

**PRELIMINARY SITE ASSESSMENT  
FOR  
PARCEL 104, BRADLEY SYDNOR PROPERTIES, LLC  
OFFICE SPACE  
930 EVANS STREET  
GREENVILLE, PITT COUNTY, NORTH CAROLINA**

**STATE PROJECT: U-3315  
WBS ELEMENT: 35781.1.2**

**PREPARED FOR:**



**NCDOT GEOTECHNICAL ENGINEERING UNIT  
GEOENVIRONMENTAL SECTION  
1589 MSC  
RALEIGH, NORTH CAROLINA 27699-1589**

**NOVEMBER 30, 2012**

**PREPARED BY:**

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**CATLIN PROJECT NO. 212077**

**CORPORATE GEOLOGY LICENSE CERTIFICATION NO. C-118  
CORPORATE LICENSURE NO. FOR ENGINEERING SERVICES C-0585**

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**1.0 PURPOSE OF INVESTIGATION AND DESCRIPTION**

CATLIN Engineers and Scientists (CATLIN) was retained by the North Carolina Department of Transportation (NCDOT) Geotechnical Engineering Unit to provide a field investigation concluding with a Preliminary Site Assessment (PSA) for the above site. In response to a June 19, 2012 Request for Proposal (RFP) (Updated June 29, 2012) and subsequent work scope clarifications with Mr. Gordon Box, LG and Mr. Cyrus Parker, PE, LG, CATLIN submitted a proposal for conducting an investigation at the Parcel 104, Bradley Sydnor Properties, LLC, office space. The parcel/property is located at 930 Evans Street along the NCDOT Project "Stantonsburg Road/Tenth Street Connector from Memorial Drive (US 13) to Evans Street" in Greenville, North Carolina. Sheet 1 illustrates the general location.

The following specific parcel information was provided by NCDOT:

*Currently this site operates as commercial office space. The site is located on the northwest quadrant of Evans Street and West 10<sup>th</sup> Street. Historical aerial photographs suggest that the site may have operated as a gas station at one time. No visual evidence of USTs was observed. According to NCDENR's UST Section Registry there are no known facility IDs or groundwater Incidents associated with this property.*

According to NCDOT acquisition of the right of way (ROW) is necessary for roadway construction (State Project U-3315) and specifically at the above referenced parcel (Parcel 104). A site investigation is requested before ROW acquisition and roadway construction. Underground storage tanks (USTs) and/or associated piping are suspected in the proposed ROW and/or easement(s).

The work scope as requested includes:

- Communicate progress reports to the GeoEnvironmental Section.
- Determine if contaminated soils or USTs are present within the NCDOT ROW, controlled access boundary (CA), or easement with particular emphasis on the vicinity of proposed excavations for drainage, utilities, and slope stake cuts.
- Estimate the quantity of impacted soils. Estimate the volume of impacted soils across the study area and the volume that will require excavation during construction. Indicate the approximate area of soil contamination on a site map and CADD file.
- Research the site for past uses and possible releases and include findings in final report.
- Report the depth to groundwater and obtain one groundwater sample from the site with emphasis on the vicinity of proposed drainage features. Test groundwater sample for contaminants relevant to the site's past use and/or possible releases.
- Provide a MicroStation file with the boring locations and estimated extent of impacted soils (if any).
- Prepare a report including field activities, findings, and recommendations and submit in triplicate and electronically to the NCDOT GeoEnvironmental Section.

This report documents our activities and findings at Parcel 104, Bradley Sydnor Properties, LLC property (currently office space), 930 Evans Street, Greenville, North Carolina. The site is illustrated on Sheet 2.

## 2.0 METHODS

Approximate proposed boring locations were discussed with NCDOT personnel before final Workplan submittal. Slope stake cuts were identified on the cross-section provided by NCDOT within the subject site along alignment -L- near Station 82. Per NCDOT request, borings (soil samples) were located near known or suspect UST systems and proposed drainage features (as indicated on NCDOT provided plan sheets). The NCDOT Conventional Plan Sheet Symbols are provided on Sheet 1A. Accessible proposed drainage features at the site include drainage piping and catch basin number 1101 (See Sheet 2).

North Carolina Department of Environment and Natural Resources (NCDENR) UST Section personnel were interviewed and the NCDENR UST database was reviewed. NCDENR Dry-cleaning Solvent Cleanup Act (DSCA) Program personnel were also interviewed and the DSCA site list was reviewed.

CATLIN coordinated geophysical activities concurrently with soil boring and sampling. The geophysical investigation methods are detailed in the

SCHNABEL ENGINEERING SOUTH, PC (Schnabel) geophysical report provided in Appendix A. Final boring/sample locations were determined based on proposed drainage feature locations and elevations, geophysical results, file review information, field observations, and discussion with NCDOT personnel. CATLIN's field activities at the site began and concluded on August 2, 2012.

## 2.1 FIELD METHODS

All field work was conducted in general accordance with state and federal guidelines and industry standards.

Underground utility locating was coordinated by CATLIN personnel. The North Carolina One Call Center (NC-1-Call) was contacted for underground utility location. The areas around the proposed boring locations were checked and underground utilities were indicated by NC-1-Call personnel.

CATLIN personnel gathered subsurface soil data at the site by Direct Push Technology (DPT) boring advancement using an AMS PowerProbe™ 9600D (PowerProbe). Borings were identified by the parcel number 104 followed by "DPT" and consecutive numbers starting with "01" (example: 104DPT-01). Borings were located at proposed catch basin number 1101 and along associated proposed piping. Borings were also advanced along the proposed ROW/easement. The borings were advanced to depth by static force and a 90-pound hydraulic percussion hammer. Two and one-quarter inch diameter by four-foot length steel is used as casing. Soil samples were continuously collected in four-foot long and one and one-half inch diameter clear liners. Liners are removed from the casing and then cut in half longitudinally to allow for visual/manual classification utilizing the Unified Soil Classification System (USCS). Soils were collected continuously from near the surface to boring termination. Borings for soil sample collection were terminated near the approximate proposed drainage feature installation elevation or eight (8) feet below land surface (BLS). Half of the soils from the liners were removed in two-foot intervals and placed in sealable polyethylene bags for organic vapor analysis (OVA) headspace screening utilizing a photo ionization detector (PID). The USCS, OVA/PID reading, and any indication of petroleum impact were recorded on field logs and have been transferred to the Boring Logs provided in Appendix B. As illustrated on Sheet 2, six (6) borings were advanced for soil sample collection.

Soil samples for laboratory analysis were collected from the sample interval above the water table with the highest OVA/PID reading and/or the sample interval near the bottom of the proposed drainage feature installation elevation. The sample interval was included with the boring

identification as part of the soil sample identification [example: 104DPT-01(5.5-6 ft)]. The sample identifications are included on the Boring Logs in Appendix B and the laboratory analytical Chain of Custody in Appendix C.

Five (5) of the six (6) PowerProbe borings were terminated at approximately eight (8) feet BLS. The 104DPT-02 boring was terminated at 20 feet BLS for approximate depth to water (DTW) determination and groundwater sample collection. Following removal of the PowerProbe tooling, groundwater was pumped directly into the appropriate laboratory provided glassware utilizing new polypropylene tubing and a peristaltic pump.

New disposable nitrile gloves were worn during sampling activities. All samples were placed into laboratory provided glassware and packed on ice in an insulated cooler for transportation to the laboratory. Sample integrity was maintained by following proper Chain of Custody procedures. A copy of the Chain of Custody is provided following the analytical report in Appendix C.

Boreholes were abandoned to just below the surface using three-eighth inch bentonite chips. Bentonite and water were poured into the borehole simultaneously to facilitate hydration. Borings located in asphalt were topped with asphalt cold patch. Final borehole and sample locations were surveyed utilizing a Trimble® GPS survey instrument.

## **2.2 LABORATORY TESTING**

Following boring advancement, selected soils were placed in the appropriately labeled glassware. In an attempt to provide information regarding possible petroleum and/or dry cleaning solvent impact to soils and groundwater, soil samples were analyzed for volatile and semi-volatile organics by Environmental Protection Agency (EPA) Methods 8260B and 8270D Base Neutral (BN) and the groundwater sample was also analyzed for volatile and semi-volatile organics per EPA Methods 8260B and 8270D BN.

A total of six (6) soil samples and one (1) groundwater sample were submitted to SGS Analytical Perspectives (NC Certification #481). Chain of Custody documentation is included in Appendix C.

## **2.3 CONTAMINATED SOIL VOLUME**

Five (5) soil volume calculations are provided as requested, the total contaminated soil volume across the site, the contaminated soil volume to be excavated for drainage feature installation, the

contaminated soil volume to be excavated for water line and gas line installation, the contaminated soil volume to be excavated for electricity line installation, and the contaminated soil volume in the cut section. The calculated contaminated soil volumes are generally based on one (1) discrete sample depth per boring. The calculated contaminated soil volumes are generally based on one (1) discrete sample depth per boring. The total volume calculation assumes the contamination extends vertically from the surface to the water table. The volume calculation for drainage feature installation assumes a vertical walled excavation two (2) feet wider than the drainage pipe width to one (1) foot below the final drainage feature installation invert elevation. The volume calculation for water line and gas line installation assumes an excavation 10 feet wide by five (5) feet deep as indicated by NCDOT. The volume calculation for electricity line installation assumes an excavation five (5) feet wide by four (4) feet deep according to NCDOT. The cut soil volume is calculated using the average end-area method based on the estimated contaminated soil area within the cut area identified in the cross-section. Where the excavation areas for utility and/or drainage features may be in a cut section area, no consideration is taken to allow for overlapping soil volume calculations.

Sample results greater than the lowest Risk-Based Maximum Soil Contaminant Concentration (MSCC) or the lowest Inactive Hazardous Sites Branch (IHSB) Soil Remediation Goal (SRG) are considered contaminated. Contaminated soil volume is estimated from the midpoint distance between a "clean" sample location and contaminated sample location or to the property line or ROW/easement. As requested by NCDOT, the volume estimate will only include soils within parcel property limits, NCDOT ROW, and/or easement. Where soil samples are collected at, near, or below the water table and contaminant concentrations are revealed, contamination may not exist above the seasonal high water table capillary fringe and near the surface. The installation/construction contractor may be able to reduce the soil volume requiring disposal by screening soils during excavation.

### 3.0 RESULTS

#### NCDENR Interview and File Review

NCDENR Washington Regional Office personnel were not aware of any releases on record for the site. The NC DENR UST database does not list any tanks registered at the site. NC DENR DSCA Program personnel were also interviewed. The site does not appear on the NC DENR DSCA site list. There are no UST or DSCA sites adjacent to the subject site. A former dry cleaning business building is located south of the subject site and a DSCA site is located approximately 200 feet east.

Historical aerial photographs were also reviewed and local "historians" were interviewed. Based on review of the historical aerial photographs and locals with knowledge of the area, a gas station previously operated at the site. Aerial photographs dated 1987 and 1978 both show what appears to be a gas station dispenser canopy. It was not determined when the gas station was closed. According to Pitt County records, the property was purchased by the current owner in 1998.

### **Geophysical Investigation**

The complete geophysical investigation report by Schnabel is included in Appendix A and indicates that metallic USTs are unlikely to be encountered within 8 feet of the ground surface in the areas surveyed on the subject property.

### **Site Reconnaissance**

CATLIN personnel identified the proposed drainage feature locations and photographs of the site are provided in Appendix D. Additional photographs are included in the Schnabel report provided in Appendix A. As shown in the photographs, there is a multi-unit office building at the site. The current tenant near the area of investigation is a computer repair facility.

### **Soil and Groundwater**

Sandy clay / clayey sand and silty sand soils with varying amounts of clean sands were encountered across the project site. Generally, clay content increased with depth. No petroleum/hydrocarbon odor was noted in soils collected from any of the borings. Complete boring logs including OVA/PID results are provided in Appendix B.

