

Pyramid Environmental & Engineering, P.C. Project # 2014-008
Preliminary Site Assessment (PSA) – Parcel 025, Tally Investments, LLC

PRELIMINARY SITE ASSESSMENT
PARCEL 025, TALLY INVESTMENTS, LLC
460 W. ROWAN ST.
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA
STATE PROJECT: B-4490
WBS ELEMENT: 33727.1.1
MARCH 14, 2014

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**PRELIMINARY SITE ASSESSMENT
PARCEL 025, TALLY INVESTMENTS, LLC
460 W. ROWAN ST.
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA**

EXECUTIVE SUMMARY OF RESULTS

Pyramid Environmental & Engineering P.C. (Pyramid) has prepared this Preliminary Site Assessment (PSA) report documenting background information, field activities, assessment activities, findings, conclusions, and recommendations for Parcel 025, Tally Investments, LLC. The purpose of this assessment was to determine the presence or absence of underground storage tanks (USTs) and impacted soils at the subject property within the proposed right-of-way (ROW) and/or easement and edge of pavement (State Project B-4490). The PSA was conducted with particular attention to the areas to be cut as indicated by slope stake lines and cross sections or to be excavated for the installation of drainage features. This preliminary site assessment was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Pyramid's December 20, 2013, technical proposal.

The following statements summarize the results of the PSA:

- **Site History:** A review of the North Carolina Department of Environment and Natural Resources (DENR) registered UST database and incident database indicated no environmental incidents were on file for the Tally Investments, LLC property (Parcel 025). On January 23, 2014, Pyramid emailed the Cumberland County B-4490 parcel addresses to Mr. James Brown, the Fayetteville Regional Incident Manager for the DENR UST Section, with a request to investigate any environmental incidents associated with the parcels. On January 24, 2014, Mr. Brown responded to the email and stated that site address 460 W. Rowan St. (Parcel 025) does not have any environmental incidents in the DENR database.

On January 20, 2014, Pyramid Project Manager Eric Cross performed a site visit at the property. The property was an active auto repair and body shop, and the buildings on the site left very little open space to perform the PSA. Mr. Cross interviewed the tenant operating the auto repair shop, Mr. Eric Cruz. Mr. Cruz indicated that he had been operating the shop for approximately 4 years, and that to his knowledge the property had operated as an auto repair shop since the 1960's. He indicated that the northern of the two structured has been added approximately 15 years prior to our investigation. He was not aware of any USTs at the property.

- **Geophysical Survey:** The geophysical investigation did not record evidence of any metallic USTs at the property. However, it should be noted that only a small portion of the property was surveyed due to the buildings and parked vehicles on-site. Additionally, the extensive metal across the site (buildings, vehicles, and fences) prevented EM61 data from being collected.
- **Limited Soil Assessment:** It should be noted that, congruent to the limited geophysical survey, the majority of the property was inaccessible due to the buildings which occupied most of the parcel. Boring locations were chosen based primarily on access.

A total of three borings were performed across the property. The QED results did not detect TPH-GRO or TPH-DRO concentrations above 10 milligrams per kilogram (mg/kg) in any of the soil samples analyzed.

One sample from each boring was sent to the laboratory for analysis of soils using EPA Methods 8260/8270 for volatile and semi-volatile organic compounds based on the site usage history. The laboratory results did not detect any volatile or semi-volatile organic compounds above detection limits.

- **Limited Groundwater Assessment:** Soil boring 25-3 was converted into a 1-inch diameter temporary monitoring well to a total depth of 14 feet below land surface (BLS). The depth-to-groundwater was measured at 9.9 feet BLS. The laboratory analysis did not detect concentrations of any compounds above detection limits.

Review of the NCDOT engineering plans indicates that the NCDOT may encounter groundwater at the property during construction activities. However, no evidence of contamination was observed in the water samples collected during this investigation.

- **Impacted Soils:** No impacted soils were observed at the property therefore, no calculations or recommendations are required for this parcel. It should be noted that, if impacted soil is encountered during road construction outside the area analyzed by this investigation, the impacted soil should be managed according to NC DENR Division of Waste Management (DWM) UST Section Guidelines and disposed of at a permitted facility.

1.0 Introduction

Pyramid Environmental & Engineering P.C. (Pyramid) has prepared this Preliminary Site Assessment (PSA) report documenting background information, field activities, assessment activities, findings, conclusions, and recommendations for Parcel 025, Tally Investments, LLC. The Tally Investments, LLC property is currently an automobile repair facility located approximately at 460 W. Rowan St., Fayetteville, NC. This preliminary site assessment was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with Pyramid's December 20, 2013, technical proposal.

The purpose of this assessment was to determine the presence or absence of underground storage tanks (USTs) and the potential for impacted soils at the subject properties across the entire site in anticipation of a total take (State Project B-4490). The location of the subject site is shown on **Figure 1**.

1.1 Background Information

Based on the NCDOT's December 13, 2013, *Request for Technical and Cost Proposal*, the PSA was conducted within all accessible areas of the property in anticipation of a total take, with emphasis on the areas to be cut as indicated by slope stake lines and cross sections or to be excavated for the installation of drainage features and/or other utilities, in accordance with the CADD files provided to Pyramid by the NCDOT. The PSA included the following:

- Research the properties for past uses and possible releases.
- Conduct a preliminary geophysical site assessment and limited soil assessment in all accessible areas of the property in anticipation of a total take with emphasis on the areas to be cut as indicated by slope stake lines and cross sections or to be excavated for the installation of drainage features and/or other utilities.
- Should groundwater be encountered at a depth that might impact the NCDOT construction activities, report the depth to groundwater for that site and attempt to obtain one groundwater sample for laboratory analysis by installing a temporary monitoring well.

1.2 Project Information

Prior to field activities, a Health and Safety Plan was prepared. Prior to drilling activities, the public underground utilities were located and marked by the North Carolina One-Call Service. A private utility locator, Northstate Utility Locating Incorporated of Colfax, North Carolina was used to mark the on-site private, buried utilities.

2.0 Site History

The NCDOT description of the parcel in the RFP provided to Pyramid on December 13, 2013, provided the following background information related to the site:

“Currently this facility operates as an automobile repair and body shop. The site is located approximately 100 ft. east of the intersection of Hillsboro St. and W. Rowan St. No known NCDENR UST Section Facility Identification Numbers or Groundwater Incidents Identification Numbers associated with this property. No evidence of USTs was observed during a site visit on April 30, 2009. Investigate the entire parcel as a total take is anticipated.”

Pyramid completed a records review of the parcel, interviewed DENR personnel, interviewed property tenants, and reviewed aerial photographs to assess past uses of the property. Pyramid reviewed historical aerial photographs dating back to 1960 available from the Cumberland County Soil and Water Conservation office in Fayetteville and on Google Earth for past uses. The 1960, 1966, 1972, 1993, 2003, 2009, 2010, and 2011 aerial photographs are included in **Appendix A**. Historical information reviewed as part of the PSA indicated that building on the property was constructed sometime between 1960 and 1966. The first aerial photograph to clearly show the building was the 1966 aerial. The 1960 aerial depicted the site to be largely covered in trees. The adjacent property to the east contained a similar-sized structure that was visible on the 1960, 1966, and 1972 aerials. This building was then demolished sometime between 1972 and 1993.

City directories dated 1937, 1951, 1957, 1963, 1968, 1973, 1980, 1985, 1990, 1995, to 2000 were reviewed at the Cumberland County Public Library in Fayetteville, North Carolina. The table below includes a list of the building or subject property occupants from 1937 to 2000 based on the city directory review.

Year	Occupant
1937	No Listing
1951	Reinecke Tarlton Inc. General Contractor
1957	Newsome Tarlton Inc. Building Contractors
1963	Tarlton Construction Company/Kish Radio & TV Repair
1968	Tarlton Construction Company/Cape Fear Realty Brokerage Company
1973	Cape Fear Realty Brokerage Company
1980	Vacant
1985	Vacant
1990	Custom Marble Kitchen & Bath, Inc.
1995	Vacant
2000	J&C Auto Sales

The above listings indicate that the property has operated as a variety of different commercial entities in the past, including general contractors, real estate, TV repair, a kitchen and bath store, and more recently an auto sales company.

On January 23, 2014, Pyramid emailed the Cumberland County B-4490 parcel addresses to Mr. James Brown, the Fayetteville Regional Incident Manager for the DENR UST Section, with a request to investigate any environmental incidents associated with the parcels. On January 24, 2014, Mr. Brown responded to the email and stated that site address 460 W. Rowan St. (Parcel 025) does not have any environmental incidents in the DENR database.

On January 20, 2014, Pyramid Project Manager Eric Cross performed a site visit at the property. The property was an active auto repair and body shop, and the buildings on the site left very little open space to perform the PSA. Mr. Cross interviewed the tenant operating the auto repair shop, Mr. Eric Cruz. Mr. Cruz indicated that he had been operating the shop for approximately 4 years, and that to his knowledge the property had operated as an auto repair shop since the 1960's. He indicated that the northern of the two structures has been added approximately 15 years prior to our investigation. He was not aware of any USTs at his property.

3.0 Geophysical Investigation

Pyramid performed a ground penetrating radar (GPR) survey across the accessible portions of the Parcel. An EM survey was not performed due to the very limited access and abundant metal interference (buildings, vehicles, fences). All accessible areas of the parcel were surveyed by the GPR, and no large structures were identified. Isolated zones of possible debris and suspected utilities were identified by the GPR.

The geophysical investigation did not record evidence of any metallic USTs at the property. However, it should be noted that only a small portion of the property was surveyed due to the buildings and parked vehicles on-site. Additionally, the extensive metal across the site (buildings, vehicles, and fences) prevented EM61 data from being collected.

The full details of the geophysical investigation are included in the Geophysical Investigation Report as **Appendix B**.

4.0 Soil Sampling Activities & Results

4.1 Soil Assessment Field Activities

On February 17, 2014, Pyramid mobilized to the site and drilled soil borings, installed one temporary monitoring well, and collected some of the proposed soil samples for the PSA. The soil borings and temporary well (TW) were completed using a track mounted Geoprobe® Direct-Push rig. Three (3) soil borings (25-1, 25-2, and 25-3) were advanced on the subject property. The selected locations were chosen to avoid public utilities along the adjacent roads and private utilities associated with the business while remaining in the proposed right of way and/or easement. The soil borings were installed adjacent to proposed drainage piping, as indicated by the NCDOT engineering plans, or within the proposed ROW and/or easement to obtain additional information. The locations of the borings are shown on **Figure 2**.

Soil samples were continuously collected in four-foot long disposable sleeves from each boring for geologic description, and visual examination for signs of contamination. Soil recovered from each sleeve was screened in the field using a Photo-Ionization Detector (PID) approximately every 2 feet depending on the soil recovery of each sleeve. In general, the soil sample with the highest PID reading was selected from each boring for laboratory analysis. If field screening detected an elevated reading, then additional soil samples from each boring were selectively analyzed with the QED UVF HC-1 Analyzer. The soil boring logs with the soil descriptions, visual examination, and PID screening results are included in **Appendix C**. The PID field screening results are summarized in **Table 1**. To prevent cross contamination, new disposable nitrile gloves were worn by the sampling technician during the sampling activities, and were changed between samples. No odors were detected in the borings during the field screening.

The soil samples selected for Total Petroleum Hydrocarbon (TPH) analyses were analyzed utilizing the QED UVF HC-1 Analyzer system from QROS-US. The NCDOT has indicated that this instrument is an acceptable method to provide total petroleum hydrocarbon (TPH) results for soil analysis for the PSA projects. Pyramid's QED-certified technician performed the soil analyses. The soil samples selected for analysis using the QED Analyzer were analyzed for TPH as diesel range organics (DRO) and TPH as gasoline range organics (GRO). The soil samples selected for analysis using the QED were preserved in the field with methanol and were analyzed at the end of each day using the QED.

In addition to the QED analysis, select samples were collected for more comprehensive laboratory analysis using EPA Methods 8260 and 8270 for volatile and semi-volatile organic compounds (VOCs and SVOCs). These additional analyses were performed based on the site history of the property, which suggested that other potential contaminants such as solvents from the auto repair facility may be present within the soils. In general, soils that exhibited the highest PID readings and were above the water

table were selected for the additional laboratory analyses. Specifically, samples 25-1(2-4), 25-2(4-6), and 25-3(4-6) were placed in laboratory prepared containers and shipped to Pace Analytical in Huntersville, NC for analysis of volatile and semi-volatile organic compounds.

4.2 Soil Sample Analytical Results

QED Results

The DENR action levels for both TPH-GRO and TPH-DRO are 10 mg/kg. The QED results did not detect TPH-GRO or TPH-DRO concentrations above 10 mg/kg in any of the soil samples analyzed. The soil sample QED results are summarized in **Table 2**. A copy of the QED analysis report is included in **Appendix D**.

Laboratory Analysis for VOCs and SVOCs

One sample from each boring [25-1(2-4), 25-2(4-6), and 25-3(4-6)] was sent to the laboratory for analysis of soils using EPA Methods 8260/8270 for volatile and semi-volatile organic compounds based on the site usage history. The laboratory results did not detect any volatile or semi-volatile organic compounds above detection limits. The soil sample VOC/SVOC laboratory results are summarized in **Table 3**. A copy of the laboratory report and chain-of-custody is included in **Appendix E**.

4.3 Temporary Monitoring Well Installation

On February 17, 2014, Pyramid converted soil boring 25-3 into a 1-inch diameter temporary monitoring well (TW). Soil boring 25-3(TW) was completed to a total depth of 14 feet below land surface (BLS). The temporary well was constructed with 4 feet of 1-inch diameter of schedule 80 PVC casing and 10 feet of 1-inch diameter of schedule 80 PVC slotted screen. The temporary well was set in the boring with 10 feet of slotted screen at the bottom of the well.

On February 17, 2014, the temporary monitoring well 25-3(TW) was gauged using a properly decontaminated electric water level probe. The depth-to-groundwater was measured at 9.9 feet BLS. The temporary monitoring well was sampled using a new 0.5-inch diameter disposable bailer. Upon completion of the gauging and sampling, the temporary monitoring well was properly abandoned by the drillers by removing the casing, and filling the borehole with bentonite chips and portland cement.

4.4 Groundwater Analytical Results

The groundwater sample 25-3(TW) was placed in laboratory prepared containers for analysis of volatile organic compounds (VOCs) using EPA Method 6200B and semi-volatile organic compounds (SVOCs) using EPA Method 625. The samples were shipped to Pace Analytical in Huntersville, NC. The laboratory analysis did not detect concentrations of any compounds above laboratory detection limits. The groundwater results for sample 25-3(TW) are summarized in **Table 4**. A copy of the laboratory report and chain-of-custody is included in **Appendix E**.

5.0 Conclusions and Recommendations

As requested by NCDOT, Pyramid has completed a PSA at the Tally Investments, LLC property located 460 W. Rowan St., Fayetteville, NC (Parcel 025). The following is a summary of the assessment activities and results. Personnel logs for all field work are included in **Appendix F**.

5.1 Geophysical Investigation

The geophysical investigation provided no evidence of metallic USTs within the existing and proposed ROW and/or easement. It should be noted that an EM survey was not performed due to access limitations and significant metal interference. The GPR survey was limited to accessible areas.

5.2 Limited Soil Assessment

It should be noted that, congruent to the limited geophysical survey, the majority of the property was inaccessible due to the buildings which occupied most of the parcel. Boring locations were chosen based primarily on access.

The DENR action levels for both TPH-GRO and TPH-DRO are 10 mg/kg. The QED results did not detect TPH-GRO or TPH-DRO concentrations above 10 mg/kg in any of the soil samples analyzed.

One sample from each boring was sent to the laboratory for analysis of soils using EPA Methods 8260/8270 for volatile and semi-volatile organic compounds based on the site usage history. The laboratory results did not detect any volatile or semi-volatile organic compounds above detection limits.

5.3 Limited Groundwater Assessment

Soil boring 25-3 was converted into a 1-inch diameter temporary monitoring well to a total depth of 14 feet BLS. The depth-to-groundwater was measured at 9.9 feet BLS. The laboratory analysis did not detect concentrations of any compounds above detection limits.

Review of the NCDOT engineering plans indicates that the NCDOT may encounter groundwater at the property during construction activities. However, no evidence of contamination was observed in the water samples collected during this investigation.

5.4 Recommendations

No impacted soils were observed at the property therefore, no calculations or recommendations are required for this parcel. It should be noted that, if impacted soil is encountered during road construction outside the area analyzed by this investigation, the

impacted soil should be managed according to NC DENR Division of Waste Management (DWM) UST Section Guidelines and disposed of at a permitted facility.

6.0 Limitations

The results of this preliminary investigation are limited to the boring locations completed during this limited assessment and presented in this report. The laboratory results only reflect the current conditions at the locations sampled on the date this PSA was performed.

7.0 Closure

This report was prepared for, and is available solely for use by NCDOT and their designees. The contents thereof may not be used or relied upon by any other person without the express written consent and authorization of Pyramid Environmental & Engineering, P.C. (Pyramid). The observations, conclusions, and recommendations documented in this report are based on site conditions and information reviewed at the time of Pyramid's investigation. Pyramid appreciates the opportunity to provide this environmental service.

FIGURES

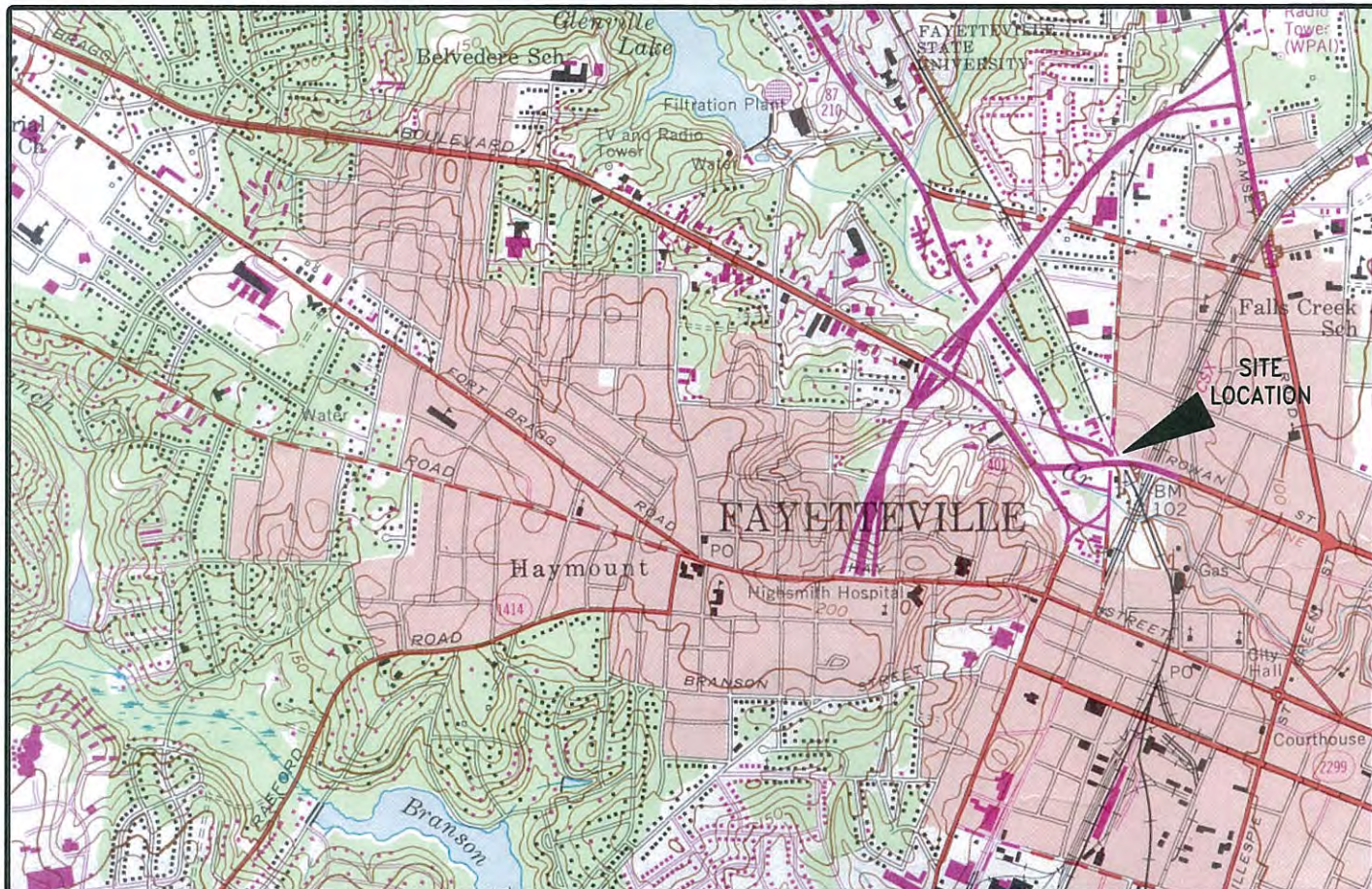
USGS TOPOGRAPHIC MAP

SITE:

460 W. ROWAN ST.

LOCATION:

FAYETTEVILLE, NORTH CAROLINA



USGS IDENTIFICATION

USGS 7.5

MINUTE MAP

ORIGINAL DATE:

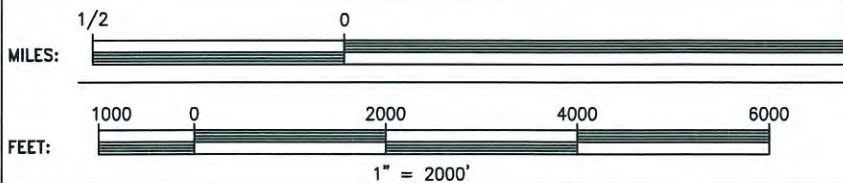
1957

PHOTOREVISION DATE:

1987

FAYETTEVILLE, N.C.

