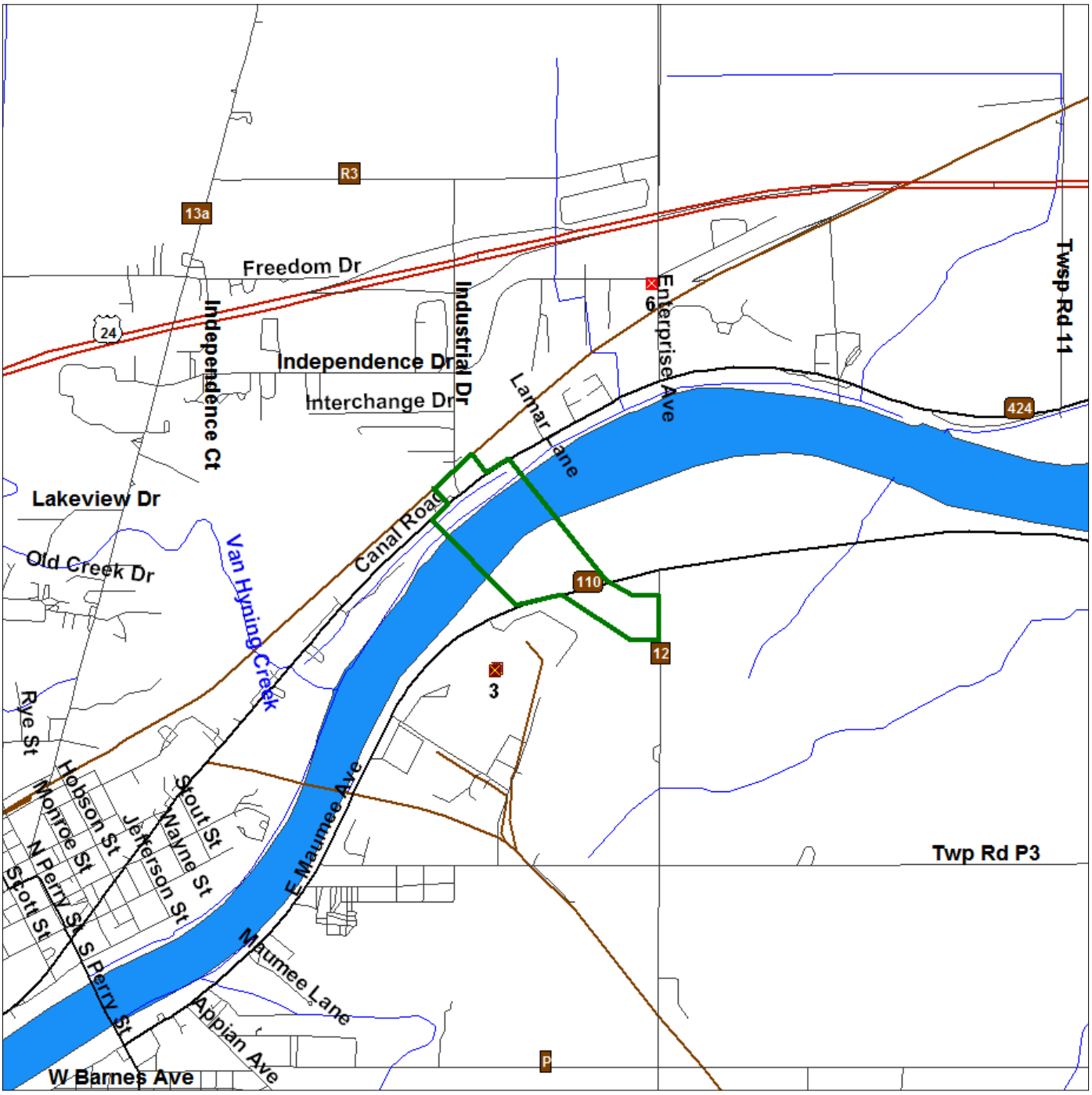
Railroads .....