Summarized soil sample analytical results are provided on Table 1. Soil sample locations and summarized soil analytical results are illustrated on Sheet 2. As indicated on Table 1 and Sheet 2, Tetrachloroethene ("Perc") concentrations were reported above the UST Section Soil-To-Groundwater (STGW) MSCC of 7.4 micrograms per kilogram (ug/kg) and the IHSB Protection of Groundwater Preliminary SRG of 5 ug/kg in the soil samples collected from borings 104DPT-03, -04, and -05. The boring 104DPT-03 is located along the proposed drainage line, approximately 25 feet west of proposed catch basin 1101 (boring 104DPT-02). The borings 104DPT-04 and -05 are located near the proposed easement, north of the proposed drainage feature(s). The "Perc" concentrations ranged from 9.32 ug/kg (at boring 104DPT-04) to 55.8 ug/kg (at boring 104DPT-03). No contaminant concentrations were detected above the Residential MSCCs or the IHSB Preliminary Residential Health Based SRGs. No contaminant concentrations were detected above the lowest MSCCs or SRGs at the proposed catch basin 1101 location (boring 104DPT-02) or at borings 104DPT-01 (along proposed

drainage) and 104DPT-06. No other EPA Method 8260B or EPA Method 8270D BN parameters were revealed above the lowest MSCC in any of the soil samples.

Summarized groundwater sample analytical results are provided on Table 2 and Sheet 2. Tetrachloroethene ("Perc") and Trichloroethene (TCE) were revealed in the 104DPT-02 groundwater sample (at proposed catch basin number 1101) at concentrations of 879 micrograms per liter (ug/L) and 67 ug/L, which are above the corresponding NCAC T15A:02L Groundwater Quality Standards (2L GWQS) of 0.7 ug/L and 3 ug/L, respectively. No other EPA Method 8260B parameters or any EPA Method 8270D BN parameters were detected above the 2L GWQS. Depth to groundwater was measured at approximately 8.9 feet BLS but it was also noted that the water level appeared to be rising. After collecting groundwater sample 104DPT-02 and before abandoning the borehole, the depth to water was approximately 6.5 feet BLS. The complete laboratory analytical report is provided in Appendix C.

### **Contaminated Soil Volume**

In the event a cut is required for roadway construction or utility installation, any soil samples revealing detectable Total Petroleum Hydrocarbon (TPH) concentrations or Risk-Based analysis parameters above the lowest MSCC or SRG will be considered impacted for handling and disposal purposes. The estimated extent of Tetrachloroethene contaminated soil greater than the lowest MSCC and SRG is illustrated on Sheet 2 within the red dashed line and skull symbols. The extent of potentially impacted soil beyond the proposed ROW and/or easement and property line(s) is not considered for volume estimating purposes. While discreet soil samples were collected from soils that may be below the seasonal high water table, soil volume estimate is based on the assumption that impacted soils exist from just below the surface to the assumed water table at roughly 6.5 feet BLS.

The area illustrated with a red dashed line and skull symbols on Sheet 2 is roughly 6,380 square feet. If all soils within this area were excavated to 6.5 feet deep, the volume would be approximately 1,536 cubic yards. However, it should be noted that this area includes a portion along West 10<sup>th</sup> Street where no samples were collected west of boring 104DPT-03 but there was "Perc" soil contamination revealed on the eastern portion of the adjacent western parcel (Parcel 103).

The estimated contaminated soil volume to be removed for installation of the proposed drainage piping is based on an assumed excavation width of 4.5 feet for installation of a 30 inch wide pipe. Also, it is assumed, (based on information provided by NCDOT) that the current surface elevation along the proposed drainage piping is 45 to 48 feet (from just west of proposed catch basin 1101 to the property line just east of proposed catch basin 1007 on Parcel 103) and the bottom of the excavation necessary for proposed

drainage feature construction will be approximately 41.9 feet near proposed catch basin 1101 and 38.4 feet near proposed catch basin 1007 (on adjacent Parcel 103). Therefore, an excavation for drainage feature installation from the estimated extent of the contaminated soil west of proposed catch basin 1101 to the western property line will be approximately 120 linear feet long, by 4.5 feet wide, and roughly 6.5 feet deep, which equals roughly 130 cubic yards.

The estimated contaminated soil volume to be removed for gas line and water line installation includes approximately 150 linear feet within the estimated extent of contamination. Therefore, an excavation from the western property line to the estimated eastern extent of contamination, 10 feet wide by five (5) feet deep equals roughly 278 cubic yards.

The estimated contaminated soil volume to be removed for electricity line installation includes approximately 25 linear feet within the estimated extent of contamination. Therefore, the required an open cut for taking east-west aerial electric line to north-south ground line within the estimated area of contamination is approximately 25 feet long, five (5) feet wide by four (4) feet deep (as indicated by NCDOT) equals roughly 18.5 cubic yards.

The proposed cut section near Alignment -L- Station 82 that is within the estimated extent of contaminated soil is approximately 108 cubic yards

#### **4.0 SUMMARY AND RECOMMENDATIONS**

A preliminary site assessment was conducted at the subject site as requested by NCDOT. NCDOT is planning roadway construction including utility installation and ROW acquisition at the site.

Soils and groundwater impacted with "Perc" were revealed in samples collected from along the proposed drainage features and within the proposed ROW and easement. Trichloroethene concentrations were also revealed in the groundwater sample 104DPT-02 collected at proposed catch basin 1101. The potential source for the "Perc" and TCE appears to be associated with former dry cleaning operations in the building across (south) 10<sup>th</sup> Street. A rough volume estimate of the contaminated soil volume within the property is 1,536 cubic yards. The approximate contaminated soil volume to be removed within the property for drainage feature installation west of catch basin 1101 is 130 cubic yards. The approximate contaminated soil volume to be removed for gas line and water line installation is 278 cubic yards. The approximate contaminated soil volume to be removed for electricity line installation is 18.5 cubic yards. The cut section within the estimated extent of contaminated soil is roughly 108 cubic yards. However, these volume estimates include soil near the surface that may not be contaminated. Also it should be noted that the soil contamination may be a result of groundwater impacts and not reflective of vadose zone soils. Where groundwater contamination is known

or suspected and excavation is necessary into the water table, those excavated soils may be contaminated. Subsequent sampling may be necessary for possible waste disposal determination.

Based on geophysical survey results, site reconnaissance, and NCDENR file review information, there are no USTs suspected at the site.

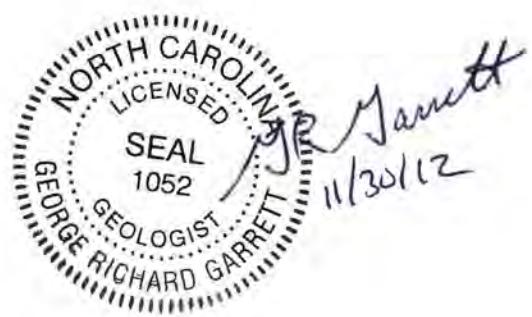
## 5.0 LIMITATIONS

This report is based on the agreed work scope and a review of available data from limited sampling. It is possible that this investigation may have failed to reveal the presence of contamination in the project area where such contamination may exist. Although CATLIN has used accepted methods appropriate for soil and groundwater sampling, CATLIN cannot guarantee that additional soil and/or groundwater contamination does not exist.

## 6.0 SIGNATURES



Benjamin J. Ashba, P.G.  
Project Manager



G. Richard Garrett, P.G.  
Senior Project Manager

## **TABLES**

**TABLE 1**  
**SUMMARY OF SOIL LABORATORY RESULTS - EPA METHODS 8260B AND 8270D BASE NEUTRAL**

Parcel 104, Bradley Sydnor Properties, LLC – Office Space  
930 Evans Street

Sample ID	Method →		EPA Method 8260B					EPA Method 8270D Base Neutral
	Contaminant of Concern →		Acetone	Methylene chloride	Tetrachloroethene ("Perc")	Trichloroethene (TCE)	All other EPA Method 8260B Parameters	All EPA Method 8270D Base Neutral Parameters
	Date Collected	Location						
104DPT-01 (5.5-6ft)	8/2/12	Along proposed drainage ≈ 30' East of CB 1101 and DPT-02	<3.47	2.29 J	<0.651	<0.729	BMDL	BMDL
104DPT-02 (6-6.5ft)	8/2/12	@ CB 1101	<3.88	2.82 J	2.45 J	<0.816	BMDL	BMDL
104DPT-03 (5.5-6ft)	8/2/12	Along proposed drainage ≈ 25' West of CB 1101 and DPT-02	22.1 J	2.36 J	<b>55.8</b>	1.93 J	BMDL	BMDL
104DPT-04 (7-8ft)	8/2/12	≈ 5' South of proposed easement and ≈ 25' North of DPT-03	<3.65	1.57 J	<b>9.32</b>	<0.766	BMDL	BMDL
104DPT-05 (7-8ft)	8/2/12	@ corner of proposed easement and ≈ 28' North-northeast of CB 1101 and DPT-02	4.51 J	<0.884	<b>42.0</b>	0.817 J	BMDL	BMDL
104DPT-06 (7-8ft)	8/2/12	@ corner of proposed easement and ≈ 48' North-northeast of CB 1101 and DPT-02	<3.99	<1.04	<0.747	<0.838	BMDL	BMDL
<b>Preliminary Residential Health Based SRG (ug/kg)</b>			12,000,000	56,000	17,000	880	Varies	Varies
<b>Preliminary Industrial Health Based SRG (ug/kg)</b>			100,000,000	620,000	82,000	4,000	Varies	Varies
<b>Protection of Groundwater Preliminary SRG(ug/kg)</b>			24,000	23	5	18	Varies	Varies
<b>Residential MSCC (ug/kg)</b>			14,000,000	85,000	1,100	4,600	Varies	Varies
<b>Industrial/Commercial MSCC (ug/kg)</b>			360,000,000	763,000	10,000	120,000	Varies	Varies
<b>Soil-To-Groundwater MSCC (ug/kg)</b>			24,000	20	7.4	19	Varies	Varies
<b>NC "Contained-Out" Level for Unrestricted Use (ug/kg)</b>			2,800	20	7.4	18	Varies	Varies

All results in micrograms per kilogram (ug/kg).

Sample depth below land surface provided in parenthesis as part of the sample identification.

CB = Proposed Catch Basin

BMDL = Below Method Detection Limit, refer to analytical report for a complete list of parameters and detection limits

< = Less than method detection limit

J = Estimated Concentration

NC "Contained-Out" Levels for Unrestricted Use are provided for general information and are not applicable for comparison to in-situ soil sample results.

Bold results indicate concentrations above the lowest Maximum Soil Contaminant Concentration (MSCC) or Soil Remediation Goal (SRG).

TABLE 2

SUMMARY OF GROUNDWATER LABORATORY RESULTS - EPA METHODS 8260B AND 8270D BASE NEUTRAL

Parcel 104, Bradley Sydnor Properties, LLC – Office Space  
930 Evans Street

Sample ID	Method →		EPA Method 8260B								EPA Method 8270D Base Neutral
	Contaminant of Concern →		Acetone	Benzene	Chloroform	cis-1,2-Dichloroethene	Tetrachloroethene ("Perc")	Toluene	trans-1,2-Dichloroethene	Trichloroethene (TCE)	All other EPA Method 8260B Parameters
	Date Collected	Location									
104DPT-02	8/2/12	@ CB 1101	5.18 J	0.180 J	0.530 J	54.8	<b>879</b>	0.410 J	0.650 J	<b>67.0</b>	BMDL
		<b>2L GWQS (ug/L)</b>	6,000	1	70	70	0.7	600	100	3	Varies
											Varies

All results in micrograms per liter (ug/L).