SCALES



	PRIMARY HIGHWAY, HARD SURFACE
	SECONDARY HIGHWAY, HARD SURFACE
	LIGHT-DUTY ROAD HARD OR IMPROVED SURFACE
	UNIMPROVED ROAD
	STATE ROAD
	U.S. ROUTE
	INTERSTATE ROUTE

NOTES: TOPOGRAPHICAL CONTOUR INTERVAL = 10 FEET
 PHOTOREVISIONS DENOTED IN PURPLE

MAGNETIC NORTH



COUNTY MAP OF:
NORTH CAROLINA



COUNTY: **CUMBERLAND**

APPROXIMATE SITE LOCATION



CLIENT: NC DOT B-4490

PROPERTY NAME: PARCEL 025, TALLY INVESTMENTS, LLC

CITY: FAYETTEVILLE

STATE: NORTH CAROLINA

TITLE: TOPOGRAPHIC MAP

SCALE:

1"=2000'

DATE:

2/5/14

DRAWING NAME:

USGSTOPO

DRAWN BY: KAM

CHECK BY: TDJ

JOB NO.: 2014-008

TYPE: PSA

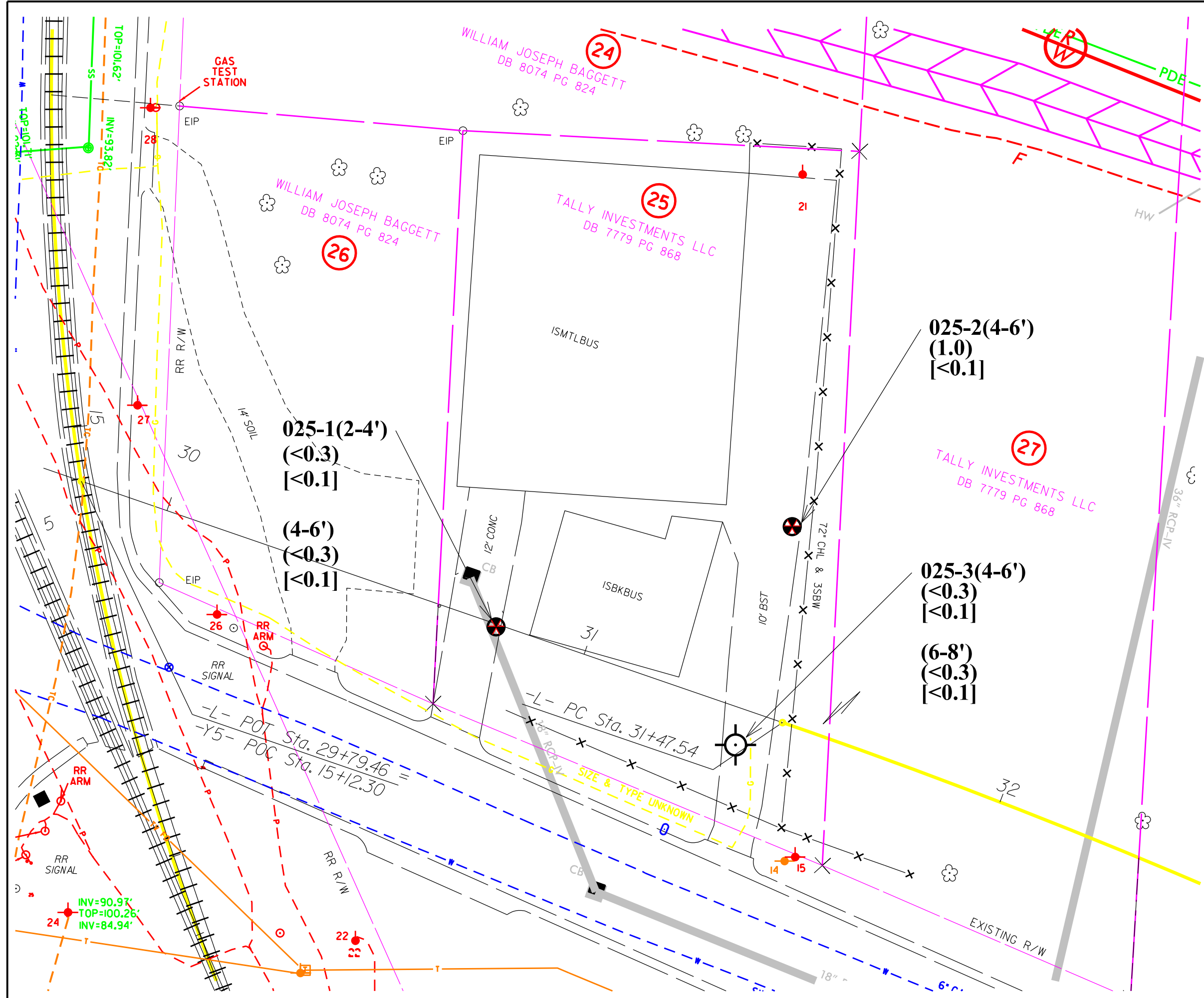
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1

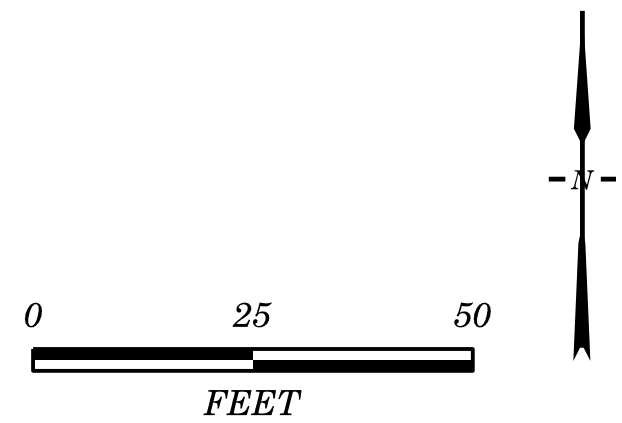
NOTES


TOPOGRAPHIC MAP USED IN THE GRAPHIC IS MAPPED, EDITED AND PUBLISHED BY THE UNITED STATES GEOLOGIC SURVEY, DEPARTMENT OF THE INTERIOR, RESTON VIRGINIA.

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS.



- LEGEND**
- PUE — PROPOSED UTILITY EASEMENT
 - - - EXISTING ROW
 - EXISTING PROPERTY BOUNDARY
 - PROPOSED ROW
 - E --- PROPOSED CONST. EASEMENT
 - DUE --- PROP. DRAINAGE UTIL. EASEMENT
 - - - PROPOSED SS CUT LINE
 - - - PROPOSED SS FILL LINE
 - - - PROPOSED SS TRANSITION LINE
 - PROPOSED DRAINAGE PIPING
 - PDE --- PROPOSED DRAINAGE EASEMENT
 - ⊗ SOIL SAMPLE BORING LOCATION
 - ⊙ BORING CONVERTED TO MW (LAB DATA IN TABLE 4 OF REPORT)
 - (<6.1) TPH-DRO concentration (mg/kg)
 - [<6.1] TPH-GRO concentration (mg/kg)
 - * DRO/GRO Analytical data collected by the method of QROS, QED Analyzer



TITLE	SOIL BORING LOCATIONS AND QED ANALYTICAL RESULTS	
PROJECT	NCDOT ROW PROJECT B-4490 (33727.1.1) TALLY INVESTMENTS LLC - PARCEL 025 FAYETTEVILLE, CUMBERLAND COUNTY, NC	
	 503 INDUSTRIAL AVENUE GREENSBORO, NC 27406 336.335.3174 (p) 336.691.0648 (f) License # C1251 Eng. / #C257 Geology	
DATE: 2-21-14	REVISION NO. 0	
PYRAMID PROJECT NO. 2014-008	FIGURE NO. 2	

TABLES

TABLE 1
Summary of Soil Field Screening Results
NCDOT Project B-4490
460 W. Rowan St. - Parcel 025
Fayetteville, Cumberland County, North Carolina

SOIL BORING	SAMPLE ID	DEPTH (feet bgs)	PID READINGS (PPM)
25-1	25-1(1-2)	1 to 2	20
	25-1(2-4)	2 to 4	90.0
	25-1(4-6)	4 to 6	70.0
	25-1(6-8)	6 to 8	55.0
25-2	25-2(0.5-2)	0.5 to 2	0.0
	25-2(2-4)	2 to 4	10.0
	25-2(4-6)	4 to 6	75.0
	25-2(6-8)	6 to 8	15.0
25-3	25-3(0.5-2)	0.5 to 2	25.0
	25-3(2-4)	2 to 4	25.0
	25-3(4-6)	4 to 6	95.0
	25-3(6-8)	6 to 8	85.0

bgs= below ground surface

PID= photo-ionization detector

PPM= parts-per-million

☐ = sampled for lab analysis &/or QROS-QED analysis

OVA= Organic Vapor Analyzer

TABLE 2
Summary of Soil Sample QED Analytical Results for GRO/DRO
 NCDOT State Project B-4490
 460 W. Rowan St. - Parcel 025
 Fayetteville, Cumberland County, North Carolina

SAMPLE ID	DATE	DEPTH (feet)	PID (ppm)	QROS - QED Analysis			Laboratory Analysis (Pace)	
				GRO (mg/kg) (C5-C10)	DRO (mg/kg) (C10-C35)	TPH (mg/kg) (C5-C35)	EPA Method 3550 DRO (mg/kg)	EPA Method 5035 GRO (mg/kg)
25-1(2-4)	2/17/2014	2 to 4	90.0	<0.1	<0.3	<0.7	-----	-----
25-1(4-6)	2/17/2014	4 to 6	70.0	<0.1	<0.3	<0.3	-----	-----
25-2(4-6)	2/17/2014	4 to 6	75.0	<0.1	1	1	-----	-----
25-3(4-6)	2/17/2014	4 to 6	95.0	<0.1	<0.3	<0.7	-----	-----
25-3(6-8)	2/17/2014	6 to 8	85	<0.1	<0.3	<0.3	-----	-----
NC Initial Action Level - UST Section for 5035/5030-GRO; 3550-DRO				10	10	NA	10	10

PID= photo-ionization detector
 PPM= parts-per-million

GRO= Gasoline Range Organics
 DRO= Diesel Range Organics
 mg/kg= milligrams-per-kilogram

TPH= Total Petroleum Hydrocarbons (GRO + DRO)

NA= Not Applicable
 "-----" = No Laboratory Analysis

* Bold values indicate concentrations above initial action levels

TABLE 3
Summary of Volatile/Semi-Volatile Laboratory Results of Soil Samples
Parcel 025 - Tally Investments, LLC
460 W. Rowan St., Cumberland County, NC

Analytical Parameter	Analytical Method	SAMPLE ID NUMBER			Residential MSCC (mg/kg)	Soil to Groundwater MSCC (mg/kg)
		25-1(2-4)	25-2(4-6)	25-3(4-6)		
	Sample Date:	2/15/2014	2/15/2014	2/15/2014		
	Depth (feet):	2 to 4	4 to 6	4 to 6		
	Location	driveway	NE parcel	SE parcel		
Acetone	8260	ND	ND	ND	14000	24
Benzene	8260	ND	ND	ND	18	0.0056
Bromobenzene	8260	ND	ND	ND	NMSCC	NMSCC
Bromoform	8260	ND	ND	ND	81	0.026
2-Butanone (MEK)	8260	ND	ND	ND	9385	16
n-Butylbenzene	8260	ND	ND	ND	626	4.3
sec-Butylbenzene	8260	ND	ND	ND	626	3.3
Styrene	8260	ND	ND	ND	3128	1.5
tert-Butylbenzene	8260	ND	ND	ND	626	3.4
4-Chlorotoluene	8260	ND	ND	ND	1000	0.1
Ethylbenzene	8260	ND	ND	ND	1560	4.9
1,2-Dichloroethane	8260	ND	ND	ND	7	0.0019
Isopropyl ether (IPE)	8260	ND	ND	ND	156	0.37
Isopropylbenzene	8260	ND	ND	ND	1564	1.7
p-Isopropyltoluene	8260	ND	ND	ND	NMSCC	NMSCC
Naphthalene	8260	ND	ND	ND	313	0.16
n-Propylbenzene	8260	ND	ND	ND	626	1.7
Toluene	8260	ND	ND	ND	1200	4.3
1,2,4-Trimethylbenzene	8260	ND	ND	ND	782	8.5
1,3,5-Trimethylbenzene	8260	ND	ND	ND	782	8.3
Total Xylenes	8260	ND	ND	ND	3129	4.6
MTBE	8260	ND	ND	ND	350	0.091
2-Hexanone	8260	ND	ND	ND	70	0.1
Methylene chloride	8260	ND	ND	ND	85	0.02
All Other 8260 Parameters	8260	ND	ND	ND	NA	NA
Acenaphthene	8270	ND	ND	ND	940	8.2
bis(2-Ethylhexyl)phthalate	8270	ND	ND	ND	46	6.6
1-Methylnaphthalene	8270	ND	ND	ND	20	0.004
2-Methylnaphthalene	8270	ND	ND	ND	63	3.6
Naphthalene	8270	ND	ND	ND	313	0.16
All Other 8270 Parameters	8270	ND	ND	ND	NA	NA
PID Field Screening (ppm)	PID	90.0	75.0	95.0	NA	NA

mg/kg = parts per million (ppm).
BOLD values are above MSCC levels.
 NS=Not Sampled for Parameter

MSCC = Maximum Soil Contaminant Concentrations
 ND = Not Detected.
 J= Estimated Concentration

NMSCC= No MSCC
 NA Not Applicable
 CI= Considered Immobile

TABLE 4
Summary of Groundwater Analytical Results
 NCDOT State Project B-4490
 460 W. Rowan St. - Parcel 025
 Fayetteville, Cumberland County, North Carolina

PARAMETER	UNITS	SAMPLE ID	NCAC 2L GROUNDWATER STANDARD
		25-3(TW)	
EPA Method 6200B VOCs; Sample Collection Date: 2/18/14			
Benzene	ug/L	ND	1
Chloroform	ug/L	ND	70
Diisopropyl Ether (IPE)	ug/L	ND	70
Ethyl Benzene	ug/L	ND	600
Isopropylbenzene (Cumene)	ug/L	ND	70
Naphthalene	ug/L	ND	6
Styrene	ug/L	ND	70
Toluene	ug/L	ND	600
Total Xylenes	ug/L	ND	500
n-Propylbenzene	ug/L	ND	70
sec-Butylbenzene	ug/L	ND	70
tert-Butyl methyl ether (MTBE)	ug/L	ND	20
tert-Butylbenzene	ug/L	ND	70
1,2,4-Trimethylbenzene	ug/L	ND	400
1,2-Dichloroethane	ug/L	ND	0.4
1,3,5-Trimethylbenzene	ug/L	ND	400
4-Isopropyltoluene	ug/L	ND	25
All Other Parameters	ug/L	ND	NA
EPA Method 625 Semi-Volatile Organic Compounds			
Acenaphthene	ug/L	ND	80
Diethylphthalate	ug/L	ND	6000
bis(2-Ethylhexyl)phthalate	ug/L	ND	3
Naphthalene	ug/L	ND	6
Phenanthrene	ug/L	ND	200
Phenol	ug/L	ND	30
Pyrene	ug/L	ND	200
All Other Parameters	ug/L	ND	NA

ug/L= micrograms-per-liter

ND= Not Detected at or above adjusted reporting limit.

NA= Not Applicable

APPENDIX A



Parcel 025

Hillsboro St

Image © 2014 DigitalGlobe

Google earth
2011

Google earth





Parcel 025

Hillsboro St

Image © 2014 DigitalGlobe

Google earth
2010

Google earth





Parcel 025

Hillsboro St

Image © 2014 DigitalGlobe

Google earth
2009

Google earth





Parcel 025

Hillsboro St

Image © 2004 DigitalGlobe

Google earth
2003



Google earth





Parcel 025

Hillsboro St

Image U.S. Geological Survey

Google earth
1993



Google earth





Parcel 025

1972



Parcel 025

1966



Parcel 025

1960

APPENDIX B



PYRAMID ENVIRONMENTAL & ENGINEERING
(PROJECT 2014-008)

GEOPHYSICAL SURVEY

PARCEL 025 – TALLY INVESTMENTS, LLC
460 W. ROWAN ST.
NCDOT PROJECT B-4490 (33727.1.1)

FAYETTEVILL, CUMBERLAND COUNTY, NC

FEBRUARY 12, 2014

Report prepared for:

Mr. Gordon Box
GeoEnvironmental Project Manager
Geotechnical Engineering Unit
1020 Birch Ridge Drive
Raleigh, NC 27610

Prepared by: _____

Eric C. Cross, P.G.
NC License #2181

Reviewed by: _____

Douglas A. Canavello, P.G.
NC License #1066

GEOPHYSICAL INVESTIGATION REPORT
Parcel 025, 460 W. Rowan St.
Fayetteville, Cumberland County, North Carolina

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Field Methodology.....	2
Discussion of Results.....	3
Summary and Conclusions	4
Limitations	4

Figures

- Figure 1 – Parcel 025 – Geophysical Survey Boundaries and Site Photographs
- Figure 2 – Parcel 025 – GPR Transect Locations and Select Images

Appendices

- Appendix A – GPR Transect Images

EXECUTIVE SUMMARY

Project Description: Pyramid Environmental conducted a geophysical investigation for the North Carolina Department of Transportation (NCDOT), at the Tally Investments, LLC property, Parcel 025, 460 W. Rowan St., Fayetteville, Cumberland County, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project B-4490). The geophysical survey boundaries at the project site were designed to include the portions of the property between the existing edge of pavement and the proposed ROW and easements, whichever distance was greater. The geophysical investigation consisted of a ground penetrating radar (GPR) survey.

Geophysical Results: All accessible areas of the parcel were surveyed by the GPR, and no large structures were identified. Isolated zones of possible debris and suspected utilities were identified by the GPR. The geophysical investigation did not record evidence of any metallic USTs at the property. However, it should be noted that only a small portion of the property was surveyed due to the buildings and parked vehicles on-site. Additionally, the extensive metal across the site (buildings, vehicles, and fences) prevented EM61 data from being collected. The most effective approach to locating metallic USTs is to first perform a metal detection survey using EM61, followed by a GPR survey. In this case, the typical approach was not possible.

INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for the North Carolina Department of Transportation (NCDOT), at the Tally Investments, LLC property, Parcel 025, 460 W. Rowan St., Fayetteville, Cumberland County, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project B-4490). The NCDOT indicated that the site was anticipated to be a total take, and the geophysical survey boundaries were designed to include all accessible portions of the parcel. The parcel was approximately 90 feet wide (east to west) and 130 feet from north to south. Conducted on February 4, 2014, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

The site was an active automobile repair facility consisting of a large warehouse building and an apparent converted residential building directly adjacent to the warehouse. The two buildings encompassed the vast majority of the property, resulting in extremely limited access. A significant number of parked vehicles were also present on the south and east sides of the buildings. Aerial photographs showing the survey area boundaries and ground-level photographs are shown in **Figure 1**.

FIELD METHODOLOGY

Prior to conducting the geophysical investigation, a 20-foot by 10-foot survey grid was established across the geophysical survey areas using measuring tapes and water-based marking paint. These grid marks were used as X-Y coordinates for location control when collecting the geophysical data and establishing base maps for the geophysical results.

The geophysical investigation consisted of a ground penetrating radar (GPR) survey. EM61 data were not collected at this site due to the extremely limited access combined with the extensive number of parked vehicles and chain link fence surrounding the property.

GPR data were acquired across all accessible portions of the parcel on February 4, 2014, using a Geophysical Survey Systems, Inc. (GSSI) SIR-2000 unit equipped with a 400 MHz antenna.

Data were collected generally from east to west and north to south across the property. The GPR data were viewed in real time using a vertical scan of 512 samples, at a rate of 48 scans per second. GPR data were viewed down to a maximum depth of approximately 8 feet, based on an estimated two-way travel time of 8 nanoseconds per foot. GPR transects were saved to the hard drive of the SIR unit for post-processing and figure generation.

DISCUSSION OF RESULTS

Discussion of GPR Survey: **Figure 2** presents the locations of the formal GPR transects performed at the property, as well as images of some of the transects. **Appendix A** includes images of all GPR transects performed at the site. GPR Transects 1-11 were performed across the accessible portions of the property. Isolated areas of possible debris and suspected utilities were identified on the southeast portion of the property. The suspected utilities correlated to utilities that were subsequently marked by the private utility locator. Reinforced concrete was observed at the driveway on the southwest portion of the property leading up to the warehouse building. No large structures were observed in the subsurface at the locations of the GPR transects that would suggest the presence of a UST.

The geophysical investigation did not record any evidence of metallic USTs at the property within the survey area limits. However, it should be noted that only a small portion of the property was surveyed due to the buildings and parked vehicles on-site. Additionally, the extensive metal across the site (buildings, vehicles, and fences) prevented EM61 data from being collected. The most effective approach to locating metallic USTs is to first perform a metal detection survey using EM61, followed by a GPR survey. In this case, the typical approach was not possible.

SUMMARY & CONCLUSIONS

Our evaluation of the GPR data collected across Parcel 025 in Fayetteville, North Carolina, provides the following summary and conclusions:

- The GPR survey provided reliable results for the detection of metallic USTs within the accessible portions of the geophysical survey area, however, EM61 data were not collected due to buildings, parked vehicles, and metal fencing.
- All accessible areas of the parcel were surveyed by the GPR, and no large structures were identified. Isolated zones of possible debris and suspected utilities were identified by the GPR.
- The geophysical investigation did not record evidence of any metallic USTs at the property.
- Only a small portion of the property was surveyed due to the buildings and parked vehicles on-site. Additionally, the extensive metal across the site (buildings, vehicles, and fences) prevented EM61 data from being collected.