Environmental FirstSearch

1 Mile Radius from Area

ASTM Map: NPL, RCRACOR, STATE Sites

INDUSTRIAL DR, NAPOLEON OH 43545



Source: 2005 U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

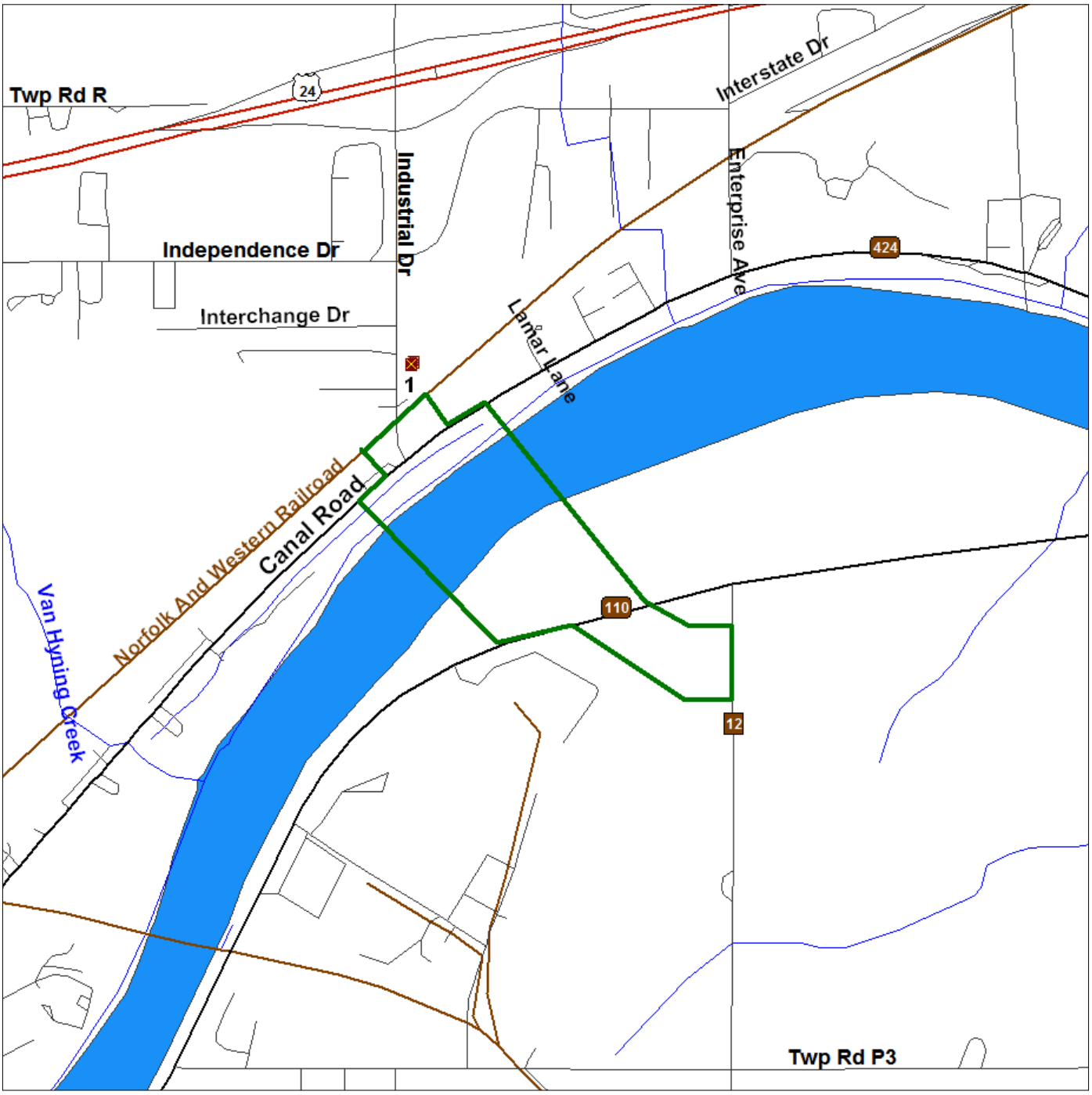
Railroads .....

Environmental FirstSearch

.5 Mile Radius from Area

ASTM Map: CERCLIS, RCRATSD, LUST, SWL

INDUSTRIAL DR, NAPOLEON OH 43545



Source: 2005 U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Railroads .....

Environmental FirstSearch

.25 Mile Radius from Area

ASTM Map: RCRAGEN, ERNS, UST, FED IC/EC, METH LABS

INDUSTRIAL DR, NAPOLEON OH 43545



Source: 2005 U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Railroads .....