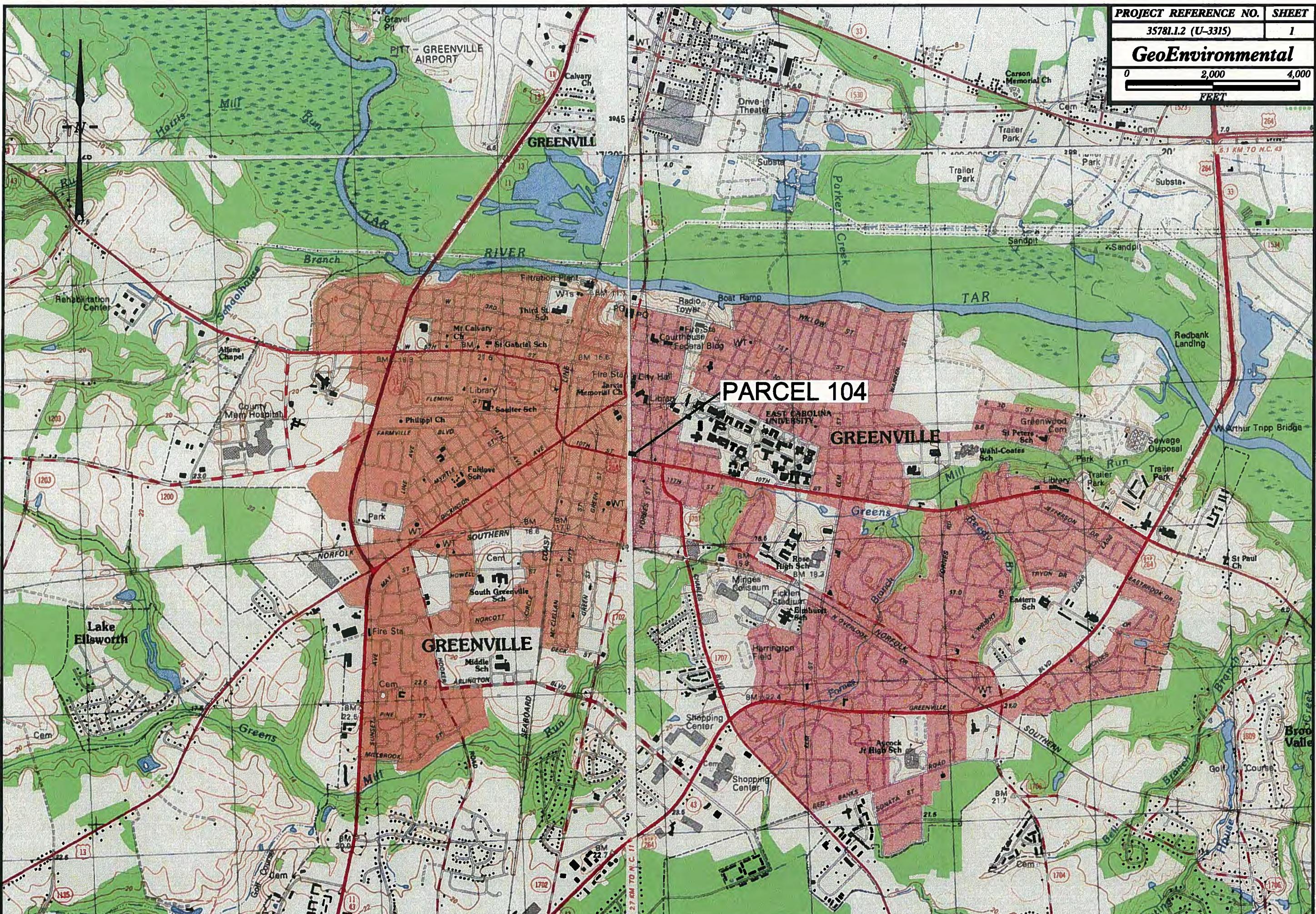
BMDL = Below Method Detection Limit, refer to analytical report for a complete list of parameters and detection limits

Bold results indicate concentrations above the NCAC T15A:02L Groundwater Quality Standards (2L GWQS).

CB = Proposed Catch Basin

J = Estimated Concentration

**SHEETS**



**Note: Not to Scale**  
**\*S.U.E. = Subsurface Utility Engineering**

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. U-1143 SHEET NO. I-A

PRELIMINARY PLANS  
 DO NOT USE FOR CONSTRUCTION

# CONVENTIONAL PLAN SHEET SYMBOLS

## BOUNDARIES AND PROPERTY:

- State Line \_\_\_\_\_
- County Line \_\_\_\_\_
- Township Line \_\_\_\_\_
- City Line \_\_\_\_\_
- Reservation Line \_\_\_\_\_
- Property Line \_\_\_\_\_
- Existing Iron Pin 
- Property Corner \_\_\_\_\_
- Property Monument 
- Parcel/Sequence Number 
- Existing Fence Line 
- Proposed Woven Wire Fence 
- Proposed Chain Link Fence 
- Proposed Barbed Wire Fence 
- Existing Wetland Boundary 
- Proposed Wetland Boundary 
- Existing Endangered Animal Boundary 
- Existing Endangered Plant Boundary 
- Known Soil Contamination: Area or Site 
- Potential Soil Contamination: Area or Site 

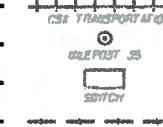
## BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap 
- Sign 
- Well 
- Small Mine 
- Foundation 
- Area Outline 
- Cemetery 
- Building 
- School 
- Church 
- Dam 

## HYDROLOGY:

- Stream or Body of Water \_\_\_\_\_
- Hydro, Pool or Reservoir 
- Jurisdictional Stream 
- Buffer Zone 1 
- Buffer Zone 2 
- Flow Arrow 
- Disappearing Stream 
- Spring 
- Wetland 
- Proposed Lateral, Tail, Head Ditch 
- False Sump 

## RAILROADS:

- Standard Gauge \_\_\_\_\_
- RR Signal Milepost 
- Switch \_\_\_\_\_
- RR Abandoned \_\_\_\_\_
- RR Dismantled \_\_\_\_\_

## RIGHT OF WAY:

- Baseline Control Point 
- Existing Right of Way Marker 
- Existing Right of Way Line \_\_\_\_\_
- Proposed Right of Way Line \_\_\_\_\_
- Proposed Right of Way Line with Iron Pin and Cap Marker 
- Proposed Right of Way Line with Concrete or Granite Marker 
- Existing Control of Access 
- Proposed Control of Access 
- Existing Easement Line 
- Proposed Temporary Construction Easement 
- Proposed Temporary Drainage Easement 
- Proposed Permanent Drainage Easement 
- Proposed Permanent Drainage / Utility Easement 
- Proposed Permanent Utility Easement 
- Proposed Temporary Utility Easement 
- Proposed Aerial Utility Easement 
- Proposed Permanent Easement with Iron Pin and Cap Marker 

## ROADS AND RELATED FEATURES:

- Existing Edge of Pavement \_\_\_\_\_
- Existing Curb \_\_\_\_\_
- Proposed Slope Stakes Cut 
- Proposed Slope Stakes Fill 
- Proposed Curb Ramp 
- Curb Cut Future Ramp 
- Existing Metal Guardrail 
- Proposed Guardrail 
- Existing Cable Guiderrail 
- Proposed Cable Guiderrail 
- Equality Symbol 
- Pavement Removal 
- VEGETATION:
- Single Tree 
- Single Shrub 
- Hedge 
- Woods Line 

## ORCHARD

- Orchard 

## EXISTING STRUCTURES:

### MAJOR:

- Bridge, Tunnel or Box Culvert 

- Bridge Wing Wall, Head Wall and End Wall 

### MINOR:

- Head and End Wall 

- Pipe Culvert 

- Footbridge 

- Drainage Box: Catch Basin, DI or JB 

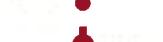
- Paved Ditch Gutter 

- Storm Sewer Manhole 

- Storm Sewer 

## UTILITIES:

### POWER:

- Existing Power Pole 

- Proposed Power Pole 

- Existing Joint Use Pole 

- Proposed Joint Use Pole 

- Power Manhole 

- Power Line Tower 

- Power Transformer 

- UG Power Cable Hand Hole 

- H-Frame Pole 

- Recorded UG Power Line 

- Designated UG Power Line (S.U.E.\*.) 

- TELEPHONE:

- Existing Telephone Pole 

- Proposed Telephone Pole 

- Telephone Manhole 

- Telephone Booth 

- Telephone Pedestal 

- Telephone Cell Tower 

- UG Telephone Cable Hand Hole 

- Recorded UG Telephone Cable 

- Designated UG Telephone Cable (S.U.E.\*.) 

- Recorded UG Telephone Conduit 

- Designated UG Telephone Conduit (S.U.E.\*.) 

- Recorded UG Fiber Optics Cable 

- Designated UG Fiber Optics Cable (S.U.E.\*.) 

## WATER:

- Water Manhole 

- Water Meter 

- Water Valve 

- Water Hydrant 

- Recorded UG Water Line 

- Designated UG Water Line (S.U.E.\*.) 

- Above Ground Water Line 

## TV:

- TV Satellite Dish 

- TV Pedestal 

- TV Tower 

- UG TV Cable Hand Hole 

- Recorded UG TV Cable 

- Designated UG TV Cable (S.U.E.\*.) 

SUMMARY OF SOIL LABORATORY RESULTS - EPA METHODS 8260B AND 8270D BASE NEUTRAL								
Parcel 104, Bradley Sydnor Properties, LLC – Office Space 930 Evans Street								
Sample ID	Method →		EPA Method 8260B					EPA Method 8270D Base Neutral
	Contaminant of Concern →		Acetone	Methylene chloride	Tetrachloroethene ("Perc")	Trichloroethene (TCE)	All other EPA Method 8260B Parameters	All EPA Method 8270D Base Neutral Parameters
	Date Collected	Location						
104DPT-01 (5.5-ft)	8/2/12	Along proposed drainage = 30' East of CB 1101 and DPT-02	<3.47	2.29 J	<0.651	<0.729	BMDL	BMDL
104DPT-02 (6-6.5ft)	8/2/12	@ CB 1101	<3.88	2.82 J	2.45 J	<0.816	BMDL	BMDL
104DPT-03 (5.5-6ft)	8/2/12	Along proposed drainage = 25' West of CB 1101 and DPT-02	22.1 J	2.36 J	55.8	1.93 J	BMDL	BMDL
104DPT-04 (7-8ft)	8/2/12	= 5' South of proposed easement and = 25' North of DPT-03	<3.65	1.57 J	9.32	<0.766	BMDL	BMDL
104DPT-05 (7-8ft)	8/2/12	@ corner of proposed easement and = 28' North-northeast of CB 1101 and DPT-02	4.51 J	<0.884	42.0	0.817 J	BMDL	BMDL
104DPT-06 (7-8ft)	8/2/12	@ corner of proposed easement and = 48' North-northeast of CB 1101 and DPT-02	<3.99	<1.04	<0.747	<0.838	BMDL	BMDL
<b>Preliminary Residential Health Based SRG (ug/kg)</b>			12,000,000	56,000	17,000	880	Varies	Varies
<b>Preliminary Industrial Health Based SRG (ug/kg)</b>			100,000,000	620,000	82,000	4,000	Varies	Varies
<b>Protection of Groundwater Preliminary SRG(ug/kg)</b>			24,000	23	5	18	Varies	Varies
<b>Residential MSCC (ug/kg)</b>			14,000,000	85,000	1,100	4,600	Varies	Varies
<b>Industrial/Commercial MSCC (ug/kg)</b>			360,000,000	763,000	10,000	120,000	Varies	Varies
<b>Soil-To-Groundwater MSCC (ug/kg)</b>			24,000	20	7.4	19	Varies	Varies
<b>NC "Contained-Out" Level for Unrestricted Use (ug/kg)</b>			2,800	20	7.4	18	Varies	Varies

All results in micrograms per liter ( $\mu\text{g/L}$ ).  
BMDL = Below Method Detection Limit, refer to analytical report for a complete list of parameters and detection limits  
**Bold** results indicate concentrations above the NCAC T15A-02L Groundwater Quality Standards (2L GWQS).  
CB = Proposed Catch Basin  
J = Estimated Concentration