LIMITATIONS

Geophysical surveys have been performed and this report prepared for the NCDOT in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR surveys are non-unique and may not represent actual subsurface conditions. The EM61 and GPR results obtained for this project have not conclusively determined the definitive presence or absence of metallic USTs, but that the evidence collected is sufficient to result in the conclusions made in this report. Additionally, it should be understood that areas containing extensive vegetation, reinforced concrete, or other restrictions to the accessibility of the geophysical instruments could not be fully investigated.




Approximate Boundaries of the Geophysical Survey Area



View of East Portion of Survey Area
(Facing Approximately North)



View of West Portion of Survey Area
(Facing Approximately North)

TITLE		PARCEL 025: GEOPHYSICAL SURVEY BOUNDARIES AND SITE PHOTOGRAPHS	
PROJECT		NCDOT PROJECT B-4490 (33727.1.1) FAYETTEVILLE, CUMBERLAND COUNTY, NC	
		503 INDUSTRIAL AVENUE GREENSBORO, NC 27460 (336) 335-3174 (p) (336) 691-0648 (f) License # C1251 Eng. / License # C257 Geology	
DATE	2/7/2014	CLIENT	NCDOT
PYRAMID PROJECT #:	2014-008	FIGURE 1	

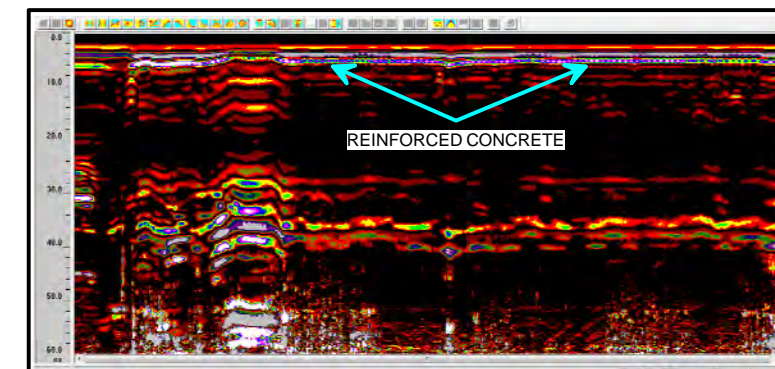


NO EVIDENCE OF USTs OBSERVED

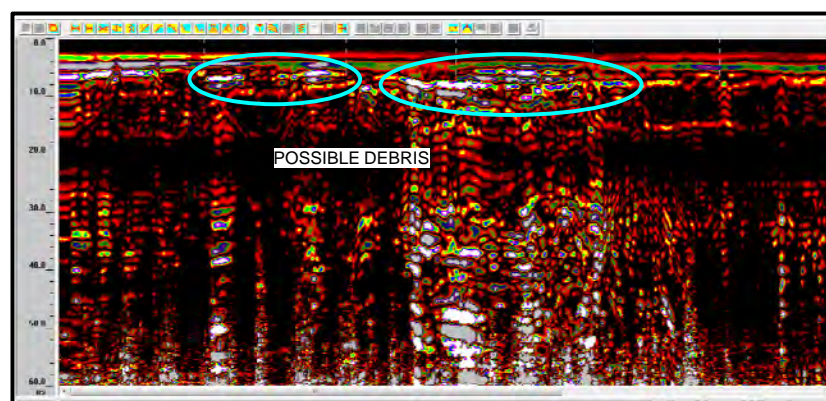
EM61 data were not collected at this parcel due to limited access and extensive cultural interference such as chain link fences, buildings, and multiple parked vehicles. Ground penetrating radar (GPR) data were collected on February 4, 2013, using a GSSI SIR 2000 unit coupled to a 400 MHz antennae. GPR transects were performed in a grid-like fashion across all accessible areas of the property. No evidence of any large subsurface structures was recorded by the GPR that would be indicative of possible or probable USTs. It should be noted that large portions of the property were not surveyed due to inaccessibility resulting from buildings and vehicles.



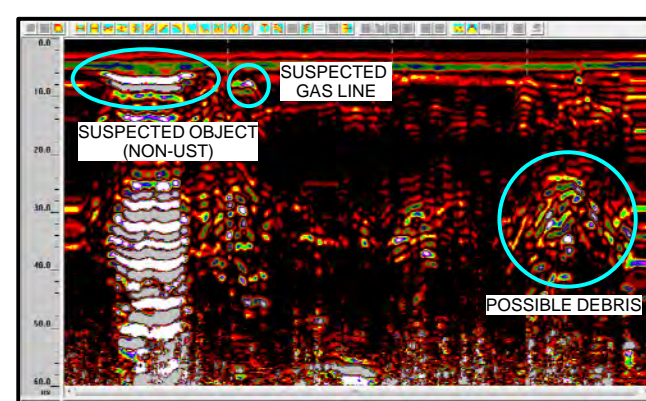
Approximate Locations of GPR Transects



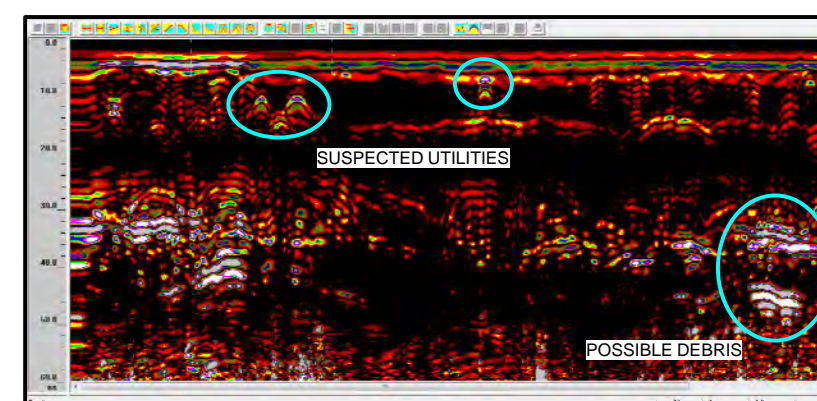
GPR Transect 7




GPR Transect 2



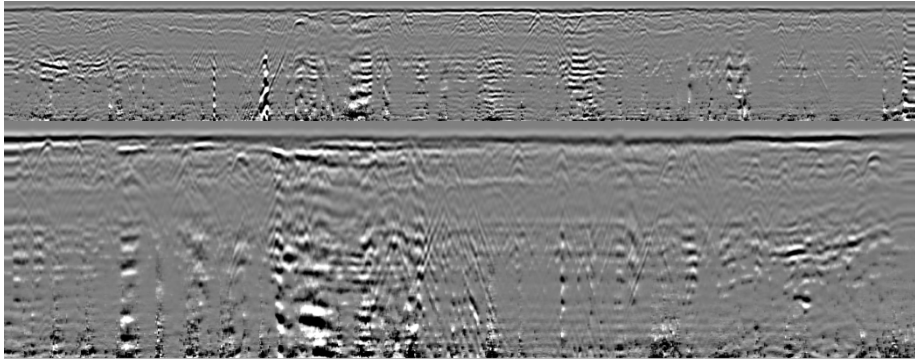
GPR Transect 4



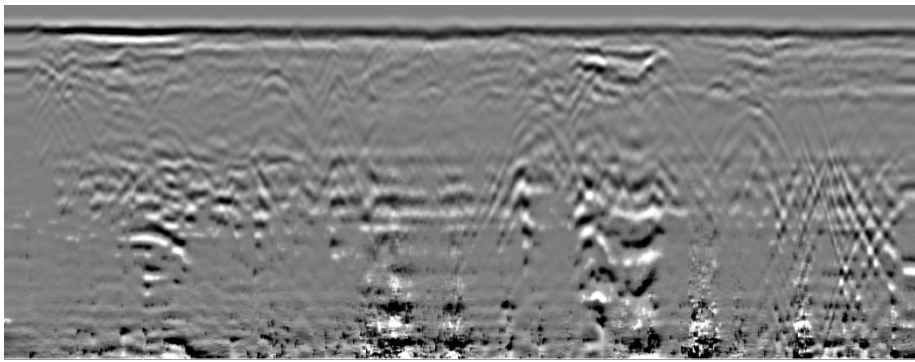
GPR Transect 6

TITLE		PARCEL 025: GPR TRANSECT LOCATIONS AND SELECT IMAGES	
PROJECT		NCDOT PROJECT B-4490 (33727.1.1) FAYETTEVILLE, CUMBERLAND COUNTY, NC	
		503 INDUSTRIAL AVENUE GREENSBORO, NC 27460 (336) 335-3174 (p) (336) 691-0648 (f) License # C1251 Eng. / License # C257 Geology	
DATE	2/7/2014	CLIENT	NCDOT
PYRAMID PROJECT #:	2014-008	FIGURE 2	

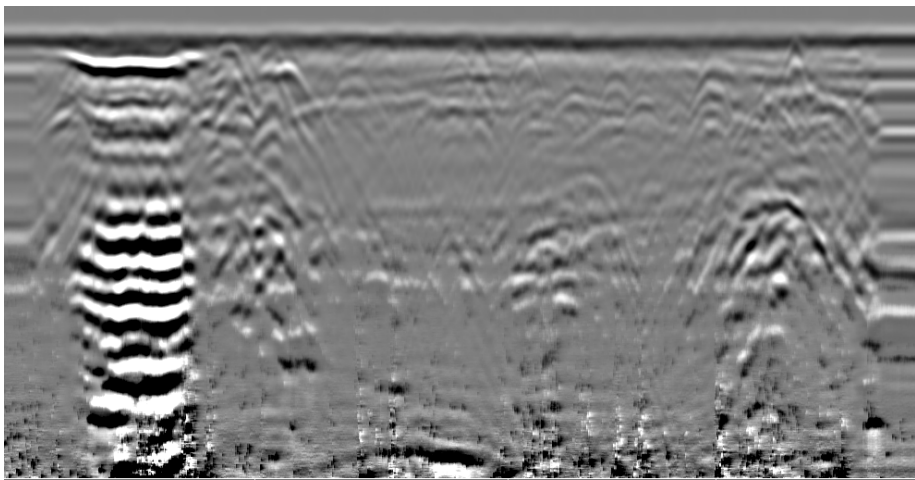
Appendix A – GPR Transect Images



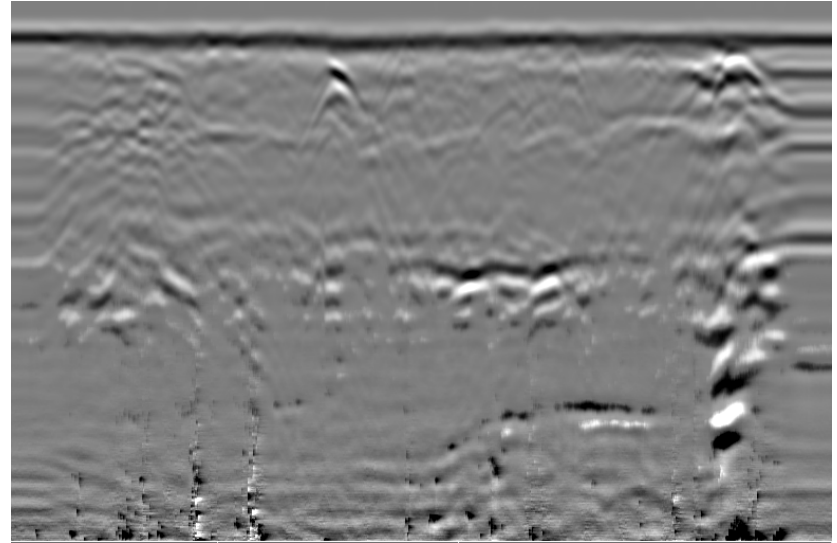
Transect 1



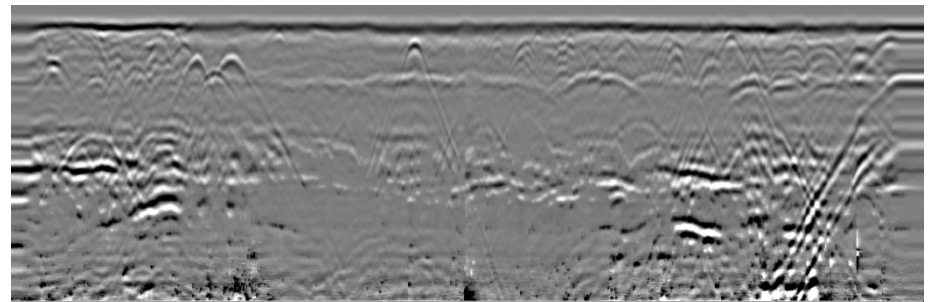
Transect 2



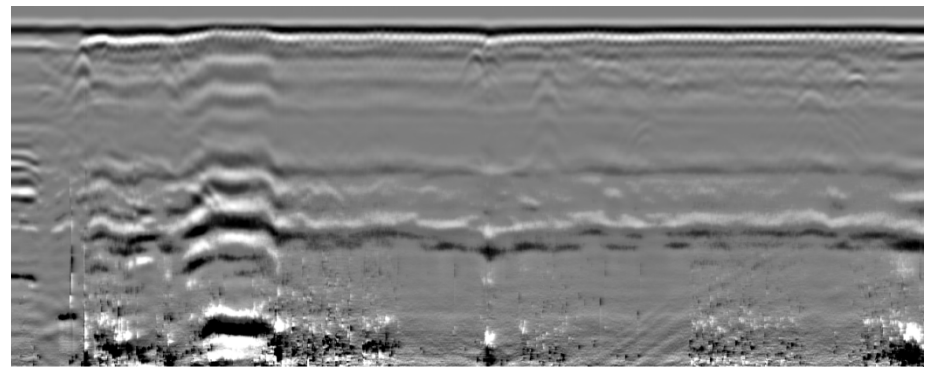
Transect 3



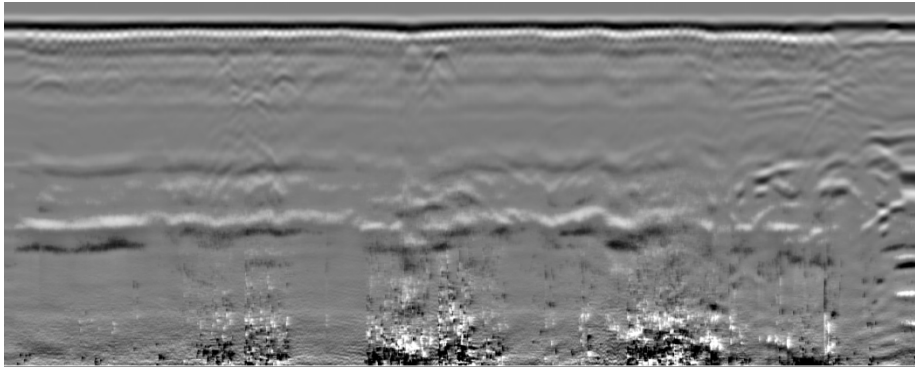
Transect 4



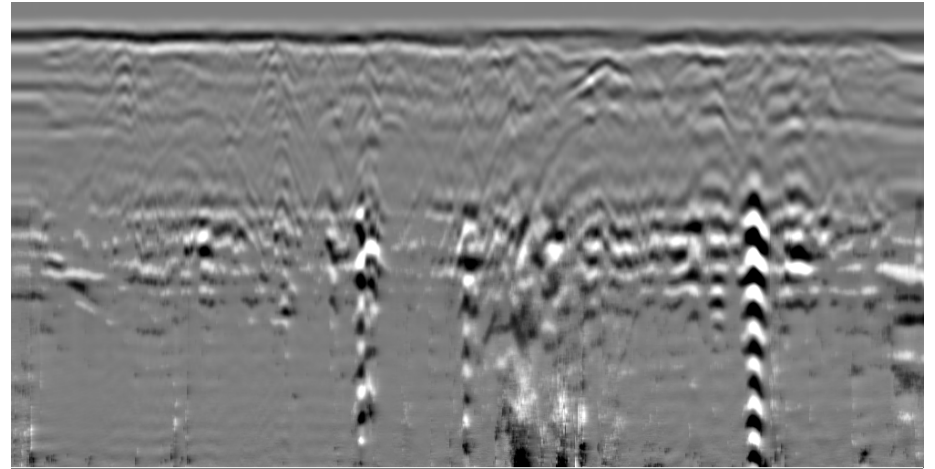
Transect 5



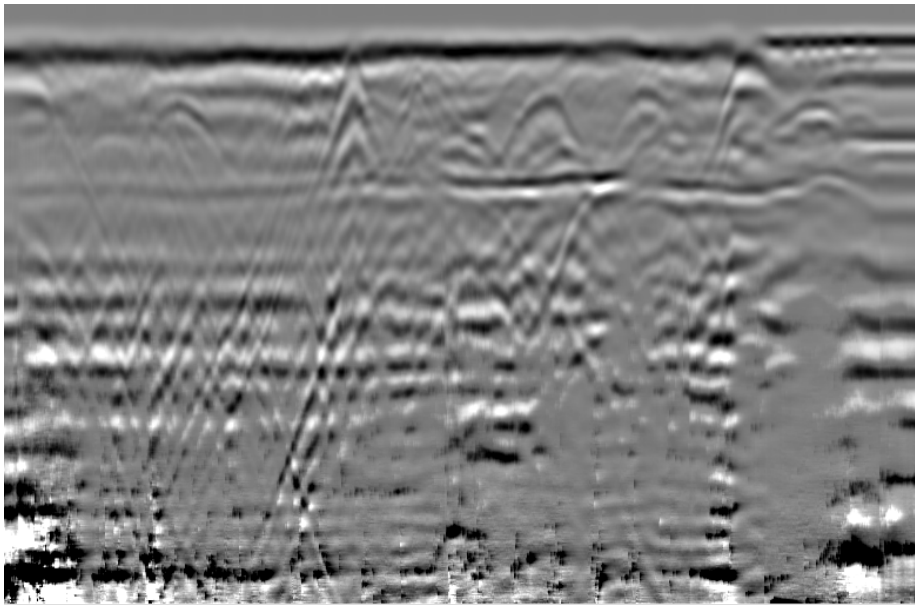
Transect 6



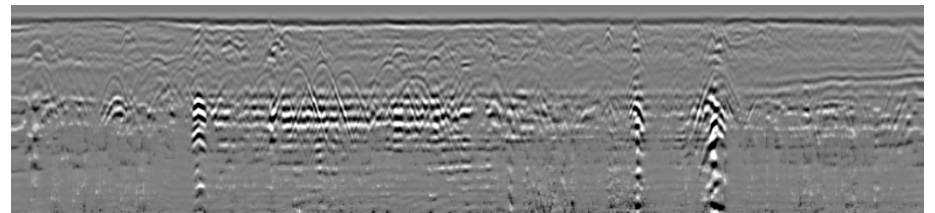
Transect 7



Transect 9



Transect 8



Transect 10

APPENDIX C

APPENDIX D



Hydrocarbon Analysis Results

Client: NCDOT Cumberland County - Parcel 025
Address: 460 W. Rowan Street - Parcel 025
 Fayetteville, NC

Samples taken Five (5) Samples Taken
Samples extracted Five (5) Samples Extracted
Samples analysed Five (5) Samples Analysed

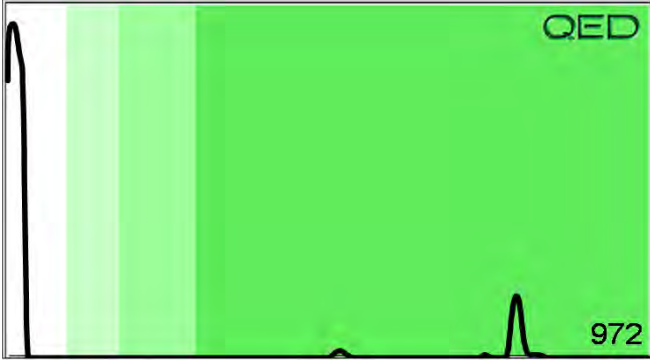
Contact: **Operator** Ryan Kramer

Project: NCDOT Cumberland County B-4490

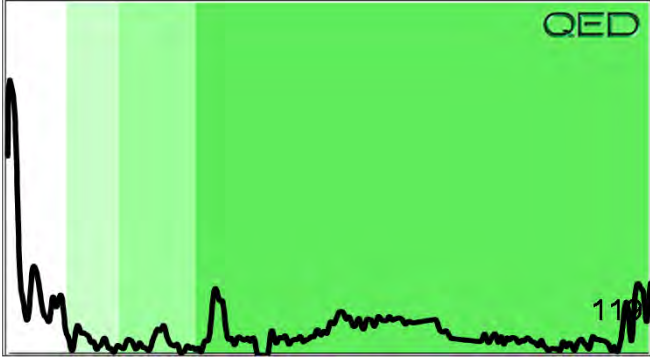
Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	25-1(2-4)	13.0	<0.1	<0.1	<0.3	<0.7	<0.1	<0.1	<0.01	0	0	100	TPH not detected
s	25-1(4-6)	12.0	<0.1	<0.1	<0.3	<0.3	0.14	<0.1	<0.01	0	12.4	87.6	Deg.Fuel 6.4%
s	25-2(4-6)	13.0	<0.1	<0.1	1	1	0.03	<0.1	<0.01	0	0	100	(P) 29.2%
s	25-3(4-6)	14.0	<0.1	<0.1	<0.3	<0.7	<0.1	<0.1	<0.01	0	0	100	TPH not detected
s	25-3(6-8)	14.0	<0.1	<0.1	<0.3	<0.3	0.08	<0.1	<0.01	0	0	100	Deg.Fuel Residue (P) 10.2%
			Initial Calibrator QC check		OK								

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content
 Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library
 (SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present