Environmental FirstSearch

.25 Mile Radius from Area

Non-ASTM Map: Spills 90

INDUSTRIAL DR, NAPOLEON OH 43545



Source: 2005 U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

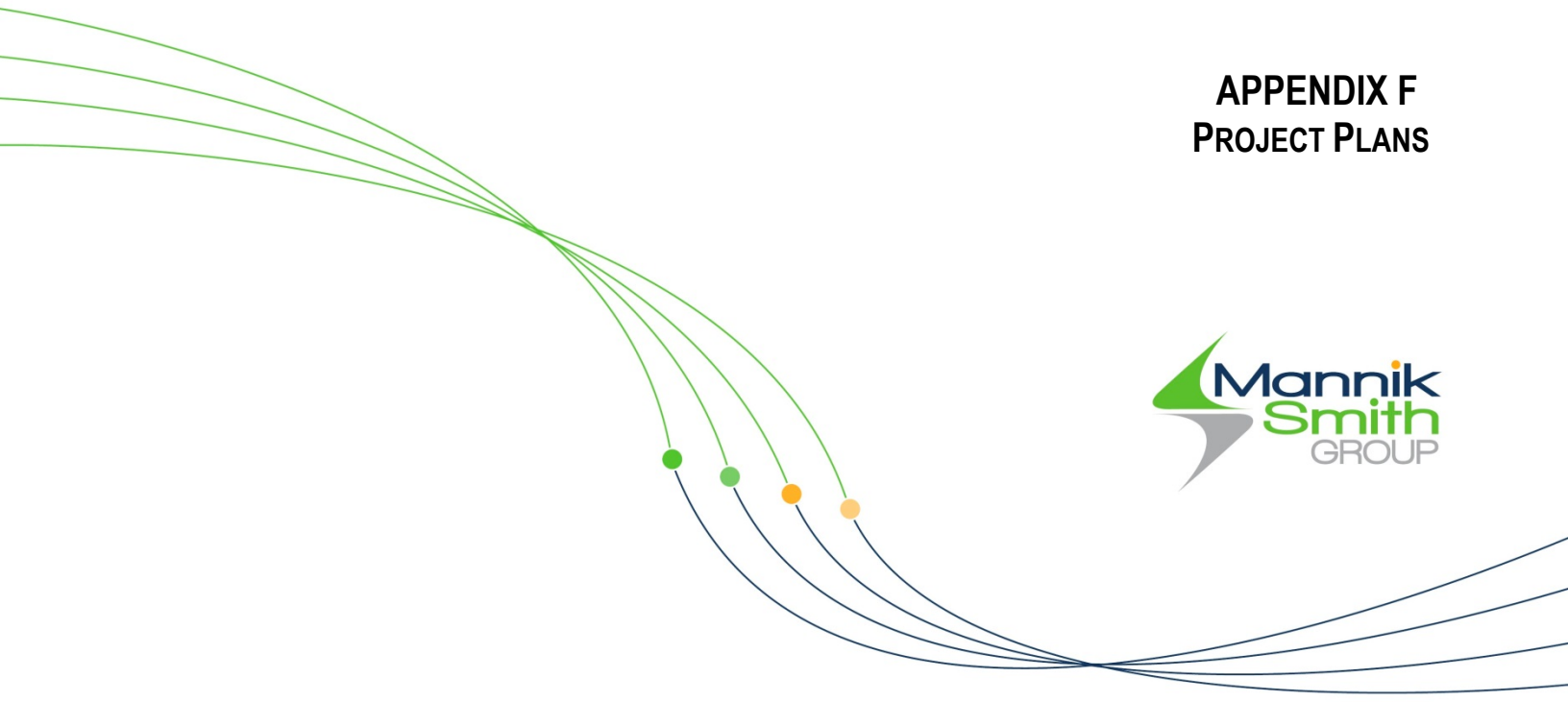
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

National Historic Sites and Landmark Sites .....

Railroads .....

APPENDIX F
PROJECT PLANS



Date Saved: 3/18/2013 4:08:32 PM

Shaded area to be updated with secondary research for environmental screenings for updating the Red Flag Map and Feasibility Study to submit to ODOT. Both of these Build Alternatives and the No Build will be compared in a matrix.

CORPORATION LIMITS

CO. RD. 14B

CO. RD. 13A

CO. RD. 12

TWP. RD. 10

OAKWOOD AVE.

INDUSTRIAL

INDUSTRIAL & COMMERCIAL

TWP. RD. R3

INDUSTRIAL

INDUSTRIAL

INDEPENDENCE

INDUSTRIAL

PARK

HOSPITAL

PARK

Buckeye Trail

ALT. 2

ALT. 3

INDUSTRIAL

MAUMEE - WESTERN R.R.

ABANDONED RAILROAD BRIDGE

ALT. 4

CAMPBELLS

STUDY AREA

WOODLAWN AVE.

WESTMORELAND AVE.

GLENWOOD AVE.

HIGH SCHOOL

NAPOLEON

WATER TREATMENT FACILITY

FIRE DEPT.

MAUMEE RIVER

WASTE WATER TREATMENT FACILITY

TWP. RD. P3

FUTURE INDUSTRIAL & COMMERCIAL

BALES RD.

CO. RD. P

PARK

PARK

CO. RD. Z

PARK

FAIR GROUNDS

CO. RD. P

Buckeye Trail

ALT. 1

APPIAN AVE. - CO. RD. 11C

CO. RD. 12

Document Path: W:\Projects\Projects F-J\H2530001\22984\roadway\engapps\GIS\H2530001_RedFlag.mxd

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

Updated Red Flag Summary
April 2013

Notes

The photography, dated April 2006, is provided by OGRIP as part of the Ohio Statewide Imagery Program.

2,000 1,000 0 2,000 Feet

APPENDIX G
PHOTOGRAPHIC LOGS



Photo 1: Site 1, from southwest.



Photo 2: Site 2, from east.



Photo 3: Site 3, from west.



Photo 4: Site 4 (left of photo) and Site 5 (right of photo) from southwest.



Photo 5: Fill on Site 6, from north.



Photo 6: Fill on Site 8, from south.



Photo 7: Site 9 (island) from northwest.



Photo 8: The Campbells soup plant, from east.