**PROJECT REFERENCE NO.** **SHEET**

81.1.2 (U-3315) 2

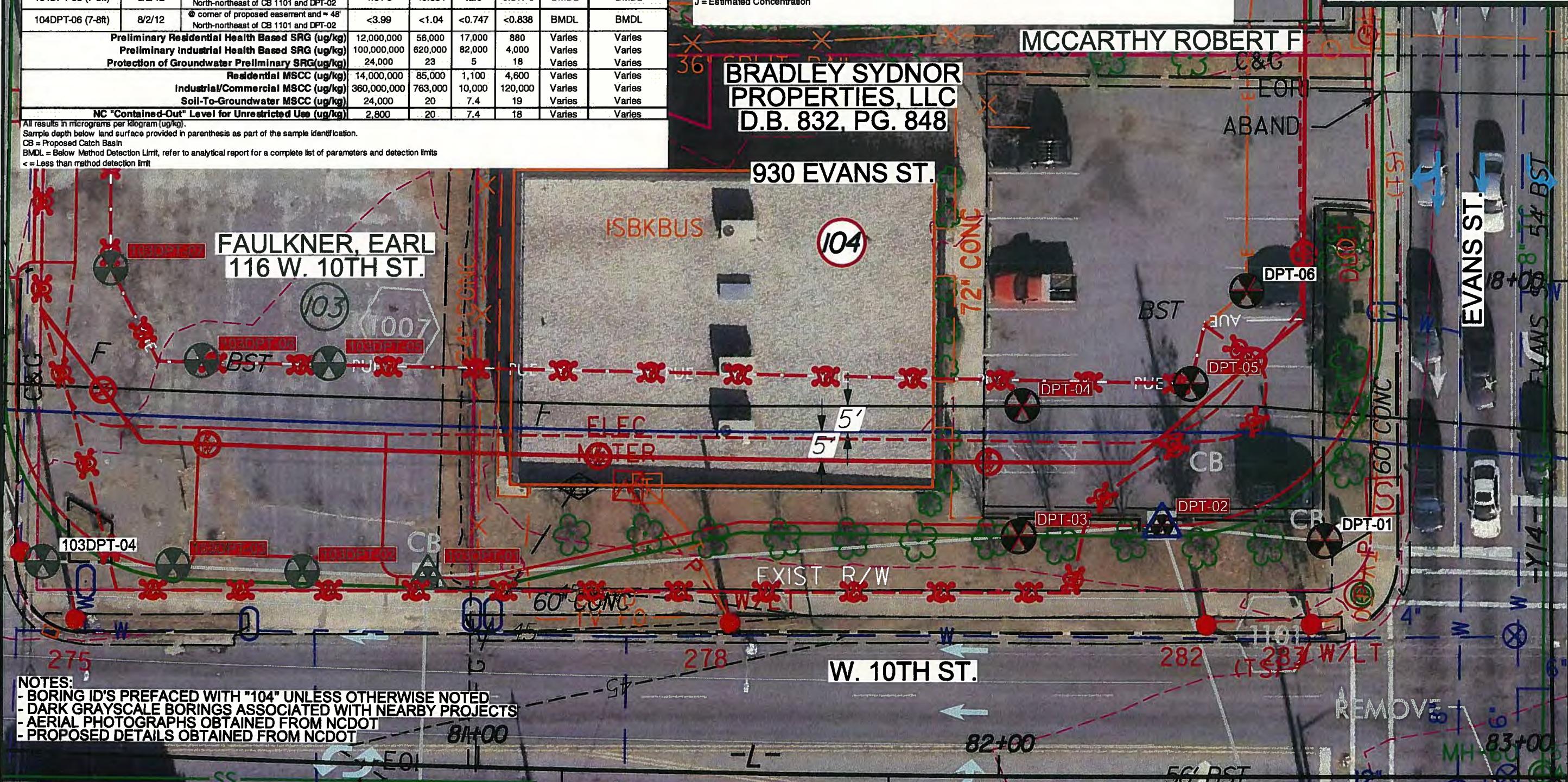
*GeoEnvironmental*

A horizontal scale with numerical markings at 0, 20, and 40. A thick black horizontal bar is positioned below the scale, starting at the 0 mark and extending to approximately the 15 mark.

#### **LEGEND**

**ID. SOIL BORING/SAMPLE & GROUNDWATER SAMPLE**

#### ID "HOT" SAMPLE



## **APPENDICES**

**APPENDIX A**  
**SCHNABEL GEOPHYSICAL REPORT**



August 15, 2012

Mr. Richard Garrett, LG, Project Manager  
Catlin Engineers and Scientists, Inc.  
P.O. Box 10279  
Wilmington, NC 28404-0279

RE:            State Project: U-3315  
                  WBS Element: 35781.1.2  
                  County: Pitt  
                  Description: Stantonburg Road/Tenth Street Connector from Memorial Drive (US 13) to Evans Street

**Subject:**     **Project 11821014.17, Report on Geophysical Surveys**  
**Parcel 104, Bradley Syndor Properties LLC, Greenville, North Carolina**

Dear Mr. Garrett:

**SCHNABEL ENGINEERING SOUTH, PC** (Schnabel) is pleased to present this report on the geophysical surveys we performed on the subject property. The report includes two 11x17 color figures and two 8.5x11 color figures.

## INTRODUCTION

The work described in this report was performed on July 13 and 25, 2012, by Schnabel under our 2011 contract with the NCDOT. The surveys were performed over the accessible areas of the property as indicated by the NCDOT to support their environmental assessment of the subject property. Photographs of the property are included on Figure 1. The property is located on the northwest quadrant of Evans Street and W 10<sup>th</sup> Street in Greenville, NC. The purpose of the geophysical surveys was to investigate the presence of metal underground storage tanks (USTs) in the accessible areas of the right-of-way and/or easement.

The geophysical surveys consisted of an electromagnetic (EM) induction survey and a ground penetrating radar (GPR) survey. The EM survey was performed using a Geonics EM61-MK2 instrument. The EM61 is a time domain metal detector that is used to locate metal objects buried up to about eight feet below ground surface. When collecting EM61 data, three or four time gates are recorded of the response decay rate. The GPR survey was performed over selected EM61 anomalies, including areas of reinforced

concrete, using a Geophysical Survey Systems SIR-3000 system equipped with a 400 MHz antenna. Photographs of the equipment used are shown on Figure 2.

### **FIELD METHODOLOGY**

Locations of geophysical data points were obtained using a sub-meter Trimble Pro-XRS DGPS system. References to direction and location in this report are based on the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 83 datum, with units in US survey feet. We recorded the locations of existing site features (monitoring wells, signs, etc.) with the Trimble system for later correlation with the geophysical data and locations provided by the NCDOT.

The EM61 data were collected along parallel survey lines spaced approximately 2.5 feet apart. The EM61 and DGPS data were recorded digitally using a field computer and later transferred to a desktop computer for data processing. The GPR data were collected along survey lines spaced one to two feet apart in orthogonal directions over areas of reinforced concrete and anomalous EM readings not attributed to cultural features. The GPR data were reviewed in the field to evaluate the possible presence of USTs. The GPR data also were recorded digitally and later transferred to a desktop computer for further review.

### **DISCUSSION OF RESULTS**

The contoured EM61 data collected over Parcel 104 are shown on Figures 3 and 4. The EM61 early time gate data are plotted on Figure 3. The early time gate data provide a more sensitive detection of metal objects than the later time gate data. Figure 4 shows the differential response between the top and bottom coils of the EM61 instrument. The differential response data filters out the effect of surface and very shallowly buried metallic objects. Typically, the differential response emphasizes anomalies from deeper and larger objects such as USTs.

The early time gate and differential results show anomalies of unknown cause, in addition to those apparently caused by known site features (Figures 3 and 4). The GPR data indicate that the EM anomalies of unknown cause are probably caused by reinforced concrete, and buried utilities. The GPR data collected at the site do not indicate the presence of metallic USTs within the areas surveyed.

### **CONCLUSIONS**

Our evaluation of the geophysical data collected on the subject property on Project U-3315 in Greenville, NC indicates that metallic USTs are unlikely to be encountered within 8 feet of the ground surface in the areas surveyed on the subject property.

**NCDOT, Geotechnical Engineering Unit  
State Project U-3315, Pitt County**

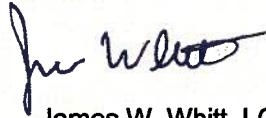
**LIMITATIONS**

These services have been performed and this report prepared for Catlin Engineers and Scientists, Inc. and the North Carolina Department of Transportation in accordance with generally accepted guidelines for conducting geophysical surveys. It is generally recognized that the results of geophysical surveys are non-unique and may not represent actual subsurface conditions.

We appreciate the opportunity to have provided these services. Please call if you need additional information or have any questions.

Sincerely,

**SCHNABEL ENGINEERING SOUTH, PC**



James W. Whitt, LG  
Senior Staff Geophysicist



Jeremy S. Strohmeyer, LG  
Project Manager

JW:JS

Attachments: Figures (4)

CC: NCDOT, Gordon Box

FILE: G:\2011-SDE-JOBS\11821014\_00\_NCDOT\_2011\_GEOTECHNICAL\_UNIT\_SERVICES\11821014\_17\_U-3315\_PITT COUNTY\REPORT\PARCEL 104\SCHNABEL GEOPHYSICAL REPORT ON PARCEL 104 (U-3315).DOCX



Parcel 104 (Bradley Syndor Property LLC), looking northwest



Parcel 104 (Bradley Syndor Property LLC), looking west



**Schnabel**  
ENGINEERING

STATE PROJECT U-3315  
NC DEPT. OF TRANSPORTATION  
PITT COUNTY, NORTH CAROLINA  
PROJECT NO. 11821014.17

PARCEL 104  
SITE PHOTOS

FIGURE 1



Geonics EM61-MK2 Metal Detector with Trimble DGPS Unit



GSSI SIR-3000 Ground-Penetrating Radar with 400 MHz Antenna

Note: Stock photographs – not taken on site.