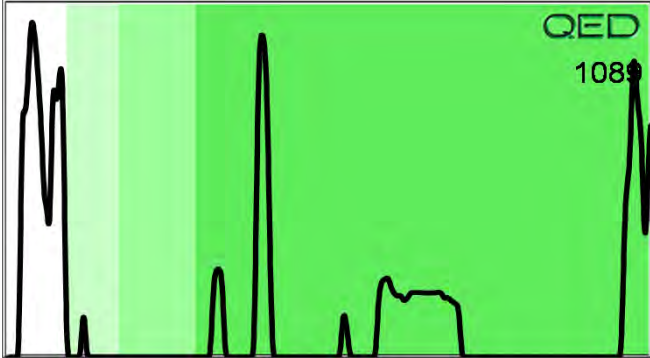
TPH not detected 25-1(2-4)



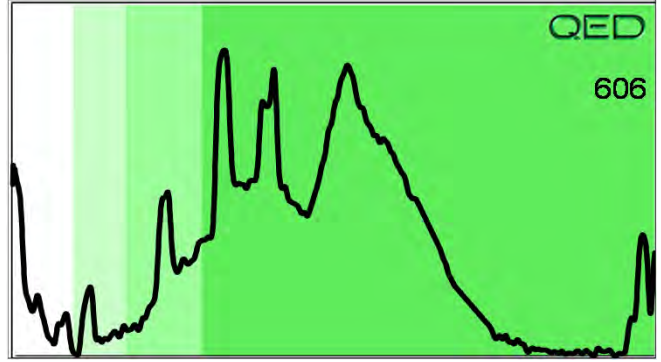
(P) 29.2% 25-2(4-6)



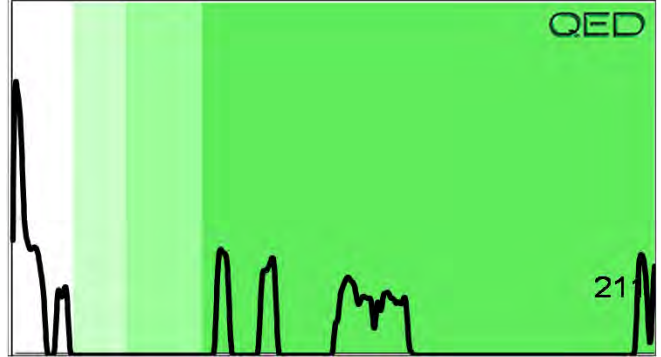
Deg.Fuel Residue (P) 10.2% 25-3(6-8)



Deg.Fuel 6.4% 25-1(4-6)



TPH not detected 25-3(4-6)



APPENDIX E

March 03, 2014

Chemical Testing Engineer
Materials and Tests Unit
1801 Blue Ridge Road
Raleigh, NC 27607

RE: Project: WBS 33727.1.1 Cumberland 25
Pace Project No.: 92190306

Dear Chemical Engineer:

Enclosed are the analytical results for sample(s) received by the laboratory on February 19, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jon D Bradley
jon.bradley@pacelabs.com
Project Manager

Enclosures

cc: Tim Leatherman, Pyramid Environmental



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-1 (2-4) **Lab ID: 92190306001** Collected: 02/17/14 12:15 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Acenaphthene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	83-32-9	
Acenaphthylene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	208-96-8	
Aniline	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	62-53-3	
Anthracene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	120-12-7	
Benzo(a)anthracene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	56-55-3	
Benzo(a)pyrene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	207-08-9	
Benzoic Acid	ND	ug/kg	1890	1	02/20/14 08:54	02/21/14 16:32	65-85-0	
Benzyl alcohol	ND	ug/kg	756	1	02/20/14 08:54	02/21/14 16:32	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	101-55-3	
Butylbenzylphthalate	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	756	1	02/20/14 08:54	02/21/14 16:32	59-50-7	
4-Chloroaniline	ND	ug/kg	1890	1	02/20/14 08:54	02/21/14 16:32	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	108-60-1	
2-Chloronaphthalene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	91-58-7	
2-Chlorophenol	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	7005-72-3	
Chrysene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	53-70-3	
Dibenzofuran	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1890	1	02/20/14 08:54	02/21/14 16:32	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	120-83-2	
Diethylphthalate	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	105-67-9	
Dimethylphthalate	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	131-11-3	
Di-n-butylphthalate	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	756	1	02/20/14 08:54	02/21/14 16:32	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1890	1	02/20/14 08:54	02/21/14 16:32	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	606-20-2	
Di-n-octylphthalate	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	117-81-7	
Fluoranthene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	206-44-0	
Fluorene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	87-68-3	
Hexachlorobenzene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	77-47-4	
Hexachloroethane	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	193-39-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-1 (2-4) **Lab ID: 92190306001** Collected: 02/17/14 12:15 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Isophorone	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	78-59-1	
1-Methylnaphthalene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	90-12-0	
2-Methylnaphthalene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32		
Naphthalene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	91-20-3	
2-Nitroaniline	ND	ug/kg	1890	1	02/20/14 08:54	02/21/14 16:32	88-74-4	
3-Nitroaniline	ND	ug/kg	1890	1	02/20/14 08:54	02/21/14 16:32	99-09-2	
4-Nitroaniline	ND	ug/kg	756	1	02/20/14 08:54	02/21/14 16:32	100-01-6	
Nitrobenzene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	98-95-3	
2-Nitrophenol	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	88-75-5	
4-Nitrophenol	ND	ug/kg	1890	1	02/20/14 08:54	02/21/14 16:32	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	86-30-6	
Pentachlorophenol	ND	ug/kg	1890	1	02/20/14 08:54	02/21/14 16:32	87-86-5	
Phenanthrene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	85-01-8	
Phenol	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	108-95-2	
Pyrene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	378	1	02/20/14 08:54	02/21/14 16:32	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	71 %		23-110	1	02/20/14 08:54	02/21/14 16:32	4165-60-0	
2-Fluorobiphenyl (S)	69 %		30-110	1	02/20/14 08:54	02/21/14 16:32	321-60-8	
Terphenyl-d14 (S)	104 %		28-110	1	02/20/14 08:54	02/21/14 16:32	1718-51-0	
Phenol-d6 (S)	75 %		22-110	1	02/20/14 08:54	02/21/14 16:32	13127-88-3	
2-Fluorophenol (S)	76 %		13-110	1	02/20/14 08:54	02/21/14 16:32	367-12-4	
2,4,6-Tribromophenol (S)	88 %		27-110	1	02/20/14 08:54	02/21/14 16:32	118-79-6	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	92.8	1		02/21/14 17:26	67-64-1	
Benzene	ND	ug/kg	4.6	1		02/21/14 17:26	71-43-2	
Bromobenzene	ND	ug/kg	4.6	1		02/21/14 17:26	108-86-1	
Bromochloromethane	ND	ug/kg	4.6	1		02/21/14 17:26	74-97-5	
Bromodichloromethane	ND	ug/kg	4.6	1		02/21/14 17:26	75-27-4	
Bromoform	ND	ug/kg	4.6	1		02/21/14 17:26	75-25-2	
Bromomethane	ND	ug/kg	9.3	1		02/21/14 17:26	74-83-9	
2-Butanone (MEK)	ND	ug/kg	92.8	1		02/21/14 17:26	78-93-3	
n-Butylbenzene	ND	ug/kg	4.6	1		02/21/14 17:26	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.6	1		02/21/14 17:26	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.6	1		02/21/14 17:26	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.6	1		02/21/14 17:26	56-23-5	
Chlorobenzene	ND	ug/kg	4.6	1		02/21/14 17:26	108-90-7	
Chloroethane	ND	ug/kg	9.3	1		02/21/14 17:26	75-00-3	
Chloroform	ND	ug/kg	4.6	1		02/21/14 17:26	67-66-3	

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-1 (2-4) **Lab ID: 92190306001** Collected: 02/17/14 12:15 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Chloromethane	ND	ug/kg	9.3	1		02/21/14 17:26	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.6	1		02/21/14 17:26	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.6	1		02/21/14 17:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.6	1		02/21/14 17:26	96-12-8	
Dibromochloromethane	ND	ug/kg	4.6	1		02/21/14 17:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.6	1		02/21/14 17:26	106-93-4	
Dibromomethane	ND	ug/kg	4.6	1		02/21/14 17:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.6	1		02/21/14 17:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.6	1		02/21/14 17:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.6	1		02/21/14 17:26	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.3	1		02/21/14 17:26	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.6	1		02/21/14 17:26	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.6	1		02/21/14 17:26	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.6	1		02/21/14 17:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.6	1		02/21/14 17:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.6	1		02/21/14 17:26	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.6	1		02/21/14 17:26	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.6	1		02/21/14 17:26	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.6	1		02/21/14 17:26	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.6	1		02/21/14 17:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.6	1		02/21/14 17:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.6	1		02/21/14 17:26	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.6	1		02/21/14 17:26	108-20-3	
Ethylbenzene	ND	ug/kg	4.6	1		02/21/14 17:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.6	1		02/21/14 17:26	87-68-3	
2-Hexanone	ND	ug/kg	46.4	1		02/21/14 17:26	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.6	1		02/21/14 17:26	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.6	1		02/21/14 17:26	99-87-6	
Methylene Chloride	ND	ug/kg	18.6	1		02/21/14 17:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	46.4	1		02/21/14 17:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.6	1		02/21/14 17:26	1634-04-4	
Naphthalene	ND	ug/kg	4.6	1		02/21/14 17:26	91-20-3	
n-Propylbenzene	ND	ug/kg	4.6	1		02/21/14 17:26	103-65-1	
Styrene	ND	ug/kg	4.6	1		02/21/14 17:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.6	1		02/21/14 17:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.6	1		02/21/14 17:26	79-34-5	
Tetrachloroethene	ND	ug/kg	4.6	1		02/21/14 17:26	127-18-4	
Toluene	ND	ug/kg	4.6	1		02/21/14 17:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.6	1		02/21/14 17:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.6	1		02/21/14 17:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.6	1		02/21/14 17:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.6	1		02/21/14 17:26	79-00-5	
Trichloroethene	ND	ug/kg	4.6	1		02/21/14 17:26	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.6	1		02/21/14 17:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.6	1		02/21/14 17:26	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.6	1		02/21/14 17:26	95-63-6	

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-1 (2-4) **Lab ID: 92190306001** Collected: 02/17/14 12:15 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
1,3,5-Trimethylbenzene	ND	ug/kg	4.6	1		02/21/14 17:26	108-67-8	
Vinyl acetate	ND	ug/kg	46.4	1		02/21/14 17:26	108-05-4	
Vinyl chloride	ND	ug/kg	9.3	1		02/21/14 17:26	75-01-4	
Xylene (Total)	ND	ug/kg	9.3	1		02/21/14 17:26	1330-20-7	
m&p-Xylene	ND	ug/kg	9.3	1		02/21/14 17:26	179601-23-1	
o-Xylene	ND	ug/kg	4.6	1		02/21/14 17:26	95-47-6	
Surrogates								
Toluene-d8 (S)	99 %		70-130	1		02/21/14 17:26	2037-26-5	
4-Bromofluorobenzene (S)	89 %		70-130	1		02/21/14 17:26	460-00-4	
1,2-Dichloroethane-d4 (S)	118 %		70-132	1		02/21/14 17:26	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	12.7 %		0.10	1		03/03/14 16:12		

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-2 (4-6) **Lab ID: 92190306002** Collected: 02/17/14 12:45 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Acenaphthene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	83-32-9	
Acenaphthylene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	208-96-8	
Aniline	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	62-53-3	
Anthracene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	120-12-7	
Benzo(a)anthracene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	56-55-3	
Benzo(a)pyrene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	207-08-9	
Benzoic Acid	ND	ug/kg	1920	1	02/20/14 08:54	02/21/14 16:59	65-85-0	
Benzyl alcohol	ND	ug/kg	768	1	02/20/14 08:54	02/21/14 16:59	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	101-55-3	
Butylbenzylphthalate	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	768	1	02/20/14 08:54	02/21/14 16:59	59-50-7	
4-Chloroaniline	ND	ug/kg	1920	1	02/20/14 08:54	02/21/14 16:59	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	108-60-1	
2-Chloronaphthalene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	91-58-7	
2-Chlorophenol	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	7005-72-3	
Chrysene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	53-70-3	
Dibenzofuran	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1920	1	02/20/14 08:54	02/21/14 16:59	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	120-83-2	
Diethylphthalate	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	105-67-9	
Dimethylphthalate	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	131-11-3	
Di-n-butylphthalate	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	768	1	02/20/14 08:54	02/21/14 16:59	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1920	1	02/20/14 08:54	02/21/14 16:59	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	606-20-2	
Di-n-octylphthalate	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	117-81-7	
Fluoranthene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	206-44-0	
Fluorene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	87-68-3	
Hexachlorobenzene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	77-47-4	
Hexachloroethane	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	193-39-5	

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-2 (4-6) **Lab ID: 92190306002** Collected: 02/17/14 12:45 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Isophorone	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	78-59-1	
1-Methylnaphthalene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	90-12-0	
2-Methylnaphthalene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59		
Naphthalene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	91-20-3	
2-Nitroaniline	ND	ug/kg	1920	1	02/20/14 08:54	02/21/14 16:59	88-74-4	
3-Nitroaniline	ND	ug/kg	1920	1	02/20/14 08:54	02/21/14 16:59	99-09-2	
4-Nitroaniline	ND	ug/kg	768	1	02/20/14 08:54	02/21/14 16:59	100-01-6	
Nitrobenzene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	98-95-3	
2-Nitrophenol	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	88-75-5	
4-Nitrophenol	ND	ug/kg	1920	1	02/20/14 08:54	02/21/14 16:59	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	86-30-6	
Pentachlorophenol	ND	ug/kg	1920	1	02/20/14 08:54	02/21/14 16:59	87-86-5	
Phenanthrene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	85-01-8	
Phenol	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	108-95-2	
Pyrene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	384	1	02/20/14 08:54	02/21/14 16:59	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	32 %		23-110	1	02/20/14 08:54	02/21/14 16:59	4165-60-0	
2-Fluorobiphenyl (S)	29 %		30-110	1	02/20/14 08:54	02/21/14 16:59	321-60-8	S0
Terphenyl-d14 (S)	77 %		28-110	1	02/20/14 08:54	02/21/14 16:59	1718-51-0	
Phenol-d6 (S)	34 %		22-110	1	02/20/14 08:54	02/21/14 16:59	13127-88-3	
2-Fluorophenol (S)	33 %		13-110	1	02/20/14 08:54	02/21/14 16:59	367-12-4	
2,4,6-Tribromophenol (S)	45 %		27-110	1	02/20/14 08:54	02/21/14 16:59	118-79-6	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	81.6	1		02/21/14 17:46	67-64-1	
Benzene	ND	ug/kg	4.1	1		02/21/14 17:46	71-43-2	
Bromobenzene	ND	ug/kg	4.1	1		02/21/14 17:46	108-86-1	
Bromochloromethane	ND	ug/kg	4.1	1		02/21/14 17:46	74-97-5	
Bromodichloromethane	ND	ug/kg	4.1	1		02/21/14 17:46	75-27-4	
Bromoform	ND	ug/kg	4.1	1		02/21/14 17:46	75-25-2	
Bromomethane	ND	ug/kg	8.2	1		02/21/14 17:46	74-83-9	
2-Butanone (MEK)	ND	ug/kg	81.6	1		02/21/14 17:46	78-93-3	
n-Butylbenzene	ND	ug/kg	4.1	1		02/21/14 17:46	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.1	1		02/21/14 17:46	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.1	1		02/21/14 17:46	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.1	1		02/21/14 17:46	56-23-5	
Chlorobenzene	ND	ug/kg	4.1	1		02/21/14 17:46	108-90-7	
Chloroethane	ND	ug/kg	8.2	1		02/21/14 17:46	75-00-3	
Chloroform	ND	ug/kg	4.1	1		02/21/14 17:46	67-66-3	

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-2 (4-6) **Lab ID: 92190306002** Collected: 02/17/14 12:45 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Chloromethane	ND	ug/kg	8.2	1		02/21/14 17:46	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.1	1		02/21/14 17:46	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.1	1		02/21/14 17:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.1	1		02/21/14 17:46	96-12-8	
Dibromochloromethane	ND	ug/kg	4.1	1		02/21/14 17:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.1	1		02/21/14 17:46	106-93-4	
Dibromomethane	ND	ug/kg	4.1	1		02/21/14 17:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.1	1		02/21/14 17:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.1	1		02/21/14 17:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.1	1		02/21/14 17:46	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.2	1		02/21/14 17:46	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.1	1		02/21/14 17:46	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.1	1		02/21/14 17:46	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.1	1		02/21/14 17:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.1	1		02/21/14 17:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.1	1		02/21/14 17:46	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.1	1		02/21/14 17:46	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.1	1		02/21/14 17:46	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.1	1		02/21/14 17:46	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.1	1		02/21/14 17:46	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.1	1		02/21/14 17:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.1	1		02/21/14 17:46	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.1	1		02/21/14 17:46	108-20-3	
Ethylbenzene	ND	ug/kg	4.1	1		02/21/14 17:46	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.1	1		02/21/14 17:46	87-68-3	
2-Hexanone	ND	ug/kg	40.8	1		02/21/14 17:46	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.1	1		02/21/14 17:46	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.1	1		02/21/14 17:46	99-87-6	
Methylene Chloride	ND	ug/kg	16.3	1		02/21/14 17:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	40.8	1		02/21/14 17:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.1	1		02/21/14 17:46	1634-04-4	
Naphthalene	ND	ug/kg	4.1	1		02/21/14 17:46	91-20-3	
n-Propylbenzene	ND	ug/kg	4.1	1		02/21/14 17:46	103-65-1	
Styrene	ND	ug/kg	4.1	1		02/21/14 17:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.1	1		02/21/14 17:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.1	1		02/21/14 17:46	79-34-5	
Tetrachloroethene	ND	ug/kg	4.1	1		02/21/14 17:46	127-18-4	
Toluene	ND	ug/kg	4.1	1		02/21/14 17:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.1	1		02/21/14 17:46	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.1	1		02/21/14 17:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.1	1		02/21/14 17:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.1	1		02/21/14 17:46	79-00-5	
Trichloroethene	ND	ug/kg	4.1	1		02/21/14 17:46	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.1	1		02/21/14 17:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.1	1		02/21/14 17:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.1	1		02/21/14 17:46	95-63-6	

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-2 (4-6) **Lab ID: 92190306002** Collected: 02/17/14 12:45 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
1,3,5-Trimethylbenzene	ND	ug/kg	4.1	1		02/21/14 17:46	108-67-8	
Vinyl acetate	ND	ug/kg	40.8	1		02/21/14 17:46	108-05-4	
Vinyl chloride	ND	ug/kg	8.2	1		02/21/14 17:46	75-01-4	
Xylene (Total)	ND	ug/kg	8.2	1		02/21/14 17:46	1330-20-7	
m&p-Xylene	ND	ug/kg	8.2	1		02/21/14 17:46	179601-23-1	
o-Xylene	ND	ug/kg	4.1	1		02/21/14 17:46	95-47-6	
Surrogates								
Toluene-d8 (S)	96	%	70-130	1		02/21/14 17:46	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130	1		02/21/14 17:46	460-00-4	
1,2-Dichloroethane-d4 (S)	121	%	70-132	1		02/21/14 17:46	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	14.0	%	0.10	1		03/03/14 16:13		

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-3 (4-6) **Lab ID: 92190306003** Collected: 02/17/14 13:00 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Acenaphthene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	83-32-9	
Acenaphthylene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	208-96-8	
Aniline	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	62-53-3	
Anthracene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	120-12-7	
Benzo(a)anthracene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	56-55-3	
Benzo(a)pyrene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	207-08-9	
Benzoic Acid	ND	ug/kg	1880	1	02/20/14 08:54	02/21/14 17:25	65-85-0	
Benzyl alcohol	ND	ug/kg	752	1	02/20/14 08:54	02/21/14 17:25	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	101-55-3	
Butylbenzylphthalate	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	752	1	02/20/14 08:54	02/21/14 17:25	59-50-7	
4-Chloroaniline	ND	ug/kg	1880	1	02/20/14 08:54	02/21/14 17:25	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	108-60-1	
2-Chloronaphthalene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	91-58-7	
2-Chlorophenol	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	7005-72-3	
Chrysene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	53-70-3	
Dibenzofuran	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1880	1	02/20/14 08:54	02/21/14 17:25	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	120-83-2	
Diethylphthalate	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	105-67-9	
Dimethylphthalate	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	131-11-3	
Di-n-butylphthalate	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	752	1	02/20/14 08:54	02/21/14 17:25	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1880	1	02/20/14 08:54	02/21/14 17:25	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	606-20-2	
Di-n-octylphthalate	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	117-81-7	
Fluoranthene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	206-44-0	
Fluorene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	87-68-3	
Hexachlorobenzene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	77-47-4	
Hexachloroethane	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	193-39-5	

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-3 (4-6) **Lab ID: 92190306003** Collected: 02/17/14 13:00 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Isophorone	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	78-59-1	
1-Methylnaphthalene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	90-12-0	
2-Methylnaphthalene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25		
Naphthalene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	91-20-3	
2-Nitroaniline	ND	ug/kg	1880	1	02/20/14 08:54	02/21/14 17:25	88-74-4	
3-Nitroaniline	ND	ug/kg	1880	1	02/20/14 08:54	02/21/14 17:25	99-09-2	
4-Nitroaniline	ND	ug/kg	752	1	02/20/14 08:54	02/21/14 17:25	100-01-6	
Nitrobenzene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	98-95-3	
2-Nitrophenol	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	88-75-5	
4-Nitrophenol	ND	ug/kg	1880	1	02/20/14 08:54	02/21/14 17:25	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	86-30-6	
Pentachlorophenol	ND	ug/kg	1880	1	02/20/14 08:54	02/21/14 17:25	87-86-5	
Phenanthrene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	85-01-8	
Phenol	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	108-95-2	
Pyrene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	376	1	02/20/14 08:54	02/21/14 17:25	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	68 %		23-110	1	02/20/14 08:54	02/21/14 17:25	4165-60-0	
2-Fluorobiphenyl (S)	62 %		30-110	1	02/20/14 08:54	02/21/14 17:25	321-60-8	
Terphenyl-d14 (S)	87 %		28-110	1	02/20/14 08:54	02/21/14 17:25	1718-51-0	
Phenol-d6 (S)	69 %		22-110	1	02/20/14 08:54	02/21/14 17:25	13127-88-3	
2-Fluorophenol (S)	75 %		13-110	1	02/20/14 08:54	02/21/14 17:25	367-12-4	
2,4,6-Tribromophenol (S)	73 %		27-110	1	02/20/14 08:54	02/21/14 17:25	118-79-6	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	70.2	1		02/21/14 18:06	67-64-1	
Benzene	ND	ug/kg	3.5	1		02/21/14 18:06	71-43-2	
Bromobenzene	ND	ug/kg	3.5	1		02/21/14 18:06	108-86-1	
Bromochloromethane	ND	ug/kg	3.5	1		02/21/14 18:06	74-97-5	
Bromodichloromethane	ND	ug/kg	3.5	1		02/21/14 18:06	75-27-4	
Bromoform	ND	ug/kg	3.5	1		02/21/14 18:06	75-25-2	
Bromomethane	ND	ug/kg	7.0	1		02/21/14 18:06	74-83-9	
2-Butanone (MEK)	ND	ug/kg	70.2	1		02/21/14 18:06	78-93-3	
n-Butylbenzene	ND	ug/kg	3.5	1		02/21/14 18:06	104-51-8	
sec-Butylbenzene	ND	ug/kg	3.5	1		02/21/14 18:06	135-98-8	
tert-Butylbenzene	ND	ug/kg	3.5	1		02/21/14 18:06	98-06-6	
Carbon tetrachloride	ND	ug/kg	3.5	1		02/21/14 18:06	56-23-5	
Chlorobenzene	ND	ug/kg	3.5	1		02/21/14 18:06	108-90-7	
Chloroethane	ND	ug/kg	7.0	1		02/21/14 18:06	75-00-3	
Chloroform	ND	ug/kg	3.5	1		02/21/14 18:06	67-66-3	

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-3 (4-6) **Lab ID: 92190306003** Collected: 02/17/14 13:00 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Chloromethane	ND	ug/kg	7.0	1		02/21/14 18:06	74-87-3	
2-Chlorotoluene	ND	ug/kg	3.5	1		02/21/14 18:06	95-49-8	
4-Chlorotoluene	ND	ug/kg	3.5	1		02/21/14 18:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	3.5	1		02/21/14 18:06	96-12-8	
Dibromochloromethane	ND	ug/kg	3.5	1		02/21/14 18:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	3.5	1		02/21/14 18:06	106-93-4	
Dibromomethane	ND	ug/kg	3.5	1		02/21/14 18:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	3.5	1		02/21/14 18:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	3.5	1		02/21/14 18:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	3.5	1		02/21/14 18:06	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	7.0	1		02/21/14 18:06	75-71-8	
1,1-Dichloroethane	ND	ug/kg	3.5	1		02/21/14 18:06	75-34-3	
1,2-Dichloroethane	ND	ug/kg	3.5	1		02/21/14 18:06	107-06-2	
1,1-Dichloroethene	ND	ug/kg	3.5	1		02/21/14 18:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	3.5	1		02/21/14 18:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	3.5	1		02/21/14 18:06	156-60-5	
1,2-Dichloropropane	ND	ug/kg	3.5	1		02/21/14 18:06	78-87-5	
1,3-Dichloropropane	ND	ug/kg	3.5	1		02/21/14 18:06	142-28-9	
2,2-Dichloropropane	ND	ug/kg	3.5	1		02/21/14 18:06	594-20-7	
1,1-Dichloropropene	ND	ug/kg	3.5	1		02/21/14 18:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	3.5	1		02/21/14 18:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	3.5	1		02/21/14 18:06	10061-02-6	
Diisopropyl ether	ND	ug/kg	3.5	1		02/21/14 18:06	108-20-3	
Ethylbenzene	ND	ug/kg	3.5	1		02/21/14 18:06	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	3.5	1		02/21/14 18:06	87-68-3	
2-Hexanone	ND	ug/kg	35.1	1		02/21/14 18:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	3.5	1		02/21/14 18:06	98-82-8	
p-Isopropyltoluene	ND	ug/kg	3.5	1		02/21/14 18:06	99-87-6	
Methylene Chloride	ND	ug/kg	14.0	1		02/21/14 18:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	35.1	1		02/21/14 18:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	3.5	1		02/21/14 18:06	1634-04-4	
Naphthalene	ND	ug/kg	3.5	1		02/21/14 18:06	91-20-3	
n-Propylbenzene	ND	ug/kg	3.5	1		02/21/14 18:06	103-65-1	
Styrene	ND	ug/kg	3.5	1		02/21/14 18:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	3.5	1		02/21/14 18:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	3.5	1		02/21/14 18:06	79-34-5	
Tetrachloroethene	ND	ug/kg	3.5	1		02/21/14 18:06	127-18-4	
Toluene	ND	ug/kg	3.5	1		02/21/14 18:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	3.5	1		02/21/14 18:06	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	3.5	1		02/21/14 18:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	3.5	1		02/21/14 18:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	3.5	1		02/21/14 18:06	79-00-5	
Trichloroethene	ND	ug/kg	3.5	1		02/21/14 18:06	79-01-6	
Trichlorofluoromethane	ND	ug/kg	3.5	1		02/21/14 18:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	3.5	1		02/21/14 18:06	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	3.5	1		02/21/14 18:06	95-63-6	

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-3 (4-6) **Lab ID: 92190306003** Collected: 02/17/14 13:00 Received: 02/19/14 17:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
1,3,5-Trimethylbenzene	ND	ug/kg	3.5	1		02/21/14 18:06	108-67-8	
Vinyl acetate	ND	ug/kg	35.1	1		02/21/14 18:06	108-05-4	
Vinyl chloride	ND	ug/kg	7.0	1		02/21/14 18:06	75-01-4	
Xylene (Total)	ND	ug/kg	7.0	1		02/21/14 18:06	1330-20-7	
m&p-Xylene	ND	ug/kg	7.0	1		02/21/14 18:06	179601-23-1	
o-Xylene	ND	ug/kg	3.5	1		02/21/14 18:06	95-47-6	
Surrogates								
Toluene-d8 (S)	98	%	70-130	1		02/21/14 18:06	2037-26-5	
4-Bromofluorobenzene (S)	77	%	70-130	1		02/21/14 18:06	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-132	1		02/21/14 18:06	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	12.2	%	0.10	1		03/03/14 16:13		

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-3 (TW)		Lab ID: 92190306004	Collected: 02/18/14 09:45	Received: 02/19/14 17:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV		Analytical Method: EPA 625 Preparation Method: EPA 625						
Acenaphthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	83-32-9	
Acenaphthylene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	208-96-8	
Anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	120-12-7	
Benzo(a)anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	56-55-3	
Benzo(a)pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	50-32-8	
Benzo(b)fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	205-99-2	
Benzo(g,h,i)perylene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	191-24-2	
Benzo(k)fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	207-08-9	
4-Bromophenylphenyl ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	101-55-3	
Butylbenzylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	85-68-7	
4-Chloro-3-methylphenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	59-50-7	
bis(2-Chloroethoxy)methane	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 02:04	111-91-1	
bis(2-Chloroethyl) ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	108-60-1	
2-Chloronaphthalene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	91-58-7	
2-Chlorophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	95-57-8	
4-Chlorophenylphenyl ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	7005-72-3	
Chrysene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	218-01-9	
Dibenz(a,h)anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	53-70-3	
3,3'-Dichlorobenzidine	ND ug/L		25.0	1	02/20/14 13:00	02/28/14 02:04	91-94-1	
2,4-Dichlorophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	120-83-2	
Diethylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	84-66-2	
2,4-Dimethylphenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 02:04	105-67-9	
Dimethylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	131-11-3	
Di-n-butylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/L		20.0	1	02/20/14 13:00	02/28/14 02:04	534-52-1	
2,4-Dinitrophenol	ND ug/L		50.0	1	02/20/14 13:00	02/28/14 02:04	51-28-5	
2,4-Dinitrotoluene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	121-14-2	
2,6-Dinitrotoluene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	606-20-2	
Di-n-octylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	117-81-7	
Fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	206-44-0	
Fluorene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	86-73-7	
Hexachloro-1,3-butadiene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	87-68-3	
Hexachlorobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	118-74-1	
Hexachlorocyclopentadiene	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 02:04	77-47-4	
Hexachloroethane	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	193-39-5	
Isophorone	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 02:04	78-59-1	
Naphthalene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	91-20-3	
Nitrobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	98-95-3	
2-Nitrophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	88-75-5	
4-Nitrophenol	ND ug/L		50.0	1	02/20/14 13:00	02/28/14 02:04	100-02-7	
N-Nitrosodimethylamine	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 02:04	86-30-6	
Pentachlorophenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 02:04	87-86-5	

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-3 (TW)	Lab ID: 92190306004	Collected: 02/18/14 09:45	Received: 02/19/14 17:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV								
Analytical Method: EPA 625 Preparation Method: EPA 625								
Phenanthrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	85-01-8	
Phenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	108-95-2	
Pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	129-00-0	
1,2,4-Trichlorobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 02:04	120-82-1	
2,4,6-Trichlorophenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 02:04	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	73 %		10-120	1	02/20/14 13:00	02/28/14 02:04	4165-60-0	
2-Fluorobiphenyl (S)	76 %		15-120	1	02/20/14 13:00	02/28/14 02:04	321-60-8	
Terphenyl-d14 (S)	99 %		11-131	1	02/20/14 13:00	02/28/14 02:04	1718-51-0	
Phenol-d6 (S)	34 %		10-120	1	02/20/14 13:00	02/28/14 02:04	13127-88-3	
2-Fluorophenol (S)	47 %		10-120	1	02/20/14 13:00	02/28/14 02:04	367-12-4	
2,4,6-Tribromophenol (S)	98 %		10-137	1	02/20/14 13:00	02/28/14 02:04	118-79-6	
6200B MSV								
Analytical Method: SM 6200B								
Benzene	ND ug/L		0.50	1		02/26/14 20:59	71-43-2	
Bromobenzene	ND ug/L		0.50	1		02/26/14 20:59	108-86-1	
Bromochloromethane	ND ug/L		0.50	1		02/26/14 20:59	74-97-5	
Bromodichloromethane	ND ug/L		0.50	1		02/26/14 20:59	75-27-4	
Bromoform	ND ug/L		0.50	1		02/26/14 20:59	75-25-2	
Bromomethane	ND ug/L		5.0	1		02/26/14 20:59	74-83-9	
n-Butylbenzene	ND ug/L		0.50	1		02/26/14 20:59	104-51-8	
sec-Butylbenzene	ND ug/L		0.50	1		02/26/14 20:59	135-98-8	
tert-Butylbenzene	ND ug/L		0.50	1		02/26/14 20:59	98-06-6	
Carbon tetrachloride	ND ug/L		0.50	1		02/26/14 20:59	56-23-5	
Chlorobenzene	ND ug/L		0.50	1		02/26/14 20:59	108-90-7	
Chloroethane	ND ug/L		1.0	1		02/26/14 20:59	75-00-3	
Chloroform	ND ug/L		0.50	1		02/26/14 20:59	67-66-3	
Chloromethane	ND ug/L		1.0	1		02/26/14 20:59	74-87-3	
2-Chlorotoluene	ND ug/L		0.50	1		02/26/14 20:59	95-49-8	
4-Chlorotoluene	ND ug/L		0.50	1		02/26/14 20:59	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/L		1.0	1		02/26/14 20:59	96-12-8	
Dibromochloromethane	ND ug/L		0.50	1		02/26/14 20:59	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		0.50	1		02/26/14 20:59	106-93-4	
Dibromomethane	ND ug/L		0.50	1		02/26/14 20:59	74-95-3	
1,2-Dichlorobenzene	ND ug/L		0.50	1		02/26/14 20:59	95-50-1	
1,3-Dichlorobenzene	ND ug/L		0.50	1		02/26/14 20:59	541-73-1	
1,4-Dichlorobenzene	ND ug/L		0.50	1		02/26/14 20:59	106-46-7	
Dichlorodifluoromethane	ND ug/L		0.50	1		02/26/14 20:59	75-71-8	
1,1-Dichloroethane	ND ug/L		0.50	1		02/26/14 20:59	75-34-3	
1,2-Dichloroethane	ND ug/L		0.50	1		02/26/14 20:59	107-06-2	
1,1-Dichloroethene	ND ug/L		0.50	1		02/26/14 20:59	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		0.50	1		02/26/14 20:59	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		0.50	1		02/26/14 20:59	156-60-5	
1,2-Dichloropropane	ND ug/L		0.50	1		02/26/14 20:59	78-87-5	
1,3-Dichloropropane	ND ug/L		0.50	1		02/26/14 20:59	142-28-9	
2,2-Dichloropropane	ND ug/L		0.50	1		02/26/14 20:59	594-20-7	
1,1-Dichloropropene	ND ug/L		0.50	1		02/26/14 20:59	563-58-6	

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ANALYTICAL RESULTS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Sample: 25-3 (TW)		Lab ID: 92190306004	Collected: 02/18/14 09:45	Received: 02/19/14 17:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B						
cis-1,3-Dichloropropene	ND ug/L		0.50	1		02/26/14 20:59	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		0.50	1		02/26/14 20:59	10061-02-6	
Diisopropyl ether	ND ug/L		0.50	1		02/26/14 20:59	108-20-3	
Ethylbenzene	ND ug/L		0.50	1		02/26/14 20:59	100-41-4	
Hexachloro-1,3-butadiene	ND ug/L		2.0	1		02/26/14 20:59	87-68-3	
Isopropylbenzene (Cumene)	ND ug/L		0.50	1		02/26/14 20:59	98-82-8	
Methylene Chloride	ND ug/L		2.0	1		02/26/14 20:59	75-09-2	
Methyl-tert-butyl ether	ND ug/L		0.50	1		02/26/14 20:59	1634-04-4	
Naphthalene	ND ug/L		2.0	1		02/26/14 20:59	91-20-3	
n-Propylbenzene	ND ug/L		0.50	1		02/26/14 20:59	103-65-1	
Styrene	ND ug/L		0.50	1		02/26/14 20:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/L		0.50	1		02/26/14 20:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L		0.50	1		02/26/14 20:59	79-34-5	
Tetrachloroethene	ND ug/L		0.50	1		02/26/14 20:59	127-18-4	
Toluene	ND ug/L		0.50	1		02/26/14 20:59	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		2.0	1		02/26/14 20:59	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		2.0	1		02/26/14 20:59	120-82-1	
1,1,1-Trichloroethane	ND ug/L		0.50	1		02/26/14 20:59	71-55-6	
1,1,2-Trichloroethane	ND ug/L		0.50	1		02/26/14 20:59	79-00-5	
Trichloroethene	ND ug/L		0.50	1		02/26/14 20:59	79-01-6	
Trichlorofluoromethane	ND ug/L		1.0	1		02/26/14 20:59	75-69-4	
1,2,3-Trichloropropane	ND ug/L		0.50	1		02/26/14 20:59	96-18-4	
1,2,4-Trimethylbenzene	ND ug/L		0.50	1		02/26/14 20:59	95-63-6	
1,3,5-Trimethylbenzene	ND ug/L		0.50	1		02/26/14 20:59	108-67-8	
Vinyl chloride	ND ug/L		1.0	1		02/26/14 20:59	75-01-4	
m&p-Xylene	ND ug/L		1.0	1		02/26/14 20:59	179601-23-1	
o-Xylene	ND ug/L		0.50	1		02/26/14 20:59	95-47-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	103 %		70-130	1		02/26/14 20:59	17060-07-0	
4-Bromofluorobenzene (S)	96 %		70-130	1		02/26/14 20:59	460-00-4	
Toluene-d8 (S)	101 %		70-130	1		02/26/14 20:59	2037-26-5	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

QC Batch:	MSV/25905	Analysis Method:	SM 6200B
QC Batch Method:	SM 6200B	Analysis Description:	6200B MSV
Associated Lab Samples:	92190306004		

METHOD BLANK: 1145841 Matrix: Water

Associated Lab Samples: 92190306004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,1,1-Trichloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,1,2,2-Tetrachloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,1,2-Trichloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,1-Dichloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,1-Dichloroethene	ug/L	ND	0.50	02/26/14 18:47	
1,1-Dichloropropene	ug/L	ND	0.50	02/26/14 18:47	
1,2,3-Trichlorobenzene	ug/L	ND	2.0	02/26/14 18:47	
1,2,3-Trichloropropane	ug/L	ND	0.50	02/26/14 18:47	
1,2,4-Trichlorobenzene	ug/L	ND	2.0	02/26/14 18:47	
1,2,4-Trimethylbenzene	ug/L	ND	0.50	02/26/14 18:47	
1,2-Dibromo-3-chloropropane	ug/L	ND	1.0	02/26/14 18:47	
1,2-Dibromoethane (EDB)	ug/L	ND	0.50	02/26/14 18:47	
1,2-Dichlorobenzene	ug/L	ND	0.50	02/26/14 18:47	
1,2-Dichloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,2-Dichloropropane	ug/L	ND	0.50	02/26/14 18:47	
1,3,5-Trimethylbenzene	ug/L	ND	0.50	02/26/14 18:47	
1,3-Dichlorobenzene	ug/L	ND	0.50	02/26/14 18:47	
1,3-Dichloropropane	ug/L	ND	0.50	02/26/14 18:47	
1,4-Dichlorobenzene	ug/L	ND	0.50	02/26/14 18:47	
2,2-Dichloropropane	ug/L	ND	0.50	02/26/14 18:47	
2-Chlorotoluene	ug/L	ND	0.50	02/26/14 18:47	
4-Chlorotoluene	ug/L	ND	0.50	02/26/14 18:47	
Benzene	ug/L	ND	0.50	02/26/14 18:47	
Bromobenzene	ug/L	ND	0.50	02/26/14 18:47	
Bromochloromethane	ug/L	ND	0.50	02/26/14 18:47	
Bromodichloromethane	ug/L	ND	0.50	02/26/14 18:47	
Bromoform	ug/L	ND	0.50	02/26/14 18:47	
Bromomethane	ug/L	ND	5.0	02/26/14 18:47	
Carbon tetrachloride	ug/L	ND	0.50	02/26/14 18:47	
Chlorobenzene	ug/L	ND	0.50	02/26/14 18:47	
Chloroethane	ug/L	ND	1.0	02/26/14 18:47	
Chloroform	ug/L	ND	0.50	02/26/14 18:47	
Chloromethane	ug/L	ND	1.0	02/26/14 18:47	
cis-1,2-Dichloroethene	ug/L	ND	0.50	02/26/14 18:47	
cis-1,3-Dichloropropene	ug/L	ND	0.50	02/26/14 18:47	
Dibromochloromethane	ug/L	ND	0.50	02/26/14 18:47	
Dibromomethane	ug/L	ND	0.50	02/26/14 18:47	
Dichlorodifluoromethane	ug/L	ND	0.50	02/26/14 18:47	
Diisopropyl ether	ug/L	ND	0.50	02/26/14 18:47	
Ethylbenzene	ug/L	ND	0.50	02/26/14 18:47	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	02/26/14 18:47	
Isopropylbenzene (Cumene)	ug/L	ND	0.50	02/26/14 18:47	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

METHOD BLANK: 1145841

Matrix: Water

Associated Lab Samples: 92190306004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	1.0	02/26/14 18:47	
Methyl-tert-butyl ether	ug/L	ND	0.50	02/26/14 18:47	
Methylene Chloride	ug/L	ND	2.0	02/26/14 18:47	
n-Butylbenzene	ug/L	ND	0.50	02/26/14 18:47	
n-Propylbenzene	ug/L	ND	0.50	02/26/14 18:47	
Naphthalene	ug/L	ND	2.0	02/26/14 18:47	
o-Xylene	ug/L	ND	0.50	02/26/14 18:47	
sec-Butylbenzene	ug/L	ND	0.50	02/26/14 18:47	
Styrene	ug/L	ND	0.50	02/26/14 18:47	
tert-Butylbenzene	ug/L	ND	0.50	02/26/14 18:47	
Tetrachloroethene	ug/L	ND	0.50	02/26/14 18:47	
Toluene	ug/L	ND	0.50	02/26/14 18:47	
trans-1,2-Dichloroethene	ug/L	ND	0.50	02/26/14 18:47	
trans-1,3-Dichloropropene	ug/L	ND	0.50	02/26/14 18:47	
Trichloroethene	ug/L	ND	0.50	02/26/14 18:47	
Trichlorofluoromethane	ug/L	ND	1.0	02/26/14 18:47	
Vinyl chloride	ug/L	ND	1.0	02/26/14 18:47	
1,2-Dichloroethane-d4 (S)	%	101	70-130	02/26/14 18:47	
4-Bromofluorobenzene (S)	%	98	70-130	02/26/14 18:47	
Toluene-d8 (S)	%	101	70-130	02/26/14 18:47	