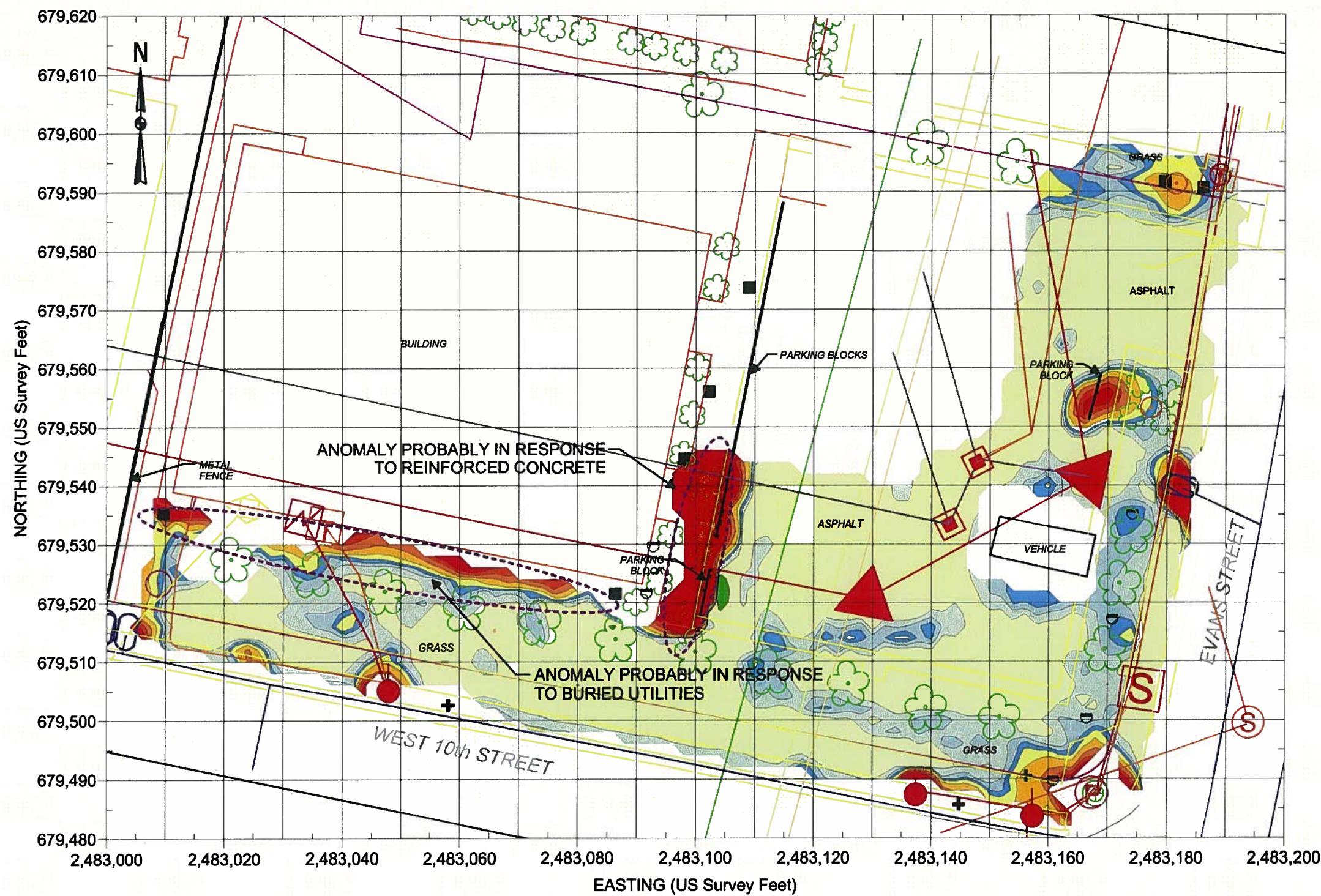
**Schnabel**  
ENGINEERING

STATE PROJECT U-3315  
NC DEPT. OF TRANSPORTATION  
PITT COUNTY, NORTH CAROLINA  
PROJECT NO. 11821014.17

PHOTOS OF  
GEOPHYSICAL  
EQUIPMENT USED

FIGURE 2

## PARCEL 104



Note: The contour plot shows the earliest and more sensitive time gate of the EM61 bottom coil/channel in millivolts (mV). The EM data were collected on July 13, 2012, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina Zone 3200, using the NAD 1983 datum. GPR data were acquired on July 25, 2012, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

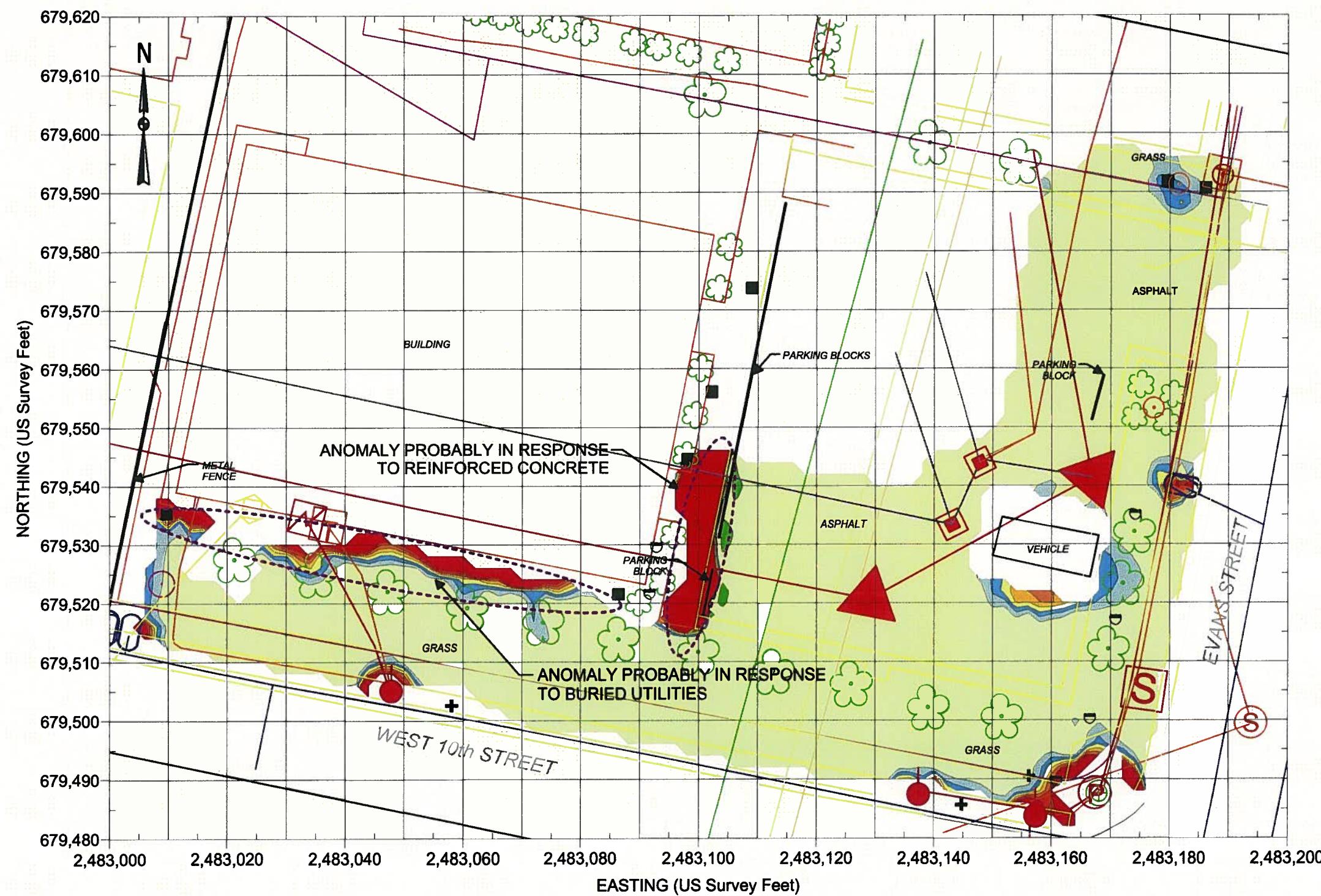


STATE PROJECT U-3315  
NC DEPARTMENT OF TRANSPORTATION  
PITT COUNTY, NORTH CAROLINA  
PROJECT NO. 11821014.17

EM61  
EARLY TIME GATE  
RESPONSE

FIGURE 3

# PARCEL 104



Note: The contour plot shows the difference, in millivolts (mV), between the readings from the top and bottom coils of the EM61. The difference is taken to reduce the effect of shallow metal objects and emphasize anomalies caused by deeper metallic objects, such as drums and tanks. The EM data were collected on July 13, 2012, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 1983 datum. GPR data were acquired on February 3, 2012, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.



STATE PROJECT U-3315  
NC DEPARTMENT OF TRANSPORTATION  
PITT COUNTY, NORTH CAROLINA  
PROJECT NO. 11821014.17

EM61  
DIFFERENTIAL  
RESPONSE

FIGURE 4

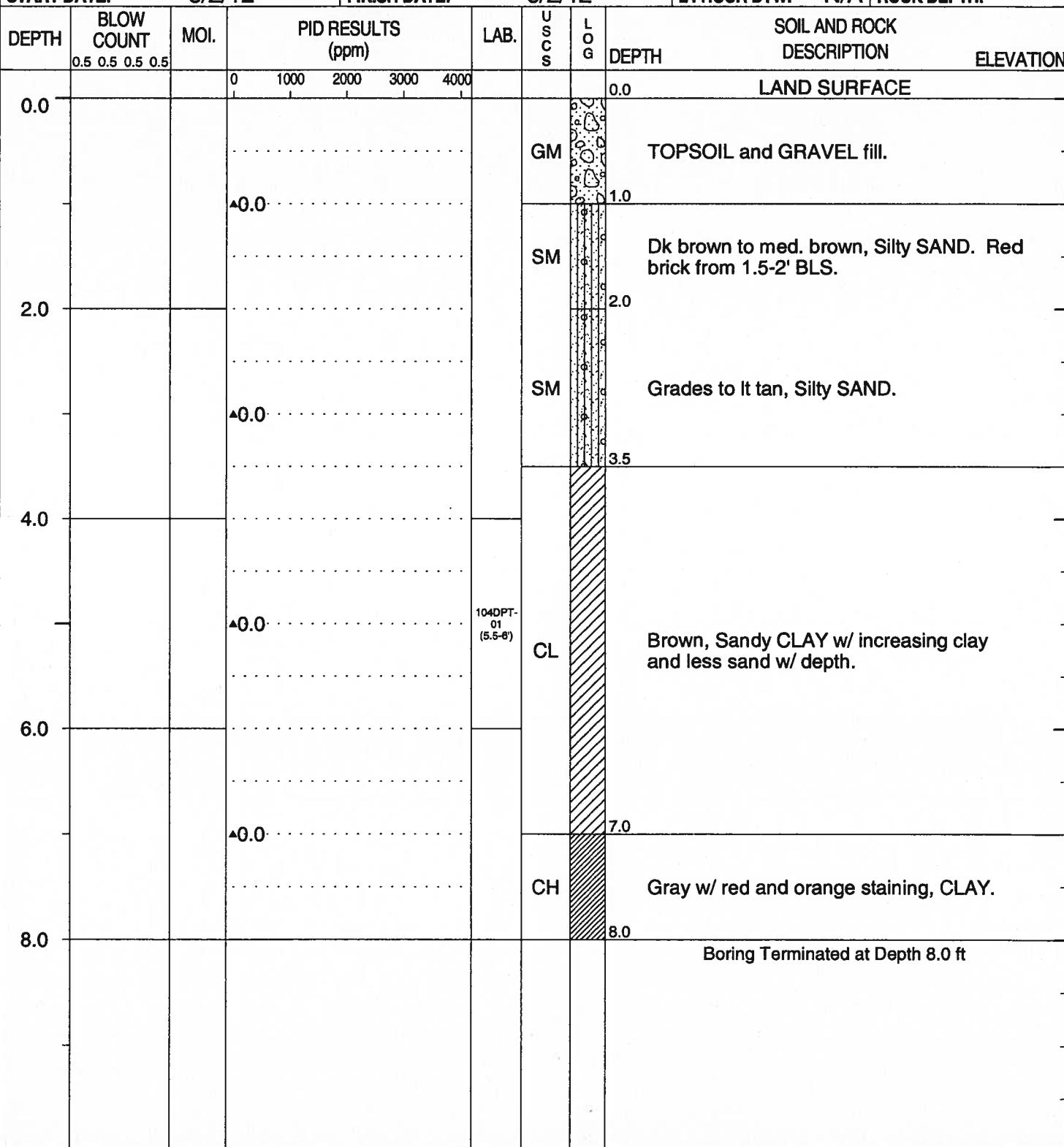
**APPENDIX B  
BORING LOGS**

# BORING LOG

  
**CATLIN**  
 Engineers and Scientists  
 Wilmington, NC  
 WBS Element: 35781.1.2  
 State Project: U-3315

PROJECT NO.:	212077	STATE:	NC	COUNTY:	Pitt	LOCATION:	Greenville
PROJECT NAME:	Parcel 104 - Bradley Sydnor Prop. LLC - Office Space	LOGGED BY:	Ben Ashba	DRILLER:	William J. Miller	BORING ID:	
NORTHING:	679,499.00	EASTING:	2,483,163.00	CREW:	Corey Futral	LAND ELEV.:	NM

SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: 25' E. of CB 1101	LAND ELEV.:	NM
DRILL MACHINE: Power Probe	METHOD: CPT / DPT	0 HOUR DTW:	N/A
START DATE: 8/2/12	FINISH DATE: 8/2/12	24 HOUR DTW:	N/A



# BORING LOG



CATLIN  
Engineers and Scientists  
WBS Element: 35781.1.2  
State Project: U-3315  
Wilmington, NC

PROJECT NO.:	212077	STATE:	NC	COUNTY:	Pitt	LOCATION:	Greenville	
PROJECT NAME:	Parcel 104 - Bradley Sydnor Prop. LLC	LOGGED BY:	Ben Ashba	DRILLER:	William J. Miller	BORING ID:		
	- Office Space	CREW:	Corey Futral				104DPT-02	
NORTHING:	679,508.00	EASTING:	2,483,133.00			LAND ELEV.:	NM	
SYSTEM:	NCSP NAD 83 (USft)	BORING LOCATION:	@ CB 1101					
DRILL MACHINE:	Power Probe	METHOD:	CPT / DPT	0 HOUR DTW:	8.9	BORING DEPTH:	20.0	
START DATE:	8/2/12	FINISH DATE:	8/2/12	24 HOUR DTW:	N/A	ROCK DEPTH:	--	
DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm)	LAB.	U S C S	L O G	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 250 500 750 1,000				0.0	LAND SURFACE
2.0			▲0		SM		TOPSOIL.	
4.0			▲0		SM		Tan, Silty SAND.	
6.0			▲0		CL		Brown, Sandy CLAY.	
6.5			▲0		DPT-02 (8-8.5)			
8.0			▲0		SM		Grading to med to lt tan, Silty SAND.	
12.0							Blind Point to 20' BLS.	
16.0								
20.0							Boring Terminated at Depth 20.0 ft	

# BORING LOG

CATLIN  
Engineers and Scientists  
WBS Element: 35781.1.2  
State Project: U-3315  
Wilmington, NC

PROJECT NO.:	212077	STATE:	NC	COUNTY:	Pitt	LOCATION:	Greenville
PROJECT NAME:	Parcel 104 - Bradley Sydnor Prop. LLC - Office Space	LOGGED BY:	Ben Ashba	DRILLER:	William J. Miller	BORING ID:	104DPT-03
NORTHING:	679,509.00	EASTING:	2,483,119.00	CREW:	Corey Futral	LAND ELEV.:	NM
SYSTEM:	NCSP NAD 83 (USft)	BORING LOCATION:	25' W. of CB 1101	0 HOUR DTW:	N/A	BORING DEPTH:	8.0
DRILL MACHINE:	Power Probe	METHOD:	CPT / DPT	24 HOUR DTW:	N/A	ROCK DEPTH:	--
START DATE:	8/2/12	FINISH DATE:	8/2/12	U S C S	L O G	DEPTH	SOIL AND ROCK DESCRIPTION ELEVATION
DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm)	LAB.			
0.0			0 1000 2000 3000 4000			0.0	LAND SURFACE
					SM	0.5	TOPSOIL.
2.0					SM		
4.0					104DPT-03 (5.5-6')	5.0	Dk brown to black to med to lt tan, Silty SAND.
6.0					SC		Lt tan, f. to med. SAND w/ tr. CLAY.
8.0							Boring Terminated at Depth 8.0 ft

# BORING LOG

CATLIN  
Engineers and Scientists  
WBS Element: 35781.1.2  
State Project: U-3315  
Wilmington, NC

PROJECT NO.:	212077	STATE:	NC	COUNTY:	Pitt	LOCATION:	Greenville	
PROJECT NAME:	Parcel 104 - Bradley Sydnor Prop. LLC	LOGGED BY:	Ben Ashba	DRILLER:	William J. Miller	BORING ID:		
	- Office Space						104DPT-04	
NORTHING:	679,535.00	EASTING:	2,483,111.00	CREW:	Corey Futral	LAND ELEV.:	NM	
SYSTEM:	NCSP NAD 83 (USft)	BORING LOCATION:	25' N. of 104DPT-03					
DRILL MACHINE:	Power Probe	METHOD:	CPT / DPT	0 HOUR DTW:	N/A	BORING DEPTH:	8.0	
START DATE:	8/2/12	FINISH DATE:	8/2/12	24 HOUR DTW:	N/A	ROCK DEPTH:	--	
DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm)	LAB.	U S C S	L O G DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000			0.0	LAND SURFACE	
					GW	0.5	ASPHALT.	
			▲0.0		SM	3.0	Dk brown to black to med. tan, Silty SAND.	
2.0								
			▲0.0					
4.0					CL	5.5	Brown, Sandy CLAY.	
			▲0.0					
6.0					SC	8.0	Tan, f. SAND w/ tr. clay increasing w/ depth.	
			▲0.0					
8.0							Boring Terminated at Depth 8.0 ft	

# BORING LOG



CATLIN  
Engineers and Scientists

Wilmington, NC

WBS Element: 35781.1.2  
State Project: U-3315

PROJECT NO.:	212077	STATE:	NC	COUNTY:	Pitt	LOCATION:	Greenville	
PROJECT NAME:	Parcel 104 - Bradley Sydnor Prop. LLC	LOGGED BY:	Ben Ashba	DRILLER:	William J. Miller	BORING ID:		
	- Office Space	CREW:	Corey Futral				104DPT-05	
NORTHING:	679,533.00	EASTING:	2,483,143.00			LAND ELEV.:	NM	
SYSTEM:	NCSP NAD 83 (USft)	BORING LOCATION:	25' N. of CB 1101			BORING DEPTH:	8.0	
DRILL MACHINE:	Power Probe	METHOD:	CPT / DPT	0 HOUR DTW:	N/A	ROCK DEPTH:	--	
START DATE:	8/2/12	FINISH DATE:	8/2/12	24 HOUR DTW:	N/A			
DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm)	LAB.	U S C S	L O G	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000				0.0	LAND SURFACE
2.0					GW		ASPHALT and GRAVEL fill. 0.5	
4.0					CL		Black and med. brown, Sandy CLAY. Slight HCO ~2' BLS.	
6.0					SC		4.5	
8.0				104DPT-05 (7-8')			Lt brown to lt tan, Silty f. to med. SAND w/ tr. clay.	
								Boring Terminated at Depth 8.0 ft

# BORING LOG



**CATLIN**  
Engineers and Scientists

Wilmington, NC

WBS Element: 35781.1.2  
State Project: U-3315

PROJECT NO.:	212077	STATE:	NC	COUNTY:	Pitt	LOCATION:	Greenville
PROJECT NAME:	Parcel 104 - Bradley Sydnor Prop. LLC - Office Space	LOGGED BY:	Ben Ashba	DRILLER:	William J. Miller	BORING ID:	
NORTHING:	679,549.00	EASTING:	2,483,157.00	CREW:	Corey Futral	104DPT-06	
SYSTEM:	NCSP NAD 83 (USft)	BORING LOCATION:	25' NNE of 104DPT-05			LAND ELEV.:	NM
DRILL MACHINE:	Power Probe	METHOD:	CPT / DPT	0 HOUR DTW:	N/A	BORING DEPTH:	8.0
START DATE:	8/2/12	FINISH DATE:	8/2/12	24 HOUR DTW:	N/A	ROCK DEPTH:	--
DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm)	LAB.	U S C S L O G	DEPTH	SOIL AND ROCK DESCRIPTION
0.0			0 1000 2000 3000 4000			0.0	LAND SURFACE
0.0					GW	0.5	ASPHALT.
0.0					GW	1.5	GRAVEL fill.
2.0					SM	3.5	Tan, Silty SAND.
4.0					CL	4.5	Brown to lt brown, Sandy CLAY.
6.0					SC	8.0	Tan, Silty f. to med. SAND w/ tr. clay.
8.0				104DPT-06 (7.8')			Boring Terminated at Depth 8.0 ft

## **APPENDIX C**

### **LABORATORY REPORT AND CHAIN OF CUSTODY RECORD**



## Laboratory Report of Analysis

To: Ben Ashba  
RICHARD CATLIN & ASSOCIATES  
P.O. Box 10279  
Wilmington, NC 28404

Report Number: 31202489

Client Project: NCDOT Parcel 104

Dear Ben Ashba,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Barbara A. Hager at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,  
SGS North America Inc.

Barbara A. Hager  
2012.08.17 15:52:50 -05'00'

\_\_\_\_\_  
Barbara A. Hager  
Project Manager  
barbara.hager@sgs.com

\_\_\_\_\_  
Date

**ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION,  
VERIFICATION, TESTING AND CERTIFICATION COMPANY.**

## Laboratory Qualifiers

### Report Definitions

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

### Qualifier Definitions

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
V	Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit
A	Amount detected is less than the Lower Method Calibration Limit
J	Estimated Concentration.
O	The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high
E	Amount detected is greater than the Upper Calibration Limit
S	The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s)
Q	Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s)
I	Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s)
DPE	Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s)
TIC	Tentatively Identified Compound
EMPC	Estimated Maximum possible Concentration due to ion ratio failure
ND	Not Detected
K	Result is estimated due to ion ratio failure in High Resolution PCB Analysis
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

Note      Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

**Sample Summary**

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
104DPT-02	31202489001	08/02/2012 11:11	08/03/2012 15:00	Water
104DPT-01 (5.5-6ft)	31202489002	08/02/2012 09:30	08/03/2012 15:00	Soil-Solid as dry weight
104DPT-02 (6-6.5ft)	31202489003	08/02/2012 09:50	08/03/2012 15:00	Soil-Solid as dry weight
104DPT-03 (5.5-6ft)	31202489004	08/02/2012 10:10	08/03/2012 15:00	Soil-Solid as dry weight
104DPT-04 (7-8ft)	31202489005	08/02/2012 10:20	08/03/2012 15:00	Soil-Solid as dry weight
104DPT-05 (7-8ft)	31202489006	08/02/2012 10:30	08/03/2012 15:00	Soil-Solid as dry weight
104DPT-06 (7-8ft)	31202489007	08/02/2012 10:50	08/03/2012 15:00	Soil-Solid as dry weight
Trip Blank (Not on CoC)	31202489008	08/02/2012 00:00	08/03/2012 15:00	Water

**Case Narrative****104DPT-01 (5.5-6ft)**

8260 - The method blank associated with batch VMS2454 has a reported 'J' concentration for Methylene Chloride.

**104DPT-02**

Volatiles - The Method Blank associated with batch VMS2461 has a reported 'J' concentration for Methylene Chloride.

**104DPT-02 (6-6.5ft)**

8260 - The method blank associated with batch VMS2454 has a reported 'J' concentration for Methylene Chloride.

**104DPT-02 (6-6.5ft)(83859MS)**

8260 - The method blank associated with batch VMS2454 has a reported 'J' concentration for Methylene Chloride.

**104DPT-03 (5.5-6ft)**

8260 - The method blank associated with batch VMS2459 has a reported 'J' concentration for Methylene Chloride.

**104DPT-04 (7-8ft)**

8260 - The method blank associated with batch VMS2454 has a reported 'J' concentration for Methylene Chloride.

8260 - The method blank associated with batch VMS2464 has a reported 'J' concentration for Methylene Chloride.

**104DPT-05 (7-8ft)**

8260 - The method blank associated with batch VMS2454 has a reported 'J' concentration for Methylene Chloride.

**104DPT-06 (7-8ft)**

8260 - The method blank associated with batch VMS2454 has a reported 'J' concentration for Methylene Chloride.

**105DPT-12 (6-7ft)(83867DUP)**

8260 - The method blank associated with batch VMS2459 has a reported 'J' concentration for Methylene Chloride.

**105DPT-13 (6-7ft)(83868MS)**

8260 - The method blank associated with batch VMS2459 has a reported 'J' concentration for Methylene Chloride.

**GP-24 (0.5-1)(84321DUP)**

8260 - The method blank associated with batch VMS2464 has a reported 'J' concentration for Methylene Chloride.

**GP-24 (3.5-4)(84323MS)**

8260 - The method blank associated with batch VMS2464 has a reported 'J' concentration for Methylene Chloride.

**LCS for HBN 26801 [VXX/3771]**

Volatiles - The batch MS/MSD was not reported as the parent sample required a dilution.

**LCS for HBN 26888 [VXX/3789]**

Volatiles - The Method Blank associated with batch VMS2461 has a reported 'J' concentration for Methylene Chloride.

**LCSD for HBN 26801 [VXX/3771]**

Volatiles - The batch MS/MSD was not reported as the parent sample required a dilution.