LABORATORY CONTROL SAMPLE: 1145842

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	49.0	98	60-140	
1,1,1-Trichloroethane	ug/L	50	53.7	107	60-140	
1,1,2,2-Tetrachloroethane	ug/L	50	50.2	100	60-140	
1,1,2-Trichloroethane	ug/L	50	52.9	106	60-140	
1,1-Dichloroethane	ug/L	50	49.2	98	60-140	
1,1-Dichloroethene	ug/L	50	48.0	96	60-140	
1,1-Dichloropropene	ug/L	50	51.3	103	60-140	
1,2,3-Trichlorobenzene	ug/L	50	49.1	98	60-140	
1,2,3-Trichloropropane	ug/L	50	49.8	100	60-140	
1,2,4-Trichlorobenzene	ug/L	50	49.1	98	60-140	
1,2,4-Trimethylbenzene	ug/L	50	51.4	103	60-140	
1,2-Dibromo-3-chloropropane	ug/L	50	64.7	129	60-140	
1,2-Dibromoethane (EDB)	ug/L	50	52.8	106	60-140	
1,2-Dichlorobenzene	ug/L	50	48.3	97	60-140	
1,2-Dichloroethane	ug/L	50	47.9	96	60-140	
1,2-Dichloropropane	ug/L	50	50.1	100	60-140	
1,3,5-Trimethylbenzene	ug/L	50	52.4	105	60-140	
1,3-Dichlorobenzene	ug/L	50	47.3	95	60-140	
1,3-Dichloropropane	ug/L	50	51.3	103	60-140	
1,4-Dichlorobenzene	ug/L	50	47.7	95	60-140	
2,2-Dichloropropane	ug/L	50	55.4	111	60-140	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

LABORATORY CONTROL SAMPLE: 1145842

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Chlorotoluene	ug/L	50	48.4	97	60-140	
4-Chlorotoluene	ug/L	50	49.8	100	60-140	
Benzene	ug/L	50	52.3	105	60-140	
Bromobenzene	ug/L	50	49.8	100	60-140	
Bromochloromethane	ug/L	50	52.0	104	60-140	
Bromodichloromethane	ug/L	50	55.3	111	60-140	
Bromoform	ug/L	50	44.8	90	60-140	
Bromomethane	ug/L	50	36.3	73	60-140	
Carbon tetrachloride	ug/L	50	46.6	93	60-140	
Chlorobenzene	ug/L	50	50.6	101	60-140	
Chloroethane	ug/L	50	48.7	97	60-140	
Chloroform	ug/L	50	51.2	102	60-140	
Chloromethane	ug/L	50	45.3	91	60-140	
cis-1,2-Dichloroethene	ug/L	50	48.1	96	60-140	
cis-1,3-Dichloropropene	ug/L	50	48.3	97	60-140	
Dibromochloromethane	ug/L	50	48.0	96	60-140	
Dibromomethane	ug/L	50	50.6	101	60-140	
Dichlorodifluoromethane	ug/L	50	38.5	77	60-140	
Diisopropyl ether	ug/L	50	50.4	101	60-140	
Ethylbenzene	ug/L	50	50.8	102	60-140	
Hexachloro-1,3-butadiene	ug/L	50	50.4	101	60-140	
Isopropylbenzene (Cumene)	ug/L	50	54.0	108	60-140	
m&p-Xylene	ug/L	100	105	105	60-140	
Methyl-tert-butyl ether	ug/L	50	50.5	101	60-140	
Methylene Chloride	ug/L	50	53.9	108	60-140	
n-Butylbenzene	ug/L	50	50.8	102	60-140	
n-Propylbenzene	ug/L	50	52.7	105	60-140	
Naphthalene	ug/L	50	49.0	98	60-140	
o-Xylene	ug/L	50	52.2	104	60-140	
sec-Butylbenzene	ug/L	50	52.1	104	60-140	
Styrene	ug/L	50	55.3	111	60-140	
tert-Butylbenzene	ug/L	50	51.8	104	60-140	
Tetrachloroethene	ug/L	50	51.2	102	60-140	
Toluene	ug/L	50	50.5	101	60-140	
trans-1,2-Dichloroethene	ug/L	50	46.7	93	60-140	
trans-1,3-Dichloropropene	ug/L	50	47.5	95	60-140	
Trichloroethene	ug/L	50	49.9	100	60-140	
Trichlorofluoromethane	ug/L	50	50.3	101	60-140	
Vinyl chloride	ug/L	50	48.4	97	60-140	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Parameter	92190689006		MS	MSD	1145843		1145844		% Rec	Limits	RPD	Qual
	Units	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	17.9	14.3	89	72	60-140	22		
1,1,1-Trichloroethane	ug/L	ND	20	20	21.3	17.1	106	85	60-140	22		
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	20.6	15.3	103	76	60-140	30		
1,1,2-Trichloroethane	ug/L	ND	20	20	21.3	16.5	107	83	60-140	25		
1,1-Dichloroethane	ug/L	ND	20	20	21.0	16.8	105	84	60-140	22		
1,1-Dichloroethene	ug/L	ND	20	20	20.2	16.8	101	84	60-140	19		
1,1-Dichloropropene	ug/L	ND	20	20	21.4	17.2	107	86	60-140	22		
1,2,3-Trichlorobenzene	ug/L	ND	20	20	17.4	14.0	87	70	60-140	22		
1,2,3-Trichloropropane	ug/L	ND	20	20	20.3	14.8	101	74	60-140	31	R1	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	17.4	14.0	87	70	60-140	22		
1,2,4-Trimethylbenzene	ug/L	ND	20	20	19.3	15.1	96	76	60-140	24		
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	22.5	16.2	113	81	60-140	32	R1	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	21.5	16.4	108	82	60-140	27		
1,2-Dichlorobenzene	ug/L	ND	20	20	18.2	14.2	91	71	60-140	24		
1,2-Dichloroethane	ug/L	2.4	20	20	23.0	18.1	103	79	60-140	24		
1,2-Dichloropropane	ug/L	ND	20	20	20.6	16.0	103	80	60-140	25		
1,3,5-Trimethylbenzene	ug/L	ND	20	20	19.5	15.5	97	77	60-140	23		
1,3-Dichlorobenzene	ug/L	ND	20	20	17.7	13.9	89	70	60-140	24		
1,3-Dichloropropane	ug/L	ND	20	20	21.2	16.2	106	81	60-140	26		
1,4-Dichlorobenzene	ug/L	ND	20	20	17.6	14.1	88	70	60-140	23		
2,2-Dichloropropane	ug/L	ND	20	20	18.8	15.5	94	78	60-140	19		
2-Chlorotoluene	ug/L	ND	20	20	18.7	14.9	94	74	60-140	23		
4-Chlorotoluene	ug/L	ND	20	20	19.0	14.9	95	74	60-140	24		
Benzene	ug/L	ND	20	20	20.7	16.6	104	83	60-140	22		
Bromobenzene	ug/L	ND	20	20	19.0	14.8	95	74	60-140	25		
Bromochloromethane	ug/L	ND	20	20	22.3	17.5	112	88	60-140	24		
Bromodichloromethane	ug/L	ND	20	20	19.5	15.6	98	78	60-140	22		
Bromoform	ug/L	ND	20	20	15.7	13.0	78	65	60-140	19		
Bromomethane	ug/L	ND	20	20	14.7	15.1	74	76	60-140	3		
Carbon tetrachloride	ug/L	ND	20	20	17.5	15.6	88	78	60-140	11		
Chlorobenzene	ug/L	ND	20	20	19.8	15.6	99	78	60-140	24		
Chloroethane	ug/L	ND	20	20	22.3	19.5	111	97	60-140	13		
Chloroform	ug/L	ND	20	20	21.3	16.7	106	83	60-140	24		
Chloromethane	ug/L	ND	20	20	18.5	17.8	93	89	60-140	4		
cis-1,2-Dichloroethene	ug/L	ND	20	20	20.4	16.2	102	81	60-140	23		
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.9	13.6	85	68	60-140	21		
Dibromochloromethane	ug/L	ND	20	20	17.2	13.8	86	69	60-140	22		
Dibromomethane	ug/L	ND	20	20	20.0	15.2	100	76	60-140	27		
Dichlorodifluoromethane	ug/L	ND	20	20	15.3	17.9	77	90	60-140	16		
Diisopropyl ether	ug/L	0.55	20	20	22.1	17.1	108	83	60-140	26		
Ethylbenzene	ug/L	ND	20	20	19.7	15.7	99	78	60-140	23		
Hexachloro-1,3-butadiene	ug/L	ND	20	20	17.6	14.2	88	71	60-140	21		
Isopropylbenzene (Cumene)	ug/L	ND	20	20	20.5	16.2	102	81	60-140	23		
m&p-Xylene	ug/L	ND	40	40	39.0	31.5	97	79	60-140	21		
Methyl-tert-butyl ether	ug/L	6.6	20	20	28.2	22.8	108	81	60-140	21		
Methylene Chloride	ug/L	ND	20	20	21.6	16.0	108	80	60-140	30		
n-Butylbenzene	ug/L	ND	20	20	17.8	14.6	89	73	60-140	20		

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Parameter	Units	1145843		1145844		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		92190689006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
n-Propylbenzene	ug/L	ND	20	20	19.8	15.8	99	79	60-140	23		
Naphthalene	ug/L	ND	20	20	18.6	14.2	93	71	60-140	27		
o-Xylene	ug/L	ND	20	20	20.0	15.8	100	79	60-140	24		
sec-Butylbenzene	ug/L	ND	20	20	19.4	15.7	97	78	60-140	21		
Styrene	ug/L	ND	20	20	20.8	16.2	104	81	60-140	25		
tert-Butylbenzene	ug/L	ND	20	20	19.4	15.6	97	78	60-140	22		
Tetrachloroethene	ug/L	ND	20	20	19.9	16.1	99	81	60-140	21		
Toluene	ug/L	ND	20	20	19.7	15.8	99	79	60-140	22		
trans-1,2-Dichloroethene	ug/L	ND	20	20	19.3	15.6	97	78	60-140	21		
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.9	13.6	85	68	60-140	21		
Trichloroethene	ug/L	ND	20	20	19.3	15.3	96	77	60-140	23		
Trichlorofluoromethane	ug/L	ND	20	20	21.3	18.2	106	91	60-140	15		
Vinyl chloride	ug/L	ND	20	20	20.1	18.6	101	93	60-140	8		
1,2-Dichloroethane-d4 (S)	%						101	100	70-130			
4-Bromofluorobenzene (S)	%						100	100	70-130			
Toluene-d8 (S)	%						100	100	70-130			

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

QC Batch: MSV/25854 Analysis Method: EPA 8260
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
 Associated Lab Samples: 92190306001, 92190306002, 92190306003

METHOD BLANK: 1142401 Matrix: Solid

Associated Lab Samples: 92190306001, 92190306002, 92190306003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.6	02/21/14 11:54	
1,1,1-Trichloroethane	ug/kg	ND	5.6	02/21/14 11:54	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.6	02/21/14 11:54	
1,1,2-Trichloroethane	ug/kg	ND	5.6	02/21/14 11:54	
1,1-Dichloroethane	ug/kg	ND	5.6	02/21/14 11:54	
1,1-Dichloroethene	ug/kg	ND	5.6	02/21/14 11:54	
1,1-Dichloropropene	ug/kg	ND	5.6	02/21/14 11:54	
1,2,3-Trichlorobenzene	ug/kg	ND	5.6	02/21/14 11:54	
1,2,3-Trichloropropane	ug/kg	ND	5.6	02/21/14 11:54	
1,2,4-Trichlorobenzene	ug/kg	ND	5.6	02/21/14 11:54	
1,2,4-Trimethylbenzene	ug/kg	ND	5.6	02/21/14 11:54	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.6	02/21/14 11:54	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.6	02/21/14 11:54	
1,2-Dichlorobenzene	ug/kg	ND	5.6	02/21/14 11:54	
1,2-Dichloroethane	ug/kg	ND	5.6	02/21/14 11:54	
1,2-Dichloropropane	ug/kg	ND	5.6	02/21/14 11:54	
1,3,5-Trimethylbenzene	ug/kg	ND	5.6	02/21/14 11:54	
1,3-Dichlorobenzene	ug/kg	ND	5.6	02/21/14 11:54	
1,3-Dichloropropane	ug/kg	ND	5.6	02/21/14 11:54	
1,4-Dichlorobenzene	ug/kg	ND	5.6	02/21/14 11:54	
2,2-Dichloropropane	ug/kg	ND	5.6	02/21/14 11:54	
2-Butanone (MEK)	ug/kg	ND	111	02/21/14 11:54	
2-Chlorotoluene	ug/kg	ND	5.6	02/21/14 11:54	
2-Hexanone	ug/kg	ND	55.6	02/21/14 11:54	
4-Chlorotoluene	ug/kg	ND	5.6	02/21/14 11:54	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	55.6	02/21/14 11:54	
Acetone	ug/kg	ND	111	02/21/14 11:54	
Benzene	ug/kg	ND	5.6	02/21/14 11:54	
Bromobenzene	ug/kg	ND	5.6	02/21/14 11:54	
Bromochloromethane	ug/kg	ND	5.6	02/21/14 11:54	
Bromodichloromethane	ug/kg	ND	5.6	02/21/14 11:54	
Bromoform	ug/kg	ND	5.6	02/21/14 11:54	
Bromomethane	ug/kg	ND	11.1	02/21/14 11:54	
Carbon tetrachloride	ug/kg	ND	5.6	02/21/14 11:54	
Chlorobenzene	ug/kg	ND	5.6	02/21/14 11:54	
Chloroethane	ug/kg	ND	11.1	02/21/14 11:54	
Chloroform	ug/kg	ND	5.6	02/21/14 11:54	
Chloromethane	ug/kg	ND	11.1	02/21/14 11:54	
cis-1,2-Dichloroethene	ug/kg	ND	5.6	02/21/14 11:54	
cis-1,3-Dichloropropene	ug/kg	ND	5.6	02/21/14 11:54	
Dibromochloromethane	ug/kg	ND	5.6	02/21/14 11:54	
Dibromomethane	ug/kg	ND	5.6	02/21/14 11:54	
Dichlorodifluoromethane	ug/kg	ND	11.1	02/21/14 11:54	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

METHOD BLANK: 1142401

Matrix: Solid

Associated Lab Samples: 92190306001, 92190306002, 92190306003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	ND	5.6	02/21/14 11:54	
Ethylbenzene	ug/kg	ND	5.6	02/21/14 11:54	
Hexachloro-1,3-butadiene	ug/kg	ND	5.6	02/21/14 11:54	
Isopropylbenzene (Cumene)	ug/kg	ND	5.6	02/21/14 11:54	
m&p-Xylene	ug/kg	ND	11.1	02/21/14 11:54	
Methyl-tert-butyl ether	ug/kg	ND	5.6	02/21/14 11:54	
Methylene Chloride	ug/kg	ND	22.2	02/21/14 11:54	
n-Butylbenzene	ug/kg	ND	5.6	02/21/14 11:54	
n-Propylbenzene	ug/kg	ND	5.6	02/21/14 11:54	
Naphthalene	ug/kg	ND	5.6	02/21/14 11:54	
o-Xylene	ug/kg	ND	5.6	02/21/14 11:54	
p-Isopropyltoluene	ug/kg	ND	5.6	02/21/14 11:54	
sec-Butylbenzene	ug/kg	ND	5.6	02/21/14 11:54	
Styrene	ug/kg	ND	5.6	02/21/14 11:54	
tert-Butylbenzene	ug/kg	ND	5.6	02/21/14 11:54	
Tetrachloroethene	ug/kg	ND	5.6	02/21/14 11:54	
Toluene	ug/kg	ND	5.6	02/21/14 11:54	
trans-1,2-Dichloroethene	ug/kg	ND	5.6	02/21/14 11:54	
trans-1,3-Dichloropropene	ug/kg	ND	5.6	02/21/14 11:54	
Trichloroethene	ug/kg	ND	5.6	02/21/14 11:54	
Trichlorofluoromethane	ug/kg	ND	5.6	02/21/14 11:54	
Vinyl acetate	ug/kg	ND	55.6	02/21/14 11:54	
Vinyl chloride	ug/kg	ND	11.1	02/21/14 11:54	
Xylene (Total)	ug/kg	ND	11.1	02/21/14 11:54	
1,2-Dichloroethane-d4 (S)	%	97	70-132	02/21/14 11:54	
4-Bromofluorobenzene (S)	%	87	70-130	02/21/14 11:54	
Toluene-d8 (S)	%	97	70-130	02/21/14 11:54	

LABORATORY CONTROL SAMPLE: 1142402

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	48.6	48.6	100	70-131	
1,1,1-Trichloroethane	ug/kg	48.6	52.4	108	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	48.6	49.7	102	70-130	
1,1,2-Trichloroethane	ug/kg	48.6	48.9	101	70-132	
1,1-Dichloroethane	ug/kg	48.6	50.9	105	70-143	
1,1-Dichloroethene	ug/kg	48.6	51.6	106	70-137	
1,1-Dichloropropene	ug/kg	48.6	55.3	114	70-135	
1,2,3-Trichlorobenzene	ug/kg	48.6	54.8	113	69-153	
1,2,3-Trichloropropane	ug/kg	48.6	48.3	99	70-130	
1,2,4-Trichlorobenzene	ug/kg	48.6	55.9	115	55-171	
1,2,4-Trimethylbenzene	ug/kg	48.6	55.6	114	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	48.6	49.2	101	68-141	
1,2-Dibromoethane (EDB)	ug/kg	48.6	51.7	106	70-130	
1,2-Dichlorobenzene	ug/kg	48.6	50.2	103	70-140	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

LABORATORY CONTROL SAMPLE: 1142402

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/kg	48.6	46.5	96	70-137	
1,2-Dichloropropane	ug/kg	48.6	49.5	102	70-133	
1,3,5-Trimethylbenzene	ug/kg	48.6	53.8	111	70-143	
1,3-Dichlorobenzene	ug/kg	48.6	48.8	100	70-144	
1,3-Dichloropropane	ug/kg	48.6	49.8	102	70-132	
1,4-Dichlorobenzene	ug/kg	48.6	50.1	103	70-142	
2,2-Dichloropropane	ug/kg	48.6	54.6	112	68-152	
2-Butanone (MEK)	ug/kg	97.3	112	115	70-149	
2-Chlorotoluene	ug/kg	48.6	51.4	106	70-141	
2-Hexanone	ug/kg	97.3	105	108	70-149	
4-Chlorotoluene	ug/kg	48.6	51.5	106	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	97.3	100	103	70-153	
Acetone	ug/kg	97.3	112	115	70-157	
Benzene	ug/kg	48.6	52.0	107	70-130	
Bromobenzene	ug/kg	48.6	49.5	102	70-141	
Bromochloromethane	ug/kg	48.6	51.4	106	70-149	
Bromodichloromethane	ug/kg	48.6	48.0	99	70-130	
Bromoform	ug/kg	48.6	48.2	99	70-131	
Bromomethane	ug/kg	48.6	67.1	138	64-136 L3	
Carbon tetrachloride	ug/kg	48.6	47.1	97	70-154	
Chlorobenzene	ug/kg	48.6	47.5	98	70-135	
Chloroethane	ug/kg	48.6	51.1	105	68-151	
Chloroform	ug/kg	48.6	50.3	103	70-130	
Chloromethane	ug/kg	48.6	50.8	104	70-132	
cis-1,2-Dichloroethene	ug/kg	48.6	50.6	104	70-140	
cis-1,3-Dichloropropene	ug/kg	48.6	49.8	102	70-137	
Dibromochloromethane	ug/kg	48.6	47.7	98	70-130	
Dibromomethane	ug/kg	48.6	48.3	99	70-136	
Dichlorodifluoromethane	ug/kg	48.6	56.6	116	36-148	
Diisopropyl ether	ug/kg	48.6	51.8	107	70-139	
Ethylbenzene	ug/kg	48.6	50.0	103	70-137	
Hexachloro-1,3-butadiene	ug/kg	48.6	45.4	93	70-145	
Isopropylbenzene (Cumene)	ug/kg	48.6	52.5	108	70-141	
m&p-Xylene	ug/kg	97.3	102	105	70-140	
Methyl-tert-butyl ether	ug/kg	48.6	53.8	111	45-150	
Methylene Chloride	ug/kg	48.6	71.0	146	70-133 L3	
n-Butylbenzene	ug/kg	48.6	59.2	122	65-155	
n-Propylbenzene	ug/kg	48.6	54.0	111	70-148	
Naphthalene	ug/kg	48.6	70.6	145	70-148	
o-Xylene	ug/kg	48.6	50.4	104	70-141	
p-Isopropyltoluene	ug/kg	48.6	54.5	112	70-148	
sec-Butylbenzene	ug/kg	48.6	53.8	111	70-145	
Styrene	ug/kg	48.6	51.4	106	70-138	
tert-Butylbenzene	ug/kg	48.6	49.8	102	70-143	
Tetrachloroethene	ug/kg	48.6	48.2	99	70-140	
Toluene	ug/kg	48.6	48.7	100	70-130	
trans-1,2-Dichloroethene	ug/kg	48.6	52.0	107	70-136	
trans-1,3-Dichloropropene	ug/kg	48.6	48.8	100	70-138	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25
Pace Project No.: 92190306

LABORATORY CONTROL SAMPLE: 1142402

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/kg	48.6	48.6	100	70-132	
Trichlorofluoromethane	ug/kg	48.6	55.0	113	69-134	
Vinyl acetate	ug/kg	97.3	142	146	24-161	
Vinyl chloride	ug/kg	48.6	58.3	120	55-140	
Xylene (Total)	ug/kg	146	153	105	70-141	
1,2-Dichloroethane-d4 (S)	%			105	70-132	
4-Bromofluorobenzene (S)	%			90	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1143259

Parameter	Units	92190305005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg		ND	34.6	37.0	107	49-180
Benzene	ug/kg		ND	34.6	32.4	94	50-166
Chlorobenzene	ug/kg		ND	34.6	21.3	62	43-169
Toluene	ug/kg		ND	34.6	27.4	79	52-163
Trichloroethene	ug/kg		ND	34.6	29.5	85	49-167
1,2-Dichloroethane-d4 (S)	%					89	70-132
4-Bromofluorobenzene (S)	%					83	70-130
Toluene-d8 (S)	%					104	70-130