**LCSD for HBN 26888 [VXX/3789]**

Volatiles - The Method Blank associated with batch VMS2461 has a reported 'J' concentration for Methylene Chloride.

**Case Narrative****LCSD-S for HBN 26841 [VXX/3778]**

8260 - The method blank associated with batch VMS2454 has a reported 'J' concentration for Methylene Chloride.

**LCSD-S for HBN 26881 [VXX/3787]**

8260 - The method blank associated with batch VMS2459 has a reported 'J' concentration for Methylene Chloride.

**LCSD-S for HBN 26935 [VXX/3802]**

8260 - The method blank associated with batch VMS2464 has a reported 'J' concentration for Methylene Chloride.

**LCS-S for HBN 26841 [VXX/3778]**

8260 - The method blank associated with batch VMS2454 has a reported 'J' concentration for Methylene Chloride.

**LCS-S for HBN 26881 [VXX/3787]**

8260 - The method blank associated with batch VMS2459 has a reported 'J' concentration for Methylene Chloride.

**LCS-S for HBN 26935 [VXX/3802]**

8260 - The method blank associated with batch VMS2464 has a reported 'J' concentration for Methylene Chloride.

**MB for HBN 26801 [VXX/3771]**

Volatiles - The batch MS/MSD was not reported as the parent sample required a dilution.

**MB for HBN 26888 [VXX/3789]**

Volatiles - The Method Blank associated with batch VMS2461 has a reported 'J' concentration for Methylene Chloride.

**MB-S for HBN 26841 [VXX/3778]**

8260 - The method blank associated with batch VMS2454 has a reported 'J' concentration for Methylene Chloride.

**MB-S for HBN 26881 [VXX/3787]**

8260 - The method blank associated with batch VMS2459 has a reported 'J' concentration for Methylene Chloride.

**MB-S for HBN 26935 [VXX/3802]**

8260 - The method blank associated with batch VMS2464 has a reported 'J' concentration for Methylene Chloride.

**SRW1(84377MS)**

Volatiles - The Method Blank associated with batch VMS2461 has a reported 'J' concentration for Methylene Chloride.

**SRW1(84377MSD)**

Volatiles - The Method Blank associated with batch VMS2461 has a reported 'J' concentration for Methylene Chloride.

**Trip Blank (Not on CoC)**

Volatiles - The batch MS/MSD was not reported as the parent sample required a dilution.

### Detectable Results Summary

**Client Sample ID: 104DPT-02**

Lab Sample ID: 31202489001-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Acetone	5.18	ug/L	J
Benzene	0.180	ug/L	J
Chloroform	0.530	ug/L	J
Tetrachloroethene	879	ug/L	
Toluene	0.410	ug/L	J
Trichloroethene	67.0	ug/L	
cis-1,2-Dichloroethene	54.8	ug/L	
trans-1,2-Dichloroethene	0.650	ug/L	J

**Client Sample ID: 104DPT-01 (5.5-6ft)**

Lab Sample ID: 31202489002-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	2.29	ug/Kg	J

**Client Sample ID: 104DPT-02 (6-6.5ft)**

Lab Sample ID: 31202489003-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	2.82	ug/Kg	J
Tetrachloroethene	2.45	ug/Kg	J

**Client Sample ID: 104DPT-03 (5.5-6ft)**

Lab Sample ID: 31202489004-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Acetone	22.1	ug/Kg	J
Methylene chloride	2.36	ug/Kg	J
Tetrachloroethene	55.8	ug/Kg	
Trichloroethene	1.93	ug/Kg	J

**Client Sample ID: 104DPT-04 (7-8ft)**

Lab Sample ID: 31202489005-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	1.57	ug/Kg	
Tetrachloroethene	9.32	ug/Kg	J

**Client Sample ID: 104DPT-05 (7-8ft)**

Lab Sample ID: 31202489006-B

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Acetone	4.51	ug/Kg	
Tetrachloroethene	42.0	ug/Kg	
Trichloroethene	0.817	ug/Kg	J

**Client Sample ID: Trip Blank (Not on CoC)**

Lab Sample ID: 31202489008-A

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	0.350	ug/L	J
Toluene	0.180	ug/L	

#### Quality Control Samples

**Client Sample ID: MB-S for HBN 26841 [VXX/3778]**

Lab Sample ID: 84243

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	3.48	ug/Kg	J

**Client Sample ID: MB-S for HBN 26881 [VXX/3787]**

Lab Sample ID: 84437

**SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
Methylene chloride	1.67	ug/Kg	J

**Detectable Results Summary****Client Sample ID: MB for HBN 26888 [VXX/3789]**

Lab Sample ID: 84443	<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
<b>SW-846 8260B</b>	Methylene chloride	0.230	ug/L	J

**Client Sample ID: MB-S for HBN 26935 [VXX/3802]**

Lab Sample ID: 84687	<u>Parameter</u>	<u>Result</u>	<u>Units</u>	
<b>SW-846 8260B</b>	Methylene chloride	1.08	ug/Kg	J

## Results of 104DPT-02

Client Sample ID: 104DPT-02  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489001-B  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 11:11  
 Received Date: 08/03/2012 15:00  
 Matrix: Water

## Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.175	1.00	ug/L	1	08/9/2012 19:49
1,1,1-Trichloroethane	ND	U	0.221	1.00	ug/L	1	08/9/2012 19:49
1,1,2,2-Tetrachloroethane	ND	U	0.223	1.00	ug/L	1	08/9/2012 19:49
1,1,2-Trichloroethane	ND	U	0.216	1.00	ug/L	1	08/9/2012 19:49
1,1-Dichloroethane	ND	U	0.162	1.00	ug/L	1	08/9/2012 19:49
1,1-Dichloroethene	ND	U	0.202	1.00	ug/L	1	08/9/2012 19:49
1,1-Dichloropropene	ND	U	0.176	1.00	ug/L	1	08/9/2012 19:49
1,2,3-Trichlorobenzene	ND	U	0.246	1.00	ug/L	1	08/9/2012 19:49
1,2,3-Trichloropropane	ND	U	0.210	1.00	ug/L	1	08/9/2012 19:49
1,2,4-Trichlorobenzene	ND	U	0.220	1.00	ug/L	1	08/9/2012 19:49
1,2,4-Trimethylbenzene	ND	U	0.179	1.00	ug/L	1	08/9/2012 19:49
1,2-Dibromo-3-chloropropane	ND	U	1.88	5.00	ug/L	1	08/9/2012 19:49
1,2-Dibromoethane	ND	U	0.179	1.00	ug/L	1	08/9/2012 19:49
1,2-Dichlorobenzene	ND	U	0.214	1.00	ug/L	1	08/9/2012 19:49
1,2-Dichloroethane	ND	U	0.139	1.00	ug/L	1	08/9/2012 19:49
1,2-Dichloropropane	ND	U	0.158	1.00	ug/L	1	08/9/2012 19:49
1,3,5-Trimethylbenzene	ND	U	0.159	1.00	ug/L	1	08/9/2012 19:49
1,3-Dichlorobenzene	ND	U	0.180	1.00	ug/L	1	08/9/2012 19:49
1,3-Dichloropropane	ND	U	0.198	1.00	ug/L	1	08/9/2012 19:49
1,4-Dichlorobenzene	ND	U	0.243	1.00	ug/L	1	08/9/2012 19:49
2,2-Dichloropropane	ND	U	0.194	1.00	ug/L	1	08/9/2012 19:49
2-Butanone	ND	U	1.39	25.0	ug/L	1	08/9/2012 19:49
2-Chlorotoluene	ND	U	0.160	1.00	ug/L	1	08/9/2012 19:49
2-Hexanone	ND	U	1.39	5.00	ug/L	1	08/9/2012 19:49
4-Chlorotoluene	ND	U	0.259	1.00	ug/L	1	08/9/2012 19:49
4-Isopropyltoluene	ND	U	0.170	1.00	ug/L	1	08/9/2012 19:49
4-Methyl-2-pentanone	ND	U	1.15	5.00	ug/L	1	08/9/2012 19:49
Acetone	5.18	J	2.56	25.0	ug/L	1	08/9/2012 19:49
Benzene	0.180	J	0.156	1.00	ug/L	1	08/9/2012 19:49
Bromobenzene	ND	U	0.205	1.00	ug/L	1	08/9/2012 19:49
Bromochloromethane	ND	U	0.134	1.00	ug/L	1	08/9/2012 19:49
Bromodichloromethane	ND	U	0.222	1.00	ug/L	1	08/9/2012 19:49
Bromoform	ND	U	0.208	1.00	ug/L	1	08/9/2012 19:49
Bromomethane	ND	U	0.507	1.00	ug/L	1	08/9/2012 19:49
n-Butylbenzene	ND	U	0.168	1.00	ug/L	1	08/9/2012 19:49
Carbon disulfide	ND	U	0.197	1.00	ug/L	1	08/9/2012 19:49
Carbon tetrachloride	ND	U	0.169	1.00	ug/L	1	08/9/2012 19:49
Chlorobenzene	ND	U	0.158	1.00	ug/L	1	08/9/2012 19:49
Chloroethane	ND	U	0.902	1.00	ug/L	1	08/9/2012 19:49
Chloroform	0.530	J	0.205	1.00	ug/L	1	08/9/2012 19:49
Chloromethane	ND	U	0.295	1.00	ug/L	1	08/9/2012 19:49
Dibromochloromethane	ND	U	0.173	1.00	ug/L	1	08/9/2012 19:49
Dibromomethane	ND	U	0.171	1.00	ug/L	1	08/9/2012 19:49
Dichlorodifluoromethane	ND	U	0.283	5.00	ug/L	1	08/9/2012 19:49

Print Date: 08/17/2012

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### Results of 104DPT-02

Client Sample ID: 104DPT-02  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489001-B  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 11:11  
 Received Date: 08/03/2012 15:00  
 Matrix: Water

### Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	U	0.185	1.00	ug/L	1	08/9/2012 19:49
trans-1,3-Dichloropropene	ND	U	0.167	1.00	ug/L	1	08/9/2012 19:49
Diisopropyl Ether	ND	U	0.134	1.00	ug/L	1	08/9/2012 19:49
Ethyl Benzene	ND	U	0.186	1.00	ug/L	1	08/9/2012 19:49
Hexachlorobutadiene	ND	U	0.365	1.00	ug/L	1	08/9/2012 19:49
Isopropylbenzene (Cumene)	ND	U	0.196	1.00	ug/L	1	08/9/2012 19:49
Methyl iodide	ND	U	0.247	1.00	ug/L	1	08/9/2012 19:49
Methylene chloride	ND	U	0.199	5.00	ug/L	1	08/9/2012 19:49
Naphthalene	ND	U	0.260	1.00	ug/L	1	08/9/2012 19:49
Styrene	ND	U	0.207	1.00	ug/L	1	08/9/2012 19:49
Tetrachloroethene	879		4.50	20.0	ug/L	20	08/8/2012 13:53
Toluene	0.410	J	0.180	1.00	ug/L	1	08/9/2012 19:49
Trichloroethene	67.0		0.199	1.00	ug/L	1	08/9/2012 19:49
Trichlorofluoromethane	ND	U	0.308	1.00	ug/L	1	08/9/2012 19:49
Vinyl chloride	ND	U	0.386	1.00	ug/L	1	08/9/2012 19:49
Xylene (total)	ND	U	0.602	2.00	ug/L	1	08/9/2012 19:49
cis-1,2-Dichloroethene	54.8		0.179	1.00	ug/L	1	08/9/2012 19:49
m,p-Xylene	ND	U	0.407	2.00	ug/L	1	08/9/2012 19:49
n-Propylbenzene	ND	U	0.185	1.00	ug/L	1	08/9/2012 19:49
o-Xylene	ND	U	0.195	1.00	ug/L	1	08/9/2012 19:49
sec-Butylbenzene	ND	U	0.151	1.00	ug/L	1	08/9/2012 19:49
tert-Butyl methyl ether (MTBE)	ND	U	0.195	1.00	ug/L	1	08/9/2012 19:49
tert-Butylbenzene	ND	U	0.239	1.00	ug/L	1	08/9/2012 19:49
trans-1,2-Dichloroethene	0.650	J	0.247	1.00	ug/L	1	08/9/2012 19:49
trans-1,4-Dichloro-2-butene	ND	U	1.25	5.00	ug/L	1	08/9/2012 19:49