SAMPLE DUPLICATE: 1143258

Parameter	Units	92190181001 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,1-Trichloroethane	ug/kg	ND	ND		
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,2-Trichloroethane	ug/kg	ND	ND		
1,1-Dichloroethane	ug/kg	ND	ND		
1,1-Dichloroethene	ug/kg	ND	ND		
1,1-Dichloropropene	ug/kg	ND	ND		
1,2,3-Trichlorobenzene	ug/kg	ND	ND		
1,2,3-Trichloropropane	ug/kg	ND	ND		
1,2,4-Trichlorobenzene	ug/kg	ND	ND		
1,2,4-Trimethylbenzene	ug/kg	ND	ND		
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		
1,2-Dichlorobenzene	ug/kg	ND	ND		
1,2-Dichloroethane	ug/kg	ND	ND		
1,2-Dichloropropane	ug/kg	ND	ND		
1,3,5-Trimethylbenzene	ug/kg	ND	ND		
1,3-Dichlorobenzene	ug/kg	ND	ND		
1,3-Dichloropropane	ug/kg	ND	ND		
1,4-Dichlorobenzene	ug/kg	ND	ND		
2,2-Dichloropropane	ug/kg	ND	ND		

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

SAMPLE DUPLICATE: 1143258

Parameter	Units	92190181001 Result	Dup Result	RPD	Qualifiers
2-Butanone (MEK)	ug/kg	ND	ND		
2-Chlorotoluene	ug/kg	ND	ND		
2-Hexanone	ug/kg	ND	ND		
4-Chlorotoluene	ug/kg	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		
Acetone	ug/kg	12.2J	ND		
Benzene	ug/kg	ND	ND		
Bromobenzene	ug/kg	ND	ND		
Bromochloromethane	ug/kg	ND	ND		
Bromodichloromethane	ug/kg	ND	ND		
Bromoform	ug/kg	ND	ND		
Bromomethane	ug/kg	ND	ND		
Carbon tetrachloride	ug/kg	ND	ND		
Chlorobenzene	ug/kg	ND	ND		
Chloroethane	ug/kg	ND	ND		
Chloroform	ug/kg	ND	ND		
Chloromethane	ug/kg	ND	ND		
cis-1,2-Dichloroethene	ug/kg	ND	ND		
cis-1,3-Dichloropropene	ug/kg	ND	ND		
Dibromochloromethane	ug/kg	ND	ND		
Dibromomethane	ug/kg	ND	ND		
Dichlorodifluoromethane	ug/kg	ND	ND		
Diisopropyl ether	ug/kg	ND	ND		
Ethylbenzene	ug/kg	ND	ND		
Hexachloro-1,3-butadiene	ug/kg	ND	ND		
Isopropylbenzene (Cumene)	ug/kg	ND	ND		
m&p-Xylene	ug/kg	ND	ND		
Methyl-tert-butyl ether	ug/kg	ND	ND		
Methylene Chloride	ug/kg	ND	ND		
n-Butylbenzene	ug/kg	ND	ND		
n-Propylbenzene	ug/kg	ND	ND		
Naphthalene	ug/kg	ND	ND		
o-Xylene	ug/kg	ND	ND		
p-Isopropyltoluene	ug/kg	ND	ND		
sec-Butylbenzene	ug/kg	ND	ND		
Styrene	ug/kg	ND	ND		
tert-Butylbenzene	ug/kg	ND	ND		
Tetrachloroethene	ug/kg	ND	ND		
Toluene	ug/kg	ND	ND		
trans-1,2-Dichloroethene	ug/kg	ND	ND		
trans-1,3-Dichloropropene	ug/kg	ND	ND		
Trichloroethene	ug/kg	ND	ND		
Trichlorofluoromethane	ug/kg	ND	ND		
Vinyl acetate	ug/kg	ND	ND		
Vinyl chloride	ug/kg	ND	ND		
Xylene (Total)	ug/kg	ND	ND		
1,2-Dichloroethane-d4 (S)	%	131	79	54	
4-Bromofluorobenzene (S)	%	89	94	1	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25
Pace Project No.: 92190306

SAMPLE DUPLICATE: 1143258

Parameter	Units	92190181001 Result	Dup Result	RPD	Qualifiers
Toluene-d8 (S)	%	94	110	12	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

QC Batch:	OEXT/26010	Analysis Method:	EPA 625
QC Batch Method:	EPA 625	Analysis Description:	625 MSS
Associated Lab Samples:	92190306004		

METHOD BLANK: 1141550 Matrix: Water

Associated Lab Samples: 92190306004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	5.0	02/28/14 07:26	
2,4,6-Trichlorophenol	ug/L	ND	10.0	02/28/14 07:26	
2,4-Dichlorophenol	ug/L	ND	5.0	02/28/14 07:26	
2,4-Dimethylphenol	ug/L	ND	10.0	02/28/14 07:26	
2,4-Dinitrophenol	ug/L	ND	50.0	02/28/14 07:26	
2,4-Dinitrotoluene	ug/L	ND	5.0	02/28/14 07:26	
2,6-Dinitrotoluene	ug/L	ND	5.0	02/28/14 07:26	
2-Chloronaphthalene	ug/L	ND	5.0	02/28/14 07:26	
2-Chlorophenol	ug/L	ND	5.0	02/28/14 07:26	
2-Nitrophenol	ug/L	ND	5.0	02/28/14 07:26	
3,3'-Dichlorobenzidine	ug/L	ND	25.0	02/28/14 07:26	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	02/28/14 07:26	
4-Bromophenylphenyl ether	ug/L	ND	5.0	02/28/14 07:26	
4-Chloro-3-methylphenol	ug/L	ND	5.0	02/28/14 07:26	
4-Chlorophenylphenyl ether	ug/L	ND	5.0	02/28/14 07:26	
4-Nitrophenol	ug/L	ND	50.0	02/28/14 07:26	
Acenaphthene	ug/L	ND	5.0	02/28/14 07:26	
Acenaphthylene	ug/L	ND	5.0	02/28/14 07:26	
Anthracene	ug/L	ND	5.0	02/28/14 07:26	
Benzo(a)anthracene	ug/L	ND	5.0	02/28/14 07:26	
Benzo(a)pyrene	ug/L	ND	5.0	02/28/14 07:26	
Benzo(b)fluoranthene	ug/L	ND	5.0	02/28/14 07:26	
Benzo(g,h,i)perylene	ug/L	ND	5.0	02/28/14 07:26	
Benzo(k)fluoranthene	ug/L	ND	5.0	02/28/14 07:26	
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	02/28/14 07:26	
bis(2-Chloroethyl) ether	ug/L	ND	5.0	02/28/14 07:26	
bis(2-Chloroisopropyl) ether	ug/L	ND	5.0	02/28/14 07:26	
bis(2-Ethylhexyl)phthalate	ug/L	ND	5.0	02/28/14 07:26	
Butylbenzylphthalate	ug/L	ND	5.0	02/28/14 07:26	
Chrysene	ug/L	ND	5.0	02/28/14 07:26	
Di-n-butylphthalate	ug/L	ND	5.0	02/28/14 07:26	
Di-n-octylphthalate	ug/L	ND	5.0	02/28/14 07:26	
Dibenz(a,h)anthracene	ug/L	ND	5.0	02/28/14 07:26	
Diethylphthalate	ug/L	ND	5.0	02/28/14 07:26	
Dimethylphthalate	ug/L	ND	5.0	02/28/14 07:26	
Fluoranthene	ug/L	ND	5.0	02/28/14 07:26	
Fluorene	ug/L	ND	5.0	02/28/14 07:26	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	02/28/14 07:26	
Hexachlorobenzene	ug/L	ND	5.0	02/28/14 07:26	
Hexachlorocyclopentadiene	ug/L	ND	10.0	02/28/14 07:26	
Hexachloroethane	ug/L	ND	5.0	02/28/14 07:26	
Indeno(1,2,3-cd)pyrene	ug/L	ND	5.0	02/28/14 07:26	
Isophorone	ug/L	ND	10.0	02/28/14 07:26	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

METHOD BLANK: 1141550

Matrix: Water

Associated Lab Samples: 92190306004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
N-Nitroso-di-n-propylamine	ug/L	ND	5.0	02/28/14 07:26	
N-Nitrosodimethylamine	ug/L	ND	5.0	02/28/14 07:26	
N-Nitrosodiphenylamine	ug/L	ND	10.0	02/28/14 07:26	
Naphthalene	ug/L	ND	5.0	02/28/14 07:26	
Nitrobenzene	ug/L	ND	5.0	02/28/14 07:26	
Pentachlorophenol	ug/L	ND	10.0	02/28/14 07:26	
Phenanthrene	ug/L	ND	5.0	02/28/14 07:26	
Phenol	ug/L	ND	5.0	02/28/14 07:26	
Pyrene	ug/L	ND	5.0	02/28/14 07:26	
2,4,6-Tribromophenol (S)	%	88	10-137	02/28/14 07:26	
2-Fluorobiphenyl (S)	%	74	15-120	02/28/14 07:26	
2-Fluorophenol (S)	%	46	10-120	02/28/14 07:26	
Nitrobenzene-d5 (S)	%	73	10-120	02/28/14 07:26	
Phenol-d6 (S)	%	33	10-120	02/28/14 07:26	
Terphenyl-d14 (S)	%	99	11-131	02/28/14 07:26	

LABORATORY CONTROL SAMPLE: 1141551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	36.0	72	44-142	
2,4,6-Trichlorophenol	ug/L	50	19.6	39	37-144	
2,4-Dichlorophenol	ug/L	50	23.9	48	1-191	
2,4-Dimethylphenol	ug/L	50	31.7	63	32-119	
2,4-Dinitrophenol	ug/L	250	49.5J	20	1-181	
2,4-Dinitrotoluene	ug/L	50	54.3	109	39-139	
2,6-Dinitrotoluene	ug/L	50	51.3	103	50-158	
2-Chloronaphthalene	ug/L	50	34.2	68	60-118	
2-Chlorophenol	ug/L	50	23.6	47	23-134	
2-Nitrophenol	ug/L	50	20.8	42	29-182	
3,3'-Dichlorobenzidine	ug/L	100	107	107	1-262	
4,6-Dinitro-2-methylphenol	ug/L	100	34.2	34	1-181	
4-Bromophenylphenyl ether	ug/L	50	44.3	89	53-127	
4-Chloro-3-methylphenol	ug/L	100	59.7	60	22-147	
4-Chlorophenylphenyl ether	ug/L	50	48.4	97	25-158	
4-Nitrophenol	ug/L	250	48.6J	19	1-132	
Acenaphthene	ug/L	50	40.8	82	47-145	
Acenaphthylene	ug/L	50	42.0	84	33-145	
Anthracene	ug/L	50	46.2	92	1-166	
Benzo(a)anthracene	ug/L	50	45.7	91	33-143	
Benzo(a)pyrene	ug/L	50	49.2	98	17-163	
Benzo(b)fluoranthene	ug/L	50	44.9	90	24-159	
Benzo(g,h,i)perylene	ug/L	50	45.0	90	1-219	
Benzo(k)fluoranthene	ug/L	50	41.4	83	11-162	
bis(2-Chloroethoxy)methane	ug/L	50	41.6	83	33-184	
bis(2-Chloroethyl) ether	ug/L	50	44.4	89	12-158	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

LABORATORY CONTROL SAMPLE: 1141551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
bis(2-Chloroisopropyl) ether	ug/L	50	44.1	88	36-166	
bis(2-Ethylhexyl)phthalate	ug/L	50	47.1	94	8-158	
Butylbenzylphthalate	ug/L	50	45.3	91	1-152	
Chrysene	ug/L	50	47.2	94	17-168	
Di-n-butylphthalate	ug/L	50	45.1	90	1-118	
Di-n-octylphthalate	ug/L	50	54.2	108	4-146	
Dibenz(a,h)anthracene	ug/L	50	49.3	99	1-227	
Diethylphthalate	ug/L	50	45.5	91	1-114	
Dimethylphthalate	ug/L	50	41.6	83	1-112	
Fluoranthene	ug/L	50	50.5	101	26-137	
Fluorene	ug/L	50	47.8	96	59-121	
Hexachloro-1,3-butadiene	ug/L	50	32.1	64	24-116	
Hexachlorobenzene	ug/L	50	40.0	80	1-152	
Hexachlorocyclopentadiene	ug/L	50	25.9	52	25-150	
Hexachloroethane	ug/L	50	33.9	68	40-113	
Indeno(1,2,3-cd)pyrene	ug/L	50	48.5	97	1-171	
Isophorone	ug/L	50	48.3	97	21-196	
N-Nitroso-di-n-propylamine	ug/L	50	51.2	102	1-230	
N-Nitrosodimethylamine	ug/L	50	18.9	38	25-150	
N-Nitrosodiphenylamine	ug/L	50	34.8	70	25-150	
Naphthalene	ug/L	50	41.5	83	21-133	
Nitrobenzene	ug/L	50	39.1	78	35-180	
Pentachlorophenol	ug/L	100	39.6	40	14-176	
Phenanthrene	ug/L	50	44.9	90	54-120	
Phenol	ug/L	50	15.0	30	5-112	
Pyrene	ug/L	50	47.2	94	52-115	
2,4,6-Tribromophenol (S)	%			58	10-137	
2-Fluorobiphenyl (S)	%			75	15-120	
2-Fluorophenol (S)	%			25	10-120	
Nitrobenzene-d5 (S)	%			73	10-120	
Phenol-d6 (S)	%			22	10-120	
Terphenyl-d14 (S)	%			94	11-131	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1141552 1141553

Parameter	Units	92190065001		MS	MSD	MS	MSD	MS	MSD	% Rec	RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits		
1,2,4-Trichlorobenzene	ug/L	ND	100	100	100	78.9	64.5	79	65	44-142	20	
2,4,6-Trichlorophenol	ug/L	ND	100	100	100	87.6	77.0	88	77	37-144	13	
2,4-Dichlorophenol	ug/L	ND	100	100	100	106	84.4	106	84	1-191	23	
2,4-Dimethylphenol	ug/L	ND	100	100	100	73.8	48.8	74	49	32-119	41	R1
2,4-Dinitrophenol	ug/L	ND	500	500	500	263	286	53	57	1-181	9	
2,4-Dinitrotoluene	ug/L	ND	100	100	100	105	95.2	105	95	39-139	10	
2,6-Dinitrotoluene	ug/L	ND	100	100	100	105	97.3	105	97	50-158	7	
2-Chloronaphthalene	ug/L	ND	100	100	100	76.9	64.0	77	64	60-118	18	
2-Chlorophenol	ug/L	ND	100	100	100	114	78.3	114	78	23-134	37	R1
2-Nitrophenol	ug/L	ND	100	100	100	94.9	74.9	95	75	29-182	24	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Parameter	1141552			1141553			MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
	92190065001 Units	MS Spike Result	MSD Spike Conc.	MS Result	MSD Result	MSD Conc.					
3,3'-Dichlorobenzidine	ug/L	ND	200	200	115	124	58	62	1-262	7	
4,6-Dinitro-2-methylphenol	ug/L	ND	200	200	156	152	78	76	1-181	3	
4-Bromophenylphenyl ether	ug/L	ND	100	100	95.3	87.4	95	87	53-127	9	
4-Chloro-3-methylphenol	ug/L	ND	200	200	218	191	109	96	22-147	13	
4-Chlorophenylphenyl ether	ug/L	ND	100	100	98.1	89.0	98	89	25-158	10	
4-Nitrophenol	ug/L	ND	500	500	272	225	54	45	1-132	19	
Acenaphthene	ug/L	ND	100	100	88.4	75.5	88	76	47-145	16	
Acenaphthylene	ug/L	ND	100	100	91.1	77.9	91	78	33-145	16	
Anthracene	ug/L	ND	100	100	93.0	81.8	93	82	1-166	13	
Benzo(a)anthracene	ug/L	ND	100	100	90.0	83.6	90	84	33-143	7	
Benzo(a)pyrene	ug/L	ND	100	100	96.2	87.6	96	88	17-163	9	
Benzo(b)fluoranthene	ug/L	ND	100	100	94.0	86.8	94	87	24-159	8	
Benzo(g,h,i)perylene	ug/L	ND	100	100	89.4	78.4	89	78	1-219	13	
Benzo(k)fluoranthene	ug/L	ND	100	100	84.7	79.4	85	79	11-162	6	
bis(2-Chloroethoxy)methane	ug/L	ND	100	100	92.3	74.8	92	75	33-184	21	
bis(2-Chloroethyl) ether	ug/L	ND	100	100	97.6	78.5	98	78	12-158	22	
bis(2-Chloroisopropyl) ether	ug/L	ND	100	100	97.2	70.9	97	71	36-166	31	R1
bis(2-Ethylhexyl)phthalate	ug/L	ND	100	100	90.9	86.0	91	86	8-158	5	
Butylbenzylphthalate	ug/L	ND	100	100	89.1	86.1	89	86	1-152	3	
Chrysene	ug/L	ND	100	100	93.5	88.6	94	89	17-168	5	
Di-n-butylphthalate	ug/L	ND	100	100	87.5	79.7	88	80	1-118	9	
Di-n-octylphthalate	ug/L	ND	100	100	101	91.7	101	92	4-146	10	
Dibenz(a,h)anthracene	ug/L	ND	100	100	96.1	85.8	96	86	1-227	11	
Diethylphthalate	ug/L	ND	100	100	86.6	80.4	87	80	1-114	7	
Dimethylphthalate	ug/L	ND	100	100	84.2	79.0	84	79	1-112	6	
Fluoranthene	ug/L	ND	100	100	97.9	82.5	98	82	26-137	17	
Fluorene	ug/L	ND	100	100	95.9	86.7	96	87	59-121	10	
Hexachloro-1,3-butadiene	ug/L	ND	100	100	67.7	57.7	68	58	24-116	16	
Hexachlorobenzene	ug/L	ND	100	100	83.7	76.0	84	76	1-152	10	
Hexachlorocyclopentadiene	ug/L	ND	100	100	67.6	53.4	68	53	25-150	24	
Hexachloroethane	ug/L	ND	100	100	69.9	54.7	70	55	40-113	24	
Indeno(1,2,3-cd)pyrene	ug/L	ND	100	100	95.7	84.4	96	84	1-171	13	
Isophorone	ug/L	ND	100	100	104	84.1	104	84	21-196	21	
N-Nitroso-di-n-propylamine	ug/L	ND	100	100	124	74.2	124	74	1-230	50	R1
N-Nitrosodimethylamine	ug/L	ND	100	100	55.1	44.2	55	44	25-150	22	
N-Nitrosodiphenylamine	ug/L	ND	100	100	76.3	70.5	76	70	25-150	8	
Naphthalene	ug/L	ND	100	100	91.5	73.2	92	73	21-133	22	
Nitrobenzene	ug/L	ND	100	100	96.7	75.6	97	76	35-180	24	
Pentachlorophenol	ug/L	ND	200	200	168	139	84	70	14-176	19	
Phenanthrene	ug/L	ND	100	100	92.6	82.6	93	83	54-120	11	
Phenol	ug/L	ND	100	100	91.8	53.4	92	53	5-112	53	R1
Pyrene	ug/L	ND	100	100	97.9	93.6	98	94	52-115	4	
2,4,6-Tribromophenol (S)	%						107	95	10-137		
2-Fluorobiphenyl (S)	%						84	74	15-120		
2-Fluorophenol (S)	%						71	55	10-120		
Nitrobenzene-d5 (S)	%						82	68	10-120		
Phenol-d6 (S)	%						84	50	10-120		

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1141552		1141553							
Parameter	Units	92190065001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Terphenyl-d14 (S)	%						98	99	11-131		

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

QC Batch: OEXT/26001 Analysis Method: EPA 8270
 QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave
 Associated Lab Samples: 92190306001, 92190306002, 92190306003

METHOD BLANK: 1141134 Matrix: Solid

Associated Lab Samples: 92190306001, 92190306002, 92190306003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	330	02/20/14 16:32	
1,2-Dichlorobenzene	ug/kg	ND	330	02/20/14 16:32	
1,3-Dichlorobenzene	ug/kg	ND	330	02/20/14 16:32	
1,4-Dichlorobenzene	ug/kg	ND	330	02/20/14 16:32	
1-Methylnaphthalene	ug/kg	ND	330	02/20/14 16:32	
2,4,5-Trichlorophenol	ug/kg	ND	330	02/20/14 16:32	
2,4,6-Trichlorophenol	ug/kg	ND	330	02/20/14 16:32	
2,4-Dichlorophenol	ug/kg	ND	330	02/20/14 16:32	
2,4-Dimethylphenol	ug/kg	ND	330	02/20/14 16:32	
2,4-Dinitrophenol	ug/kg	ND	1650	02/20/14 16:32	
2,4-Dinitrotoluene	ug/kg	ND	330	02/20/14 16:32	
2,6-Dinitrotoluene	ug/kg	ND	330	02/20/14 16:32	
2-Chloronaphthalene	ug/kg	ND	330	02/20/14 16:32	
2-Chlorophenol	ug/kg	ND	330	02/20/14 16:32	
2-Methylnaphthalene	ug/kg	ND	330	02/20/14 16:32	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	02/20/14 16:32	
2-Nitroaniline	ug/kg	ND	1650	02/20/14 16:32	
2-Nitrophenol	ug/kg	ND	330	02/20/14 16:32	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	330	02/20/14 16:32	
3,3'-Dichlorobenzidine	ug/kg	ND	1650	02/20/14 16:32	
3-Nitroaniline	ug/kg	ND	1650	02/20/14 16:32	
4,6-Dinitro-2-methylphenol	ug/kg	ND	660	02/20/14 16:32	
4-Bromophenylphenyl ether	ug/kg	ND	330	02/20/14 16:32	
4-Chloro-3-methylphenol	ug/kg	ND	660	02/20/14 16:32	
4-Chloroaniline	ug/kg	ND	1650	02/20/14 16:32	
4-Chlorophenylphenyl ether	ug/kg	ND	330	02/20/14 16:32	
4-Nitroaniline	ug/kg	ND	660	02/20/14 16:32	
4-Nitrophenol	ug/kg	ND	1650	02/20/14 16:32	
Acenaphthene	ug/kg	ND	330	02/20/14 16:32	
Acenaphthylene	ug/kg	ND	330	02/20/14 16:32	
Aniline	ug/kg	ND	330	02/20/14 16:32	
Anthracene	ug/kg	ND	330	02/20/14 16:32	
Benzo(a)anthracene	ug/kg	ND	330	02/20/14 16:32	
Benzo(a)pyrene	ug/kg	ND	330	02/20/14 16:32	
Benzo(b)fluoranthene	ug/kg	ND	330	02/20/14 16:32	
Benzo(g,h,i)perylene	ug/kg	ND	330	02/20/14 16:32	
Benzo(k)fluoranthene	ug/kg	ND	330	02/20/14 16:32	
Benzoic Acid	ug/kg	ND	1650	02/20/14 16:32	
Benzyl alcohol	ug/kg	ND	660	02/20/14 16:32	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	02/20/14 16:32	
bis(2-Chloroethyl) ether	ug/kg	ND	330	02/20/14 16:32	
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	02/20/14 16:32	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	02/20/14 16:32	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

METHOD BLANK: 1141134

Matrix: Solid

Associated Lab Samples: 92190306001, 92190306002, 92190306003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Butylbenzylphthalate	ug/kg	ND	330	02/20/14 16:32	
Chrysene	ug/kg	ND	330	02/20/14 16:32	
Di-n-butylphthalate	ug/kg	ND	330	02/20/14 16:32	
Di-n-octylphthalate	ug/kg	ND	330	02/20/14 16:32	
Dibenz(a,h)anthracene	ug/kg	ND	330	02/20/14 16:32	
Dibenzofuran	ug/kg	ND	330	02/20/14 16:32	
Diethylphthalate	ug/kg	ND	330	02/20/14 16:32	
Dimethylphthalate	ug/kg	ND	330	02/20/14 16:32	
Fluoranthene	ug/kg	ND	330	02/20/14 16:32	
Fluorene	ug/kg	ND	330	02/20/14 16:32	
Hexachloro-1,3-butadiene	ug/kg	ND	330	02/20/14 16:32	
Hexachlorobenzene	ug/kg	ND	330	02/20/14 16:32	
Hexachlorocyclopentadiene	ug/kg	ND	330	02/20/14 16:32	
Hexachloroethane	ug/kg	ND	330	02/20/14 16:32	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	02/20/14 16:32	
Isophorone	ug/kg	ND	330	02/20/14 16:32	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	02/20/14 16:32	
N-Nitrosodimethylamine	ug/kg	ND	330	02/20/14 16:32	
N-Nitrosodiphenylamine	ug/kg	ND	330	02/20/14 16:32	
Naphthalene	ug/kg	ND	330	02/20/14 16:32	
Nitrobenzene	ug/kg	ND	330	02/20/14 16:32	
Pentachlorophenol	ug/kg	ND	1650	02/20/14 16:32	
Phenanthrene	ug/kg	ND	330	02/20/14 16:32	
Phenol	ug/kg	ND	330	02/20/14 16:32	
Pyrene	ug/kg	ND	330	02/20/14 16:32	
2,4,6-Tribromophenol (S)	%	79	27-110	02/20/14 16:32	
2-Fluorobiphenyl (S)	%	72	30-110	02/20/14 16:32	
2-Fluorophenol (S)	%	75	13-110	02/20/14 16:32	
Nitrobenzene-d5 (S)	%	70	23-110	02/20/14 16:32	
Phenol-d6 (S)	%	71	22-110	02/20/14 16:32	
Terphenyl-d14 (S)	%	94	28-110	02/20/14 16:32	

LABORATORY CONTROL SAMPLE: 1141135

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	1050	63	39-101	
1,2-Dichlorobenzene	ug/kg	1670	1080	65	36-110	
1,3-Dichlorobenzene	ug/kg	1670	1050	63	35-110	
1,4-Dichlorobenzene	ug/kg	1670	1070	64	35-110	
1-Methylnaphthalene	ug/kg	1670	1160	70	45-105	
2,4,5-Trichlorophenol	ug/kg	1670	1220	73	48-109	
2,4,6-Trichlorophenol	ug/kg	1670	1130	68	45-111	
2,4-Dichlorophenol	ug/kg	1670	1190	71	51-116	
2,4-Dimethylphenol	ug/kg	1670	1310	79	42-103	
2,4-Dinitrophenol	ug/kg	8330	5680	68	28-103	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

LABORATORY CONTROL SAMPLE: 1141135

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/kg	1670	1390	83	46-114	
2,6-Dinitrotoluene	ug/kg	1670	1370	82	48-112	
2-Chloronaphthalene	ug/kg	1670	1000	60	44-105	
2-Chlorophenol	ug/kg	1670	1260	76	36-110	
2-Methylnaphthalene	ug/kg	1670	1200	72	39-112	
2-Methylphenol(o-Cresol)	ug/kg	1670	1210	73	39-101	
2-Nitroaniline	ug/kg	3330	2580	77	44-111	
2-Nitrophenol	ug/kg	1670	1160	70	41-100	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	1200	72	43-103	
3,3'-Dichlorobenzidine	ug/kg	3330	2500	75	10-150	
3-Nitroaniline	ug/kg	3330	2690	81	35-110	
4,6-Dinitro-2-methylphenol	ug/kg	3330	2800	84	38-118	
4-Bromophenylphenyl ether	ug/kg	1670	1380	83	47-115	
4-Chloro-3-methylphenol	ug/kg	3330	2510	75	43-127	
4-Chloroaniline	ug/kg	3330	2470	74	34-109	
4-Chlorophenylphenyl ether	ug/kg	1670	1260	76	44-115	
4-Nitroaniline	ug/kg	3330	2630	79	37-111	
4-Nitrophenol	ug/kg	8330	6180	74	21-152	
Acenaphthene	ug/kg	1670	1180	71	38-117	
Acenaphthylene	ug/kg	1670	1200	72	46-107	
Aniline	ug/kg	1670	1120	67	29-110	
Anthracene	ug/kg	1670	1380	83	50-110	
Benzo(a)anthracene	ug/kg	1670	1390	83	47-116	
Benzo(a)pyrene	ug/kg	1670	1480	89	47-106	
Benzo(b)fluoranthene	ug/kg	1670	1340	80	47-109	
Benzo(g,h,i)perylene	ug/kg	1670	1300	78	39-115	
Benzo(k)fluoranthene	ug/kg	1670	1390	83	45-117	
Benzoic Acid	ug/kg	8330	4980	60	16-110	
Benzyl alcohol	ug/kg	3330	2160	65	38-105	
bis(2-Chloroethoxy)methane	ug/kg	1670	1160	69	39-110	
bis(2-Chloroethyl) ether	ug/kg	1670	1160	70	19-119	
bis(2-Chloroisopropyl) ether	ug/kg	1670	1100	66	21-110	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1330	80	35-116	
Butylbenzylphthalate	ug/kg	1670	1330	80	38-110	
Chrysene	ug/kg	1670	1440	87	49-110	
Di-n-butylphthalate	ug/kg	1670	1220	73	43-109	
Di-n-octylphthalate	ug/kg	1670	1260	76	37-109	
Dibenz(a,h)anthracene	ug/kg	1670	1350	81	43-116	
Dibenzofuran	ug/kg	1670	1100	66	45-106	
Diethylphthalate	ug/kg	1670	1170	70	41-114	
Dimethylphthalate	ug/kg	1670	1170	70	43-110	
Fluoranthene	ug/kg	1670	1320	79	50-114	
Fluorene	ug/kg	1670	1260	76	46-114	
Hexachloro-1,3-butadiene	ug/kg	1670	1060	63	28-111	
Hexachlorobenzene	ug/kg	1670	1220	73	46-120	
Hexachlorocyclopentadiene	ug/kg	1670	1330	80	18-119	
Hexachloroethane	ug/kg	1670	1040	63	33-110	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1390	83	42-115	

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

LABORATORY CONTROL SAMPLE: 1141135

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Isophorone	ug/kg	1670	1220	73	44-109	
N-Nitroso-di-n-propylamine	ug/kg	1670	984	59	43-104	
N-Nitrosodimethylamine	ug/kg	1670	982	59	29-110	
N-Nitrosodiphenylamine	ug/kg	1670	1180	71	48-113	
Naphthalene	ug/kg	1670	1180	71	41-110	
Nitrobenzene	ug/kg	1670	1190	71	38-110	
Pentachlorophenol	ug/kg	3330	2460	74	32-128	
Phenanthrene	ug/kg	1670	1360	81	50-110	
Phenol	ug/kg	1670	1310	79	28-106	
Pyrene	ug/kg	1670	1570	94	45-114	
2,4,6-Tribromophenol (S)	%			88	27-110	
2-Fluorobiphenyl (S)	%			68	30-110	
2-Fluorophenol (S)	%			76	13-110	
Nitrobenzene-d5 (S)	%			66	23-110	
Phenol-d6 (S)	%			75	22-110	
Terphenyl-d14 (S)	%			93	28-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1141136 1141137

Parameter	92190305003		MS	MSD	MS		MSD		% Rec		RPD	Qual
	Units	Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits			
1,2,4-Trichlorobenzene	ug/kg	ND	1670	1670	1180	1290	71	78	18-119	9		
1,2-Dichlorobenzene	ug/kg	ND	1670	1670	1180	1230	71	74	50-110	4		
1,3-Dichlorobenzene	ug/kg	ND	1670	1670	1150	1220	69	73	27-110	6		
1,4-Dichlorobenzene	ug/kg	ND	1670	1670	1180	1260	71	75	28-110	6		
1-Methylnaphthalene	ug/kg	ND	1670	1670	1250	1390	75	83	24-116	10		
2,4,5-Trichlorophenol	ug/kg	ND	1670	1670	1410	1440	85	87	28-110	2		
2,4,6-Trichlorophenol	ug/kg	ND	1670	1670	1300	1340	78	81	17-117	3		
2,4-Dichlorophenol	ug/kg	ND	1670	1670	1360	1390	81	83	21-128	2		
2,4-Dimethylphenol	ug/kg	ND	1670	1670	1480	1530	89	92	10-120	3		
2,4-Dinitrophenol	ug/kg	ND	8330	8330	330J	1160J	4	14	10-107	M1		
2,4-Dinitrotoluene	ug/kg	ND	1670	1670	1450	1480	87	89	36-109	2		
2,6-Dinitrotoluene	ug/kg	ND	1670	1670	1470	1530	88	92	32-110	4		
2-Chloronaphthalene	ug/kg	ND	1670	1670	1110	1190	66	72	30-107	7		
2-Chlorophenol	ug/kg	ND	1670	1670	1400	1410	84	85	14-106	1		
2-Methylnaphthalene	ug/kg	ND	1670	1670	1310	1450	79	87	10-135	10		
2-Methylphenol(o-Cresol)	ug/kg	ND	1670	1670	1340	1330	81	80	10-124	1		
2-Nitroaniline	ug/kg	ND	3330	3330	2740	2600	82	78	26-116	5		
2-Nitrophenol	ug/kg	ND	1670	1670	1340	1480	80	89	28-103	10		
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	1670	1670	1340	1340	80	80	10-109	0		
3,3'-Dichlorobenzidine	ug/kg	ND	3330	3330	3120	3100	94	93	10-150	1		
3-Nitroaniline	ug/kg	ND	3330	3330	2800	2670	84	80	22-110	5		
4,6-Dinitro-2-methylphenol	ug/kg	ND	3330	3330	1490	1320	45	39	13-121	13		
4-Bromophenylphenyl ether	ug/kg	ND	1670	1670	1380	1580	83	95	31-109	14		
4-Chloro-3-methylphenol	ug/kg	ND	3330	3330	2710	2770	81	83	13-128	2		
4-Chloroaniline	ug/kg	ND	3330	3330	2690	2760	81	83	18-102	2		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1141136 1141137												
Parameter	Units	92190305003 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
4-Chlorophenylphenyl ether	ug/kg	ND	1670	1670	1300	1460	78	87	29-112	11		
4-Nitroaniline	ug/kg	ND	3330	3330	2700	2710	81	81	16-111	0		
4-Nitrophenol	ug/kg	ND	8330	8330	5420	5290	65	63	14-135	2		
Acenaphthene	ug/kg	ND	1670	1670	1230	1290	74	77	26-114	5		
Acenaphthylene	ug/kg	ND	1670	1670	1290	1360	77	81	32-108	5		
Aniline	ug/kg	ND	1670	1670	1210	1150	72	69	10-107	5		
Anthracene	ug/kg	ND	1670	1670	1380	1440	83	87	32-111	4		
Benzo(a)anthracene	ug/kg	ND	1670	1670	1360	1370	80	80	25-117	1		
Benzo(a)pyrene	ug/kg	ND	1670	1670	1430	1490	83	87	25-106	4		
Benzo(b)fluoranthene	ug/kg	ND	1670	1670	1330	1360	77	79	24-110	3		
Benzo(g,h,i)perylene	ug/kg	ND	1670	1670	1420	1490	85	90	19-112	5		
Benzo(k)fluoranthene	ug/kg	ND	1670	1670	1260	1350	73	78	24-114	7		
Benzoic Acid	ug/kg	ND	8330	8330	240J	253J	3	3	10-110		M1	
Benzyl alcohol	ug/kg	ND	3330	3330	2470	2490	74	75	24-106	1		
bis(2-Chloroethoxy)methane	ug/kg	ND	1670	1670	1270	1290	76	77	13-119	1		
bis(2-Chloroethyl) ether	ug/kg	ND	1670	1670	1310	1320	78	79	10-134	1		
bis(2-Chloroisopropyl) ether	ug/kg	ND	1670	1670	1190	1100	71	66	10-113	8		
bis(2-Ethylhexyl)phthalate	ug/kg	ND	1670	1670	1410	1240	84	74	10-125	13		
Butylbenzylphthalate	ug/kg	ND	1670	1670	1340	1340	81	80	18-110	0		
Chrysene	ug/kg	ND	1670	1670	1460	1460	84	85	30-110	0		
Di-n-butylphthalate	ug/kg	ND	1670	1670	1240	1350	75	81	19-112	8		
Di-n-octylphthalate	ug/kg	ND	1670	1670	1610	1210	97	72	17-105	29		
Dibenz(a,h)anthracene	ug/kg	ND	1670	1670	1510	1480	90	89	23-111	2		
Dibenzofuran	ug/kg	ND	1670	1670	1140	1200	69	72	35-103	5		
Diethylphthalate	ug/kg	ND	1670	1670	1220	1290	73	77	27-113	6		
Dimethylphthalate	ug/kg	ND	1670	1670	1220	1270	73	76	26-111	4		
Fluoranthene	ug/kg	ND	1670	1670	1540	1770	87	101	33-109	14		
Fluorene	ug/kg	ND	1670	1670	1300	1370	78	82	32-113	5		
Hexachloro-1,3-butadiene	ug/kg	ND	1670	1670	1170	1350	70	81	16-116	14		
Hexachlorobenzene	ug/kg	ND	1670	1670	1220	1490	73	89	27-120	19		
Hexachlorocyclopentadiene	ug/kg	ND	1670	1670	1530	1480	92	89	10-108	4		
Hexachloroethane	ug/kg	ND	1670	1670	1100	1210	66	72	10-117	9		
Indeno(1,2,3-cd)pyrene	ug/kg	ND	1670	1670	1510	1560	91	94	10-122	3		
Isophorone	ug/kg	ND	1670	1670	1380	1420	83	85	28-114	3		
N-Nitroso-di-n-propylamine	ug/kg	ND	1670	1670	1060	1060	64	64	27-113	0		
N-Nitrosodimethylamine	ug/kg	ND	1670	1670	1050	1050	63	63	10-109	0		
N-Nitrosodiphenylamine	ug/kg	ND	1670	1670	1200	1200	72	72	10-128	0		
Naphthalene	ug/kg	ND	1670	1670	1320	1360	79	81	25-110	3		
Nitrobenzene	ug/kg	ND	1670	1670	1310	1320	79	79	18-114	1		
Pentachlorophenol	ug/kg	ND	3330	3330	2480	2740	74	82	10-122	10		
Phenanthrene	ug/kg	ND	1670	1670	1450	1580	82	90	30-114	8		
Phenol	ug/kg	ND	1670	1670	1390	1380	83	83	11-102	0		
Pyrene	ug/kg	ND	1670	1670	1520	1520	87	87	25-116	0		
2,4,6-Tribromophenol (S)	%						96	125	27-110		S0	
2-Fluorobiphenyl (S)	%						67	70	30-110			
2-Fluorophenol (S)	%						84	83	13-110			
Nitrobenzene-d5 (S)	%						70	66	23-110			

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1141136		1141137							
Parameter	Units	92190305003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Phenol-d6 (S)	%						81	79	22-110		
Terphenyl-d14 (S)	%						81	82	28-110		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

QC Batch: PMST/6292 Analysis Method: ASTM D2974-87
 QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
 Associated Lab Samples: 92190306001, 92190306002, 92190306003

SAMPLE DUPLICATE: 1148438

Parameter	Units	92189807001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	0.32	0.28	13	

SAMPLE DUPLICATE: 1148439

Parameter	Units	92190762002 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	94.0	94.0	0	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- | | |
|----|---|
| L3 | Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias. |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |
| R1 | RPD value was outside control limits. |
| S0 | Surrogate recovery outside laboratory control limits. |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WBS 33727.1.1 Cumberland 25

Pace Project No.: 92190306

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92190306004	25-3 (TW)	EPA 625	OEXT/26010	EPA 625	MSSV/8797
92190306001	25-1 (2-4)	EPA 3546	OEXT/26001	EPA 8270	MSSV/8768
92190306002	25-2 (4-6)	EPA 3546	OEXT/26001	EPA 8270	MSSV/8768
92190306003	25-3 (4-6)	EPA 3546	OEXT/26001	EPA 8270	MSSV/8768
92190306004	25-3 (TW)	SM 6200B	MSV/25905		
92190306001	25-1 (2-4)	EPA 8260	MSV/25854		
92190306002	25-2 (4-6)	EPA 8260	MSV/25854		
92190306003	25-3 (4-6)	EPA 8260	MSV/25854		
92190306001	25-1 (2-4)	ASTM D2974-87	PMST/6292		
92190306002	25-2 (4-6)	ASTM D2974-87	PMST/6292		
92190306003	25-3 (4-6)	ASTM D2974-87	PMST/6292		

REPORT OF LABORATORY ANALYSIS

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Client Name: Pyramid

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used: IR Gun T1102 T1301 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Temp Correction Factor T1102: No Correction T1301: No Correction

Corrected Cooler Temp.: 4.5 °C Biological Tissue is Frozen: Yes No N/A

Optional
Proj. Due Date:
Proj. Name:

Date and Initials of person examining contents: mmf 2/15/14

Temp should be above freezing to 6°C	Comments:
Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	
All containers needing preservation have been checked. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Samples checked for dechlorination: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	

Client Notification/ Resolution: _____ Field Data Required? Y / N
Person Contacted: _____ Date/Time: _____
Comments/ Resolution: _____

SCURF Review: JDB Date: 2/19/14
SRF Review: JDB Date: 2/20/14

WO# : 92190306



92190306

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Section A
 Required Client Information:
 Company: Pyramid Environmental
 Address: P.O. Box 16265 Greensboro, NC 27416
 Email to: Jim
 Phone: _____ Fax: _____
 Requested Due Date/TAT: Normal

Section B
 Required Project Information:
 Report To: Jim Leatherman
 Copy To: Pyramid
 Purchase Order #: WBS# 33727.1.1/B-4490
 Project Name: NC DOT Cumberland Cty Parcel 025
 Project Number: 2014-008

Section C
 Invoice Information:
 Attention: NC DOT
 Company Name: NC DOT
 Address: WBS# 33727.1.1
 Pace Quote Reference: WBS# 33727.1.1
 Pace Project Manager: Jan Bradley
 Pace Profile #: 6527-17

Section D
 Regulatory Agency: _____
 NPDES _____
 UST _____
 Site Location: _____
 STATE: NC

ITEM #	Sample ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE Drinking Water DW Waste Water WT Water Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
			COMPOSITE START	COMPOSITE END/GRAB						
1	25-1(2-4)	SLG	2/17/14	12:15		5	X			001
2	25-2(4-6)	SLG	2/17/14	12:45		5	X			002
3	25-3(4-6)	SLG	2/17/14	13:00		5	X			003
4	25-3(TW)	WG	2/18/14	9:45		6	X			004
5										
6										
7										
8										
9										
10										
11										
12										

Section E
 Relinquished By / Affiliation: _____ DATE: _____ TIME: _____
 Accepted By / Affiliation: _____ DATE: 2/19/14 TIME: 17:45
 Additional Comments: Handed to Pyram
 Signature of Sampler: [Signature] DATE SIGNED: 2/17/14
 Print Name of Sampler: Jim Leatherman
 Signature of Sampler: [Signature] DATE SIGNED: 2/17/14

APPENDIX F

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Cumberland County ROW **PROJECT NO.:** B-4490
PARCELS 6, 8, 23, 25, 29, 38 and 44

Name: Eric Cross

Date: 1/20/14

Mon Tue Wed Th Fri Sat Sun

TASKS PERFORMED:

E. Cross:

On site: 9AM

Mobilize to site. Performed site visits and owner interviews.

Leave site: 3:30PM

FIELD PERSONNEL LOG

PROJECT NAME: NCDOT Cumberland County ROW **PROJECT NO.:** B-4490
PARCELS 6, 8, 23, 25, 29, 38 and 44

Name: Eric Cross, Alan McFadden **Date:** 1/28/14

Mon **Tue** **Wed** **Th** **Fri** **Sat** **Sun**

TASKS PERFORMED:

E. Cross & A. McFadden:
On site: 8AM
Mobilize to site. Performed geophysical surveys.
Leave site: ~6PM

Lined area for additional task descriptions.