### Surrogates

1,2-Dichloroethane-d4	101	64.0-140	%	1	08/9/2012 19:49
4-Bromofluorobenzene	100	85.0-115	%	1	08/9/2012 19:49
Toluene d8	103	82.0-117	%	1	08/9/2012 19:49

### Batch Information

Analytical Batch: VMS2457  
 Analytical Method: SW-846 8260B  
 Instrument: MSD3  
 Analyst: BWS  
 Analytical Date/Time: 08/08/2012 13:53

Prep Batch: VXX3780  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 08/08/2012 08:40  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol: 40 mL

Analytical Batch: VMS2461  
 Analytical Method: SW-846 8260B  
 Instrument: MSD3  
 Analyst: BWS  
 Analytical Date/Time: 08/09/2012 19:49

Prep Batch: VXX3789  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 08/09/2012 08:11  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol: 40 mL

## Results of 104DPT-02

Client Sample ID: 104DPT-02  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489001-D  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 11:11

Received Date: 08/03/2012 15:00

Matrix: Water

## Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	1.73	5.01	ug/L	1	08/9/2012 22:25
1,2-Dichlorobenzene	ND	U	1.71	5.01	ug/L	1	08/9/2012 22:25
1,3-Dichlorobenzene	ND	U	1.65	5.01	ug/L	1	08/9/2012 22:25
1,4-Dichlorobenzene	ND	U	1.63	5.01	ug/L	1	08/9/2012 22:25
2,4,5-Trichlorophenol	ND	U	2.08	5.01	ug/L	1	08/9/2012 22:25
2,4,6-Trichlorophenol	ND	U	2.03	5.01	ug/L	1	08/9/2012 22:25
2,4-Dichlorophenol	ND	U	2.06	5.01	ug/L	1	08/9/2012 22:25
2,4-Dinitrophenol	ND	U	0.669	25.1	ug/L	1	08/9/2012 22:25
2,4-Dinitrotoluene	ND	U	1.84	5.01	ug/L	1	08/9/2012 22:25
2,6-Dinitrotoluene	ND	U	1.88	5.01	ug/L	1	08/9/2012 22:25
2-Chloronaphthalene	ND	U	2.00	5.01	ug/L	1	08/9/2012 22:25
2-Chlorophenol	ND	U	2.82	5.01	ug/L	1	08/9/2012 22:25
2-Methylnaphthalene	ND	U	1.94	5.01	ug/L	1	08/9/2012 22:25
2-Methylphenol	ND	U	2.07	5.01	ug/L	1	08/9/2012 22:25
2-Nitroaniline	ND	U	1.69	5.01	ug/L	1	08/9/2012 22:25
2-Nitrophenol	ND	U	1.97	5.01	ug/L	1	08/9/2012 22:25
3 and/or 4-Methylphenol	ND	U	2.24	5.01	ug/L	1	08/9/2012 22:25
3,3'-Dichlorobenzidine	ND	U	1.75	10.0	ug/L	1	08/9/2012 22:25
3-Nitroaniline	ND	U	1.65	25.1	ug/L	1	08/9/2012 22:25
4,6-Dinitro-2-methylphenol	ND	U	0.495	25.1	ug/L	1	08/9/2012 22:25
4-Chloro-3-methylphenol	ND	U	1.98	5.01	ug/L	1	08/9/2012 22:25
4-Chloroaniline	ND	U	1.88	25.1	ug/L	1	08/9/2012 22:25
4-Chlorophenyl phenyl ether	ND	U	2.46	5.01	ug/L	1	08/9/2012 22:25
Acenaphthene	ND	U	2.06	5.01	ug/L	1	08/9/2012 22:25
Acenaphthylene	ND	U	2.00	5.01	ug/L	1	08/9/2012 22:25
Anthracene	ND	U	1.93	5.01	ug/L	1	08/9/2012 22:25
Benzo(a)anthracene	ND	U	1.96	5.01	ug/L	1	08/9/2012 22:25
Benzo(a)pyrene	ND	U	1.86	5.01	ug/L	1	08/9/2012 22:25
Benzo(b)fluoranthene	ND	U	1.96	5.01	ug/L	1	08/9/2012 22:25
Benzo(g,h,i)perylene	ND	U	2.15	5.01	ug/L	1	08/9/2012 22:25
Benzo(k)fluoranthene	ND	U	2.31	5.01	ug/L	1	08/9/2012 22:25
Benzoic acid	ND	U	2.28	5.01	ug/L	1	08/9/2012 22:25
Bis(2-Chloroethoxy)methane	ND	U	2.12	5.01	ug/L	1	08/9/2012 22:25
Bis(2-Chloroethyl)ether	ND	U	2.21	5.01	ug/L	1	08/9/2012 22:25
Bis(2-Chloroisopropyl)ether	ND	U	2.04	5.01	ug/L	1	08/9/2012 22:25
Bis(2-Ethylhexyl)phthalate	ND	U	1.95	5.01	ug/L	1	08/9/2012 22:25
4-Bromophenyl phenyl ether	ND	U	2.04	5.01	ug/L	1	08/9/2012 22:25
Butyl benzyl phthalate	ND	U	1.89	5.01	ug/L	1	08/9/2012 22:25
Chrysene	ND	U	2.20	5.01	ug/L	1	08/9/2012 22:25
Di-n-butyl phthalate	ND	U	1.91	5.01	ug/L	1	08/9/2012 22:25
Di-n-octyl phthalate	ND	U	1.46	5.01	ug/L	1	08/9/2012 22:25
Dibenz(a,h)anthracene	ND	U	2.02	5.01	ug/L	1	08/9/2012 22:25
Dibenzofuran	ND	U	2.22	5.01	ug/L	1	08/9/2012 22:25
Diethyl phthalate	ND	U	2.10	5.01	ug/L	1	08/9/2012 22:25

Print Date: 08/17/2012

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**Results of 104DPT-02**

Client Sample ID: 104DPT-02  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489001-D  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 11:11  
 Received Date: 08/03/2012 15:00  
 Matrix: Water

**Results by SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Dimethyl phthalate	ND	U	2.14	5.01	ug/L	1	08/9/2012 22:25
2,4-Dimethylphenol	ND	U	2.21	5.01	ug/L	1	08/9/2012 22:25
Diphenylamine	ND	U	2.02	5.01	ug/L	1	08/9/2012 22:25
Fluoranthene	ND	U	2.02	5.01	ug/L	1	08/9/2012 22:25
Fluorene	ND	U	2.44	5.01	ug/L	1	08/9/2012 22:25
Hexachlorobenzene	ND	U	1.93	5.01	ug/L	1	08/9/2012 22:25
Hexachlorobutadiene	ND	U	1.52	5.01	ug/L	1	08/9/2012 22:25
Hexachlorocyclopentadiene	ND	U	0.790	10.0	ug/L	1	08/9/2012 22:25
Hexachloroethane	ND	U	1.40	5.01	ug/L	1	08/9/2012 22:25
Indeno(1,2,3-cd)pyrene	ND	U	2.02	5.01	ug/L	1	08/9/2012 22:25
Isophorone	ND	U	2.09	5.01	ug/L	1	08/9/2012 22:25
Naphthalene	ND	U	1.94	5.01	ug/L	1	08/9/2012 22:25
4-Nitroaniline	ND	U	1.68	25.1	ug/L	1	08/9/2012 22:25
Nitrobenzene	ND	U	2.19	5.01	ug/L	1	08/9/2012 22:25
4-Nitrophenol	ND	U	1.27	25.1	ug/L	1	08/9/2012 22:25
Pentachlorophenol	ND	U	1.55	25.1	ug/L	1	08/9/2012 22:25
Phenanthrone	ND	U	1.99	5.01	ug/L	1	08/9/2012 22:25
Phenol	ND	U	2.36	5.01	ug/L	1	08/9/2012 22:25
Pyrene	ND	U	2.01	5.01	ug/L	1	08/9/2012 22:25
n-Nitrosodi-n-propylamine	ND	U	2.23	5.01	ug/L	1	08/9/2012 22:25

**Surrogates**

2,4,6-Tribromophenol	113	29.3-152	%	1	08/9/2012 22:25
2-Fluorobiphenyl	81.0	50.0-107	%	1	08/9/2012 22:25
2-Fluorophenol	79.0	33.1-118	%	1	08/9/2012 22:25
Nitrobenzene-d5	89.0	46.0-118	%	1	08/9/2012 22:25
Phenol-d6	93.0	49.0-120	%	1	08/9/2012 22:25
Terphenyl-d14	95.0	22.1-142	%	1	08/9/2012 22:25

**Batch Information**

Analytical Batch: XMS1630  
 Analytical Method: SW-846 8270D  
 Instrument: MSD10  
 Analyst: CMP  
 Analytical Date/Time: 08/09/2012 22:25

Prep Batch: XXX2897  
 Prep Method: SW-846 3520C  
 Prep Date/Time: 08/07/2012 16:58  
 Prep Initial Wt./Vol.: 998 mL  
 Prep Extract Vol: 5 mL

**Results of 104DPT-01 (5.5-6ft)**

Client Sample ID: 104DPT-01 (5.5-6ft)  
Client Project ID: NCDOT Parcel 104  
Lab Sample ID: 31202489002-A  
Lab Project ID: 31202489

Collection Date: 08/02/2012 09:30

Received Date: 08/03/2012 15:00

Matrix: Soil-Solid as dry weight

Solids (%): 85.60

**Results by SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.614	4.33	ug/Kg	1	08/8/2012 11:42
1,1,1-Trichloroethane	ND	U	0.653	4.33	ug/Kg	1	08/8/2012 11:42
1,1,2,2-Tetrachloroethane	ND	U	1.01	4.33	ug/Kg	1	08/8/2012 11:42
1,1,2-Trichloroethane	ND	U	0.901	4.33	ug/Kg	1	08/8/2012 11:42
1,1-Dichloroethane	ND	U	0.466	4.33	ug/Kg	1	08/8/2012 11:42
1,1-Dichloroethene	ND	U	1.00	4.33	ug/Kg	1	08/8/2012 11:42
1,1-Dichloropropene	ND	U	0.586	4.33	ug/Kg	1	08/8/2012 11:42
1,2,3-Trichlorobenzene	ND	U	0.721	4.33	ug/Kg	1	08/8/2012 11:42
1,2,3-Trichloropropane	ND	U	0.892	4.33	ug/Kg	1	08/8/2012 11:42
1,2,4-Trichlorobenzene	ND	U	0.631	4.33	ug/Kg	1	08/8/2012 11:42
1,2,4-Trimethylbenzene	ND	U	0.552	4.33	ug/Kg	1	08/8/2012 11:42
1,2-Dibromo-3-chloropropane	ND	U	6.42	26.0	ug/Kg	1	08/8/2012 11:42
1,2-Dibromoethane	ND	U	1.13	4.33	ug/Kg	1	08/8/2012 11:42
1,2-Dichlorobenzene	ND	U	0.616	4.33	ug/Kg	1	08/8/2012 11:42
1,2-Dichloroethane	ND	U	0.791	4.33	ug/Kg	1	08/8/2012 11:42
1,2-Dichloropropane	ND	U	0.996	4.33	ug/Kg	1	08/8/2012 11:42
1,3,5-Trimethylbenzene	ND	U	0.527	4.33	ug/Kg	1	08/8/2012 11:42
1,3-Dichlorobenzene	ND	U	0.623	4.33	ug/Kg	1	08/8/2012 11:42
1,3-Dichloropropane	ND	U	0.761	4.33	ug/Kg	1	08/8/2012 11:42
1,4-Dichlorobenzene	ND	U	0.585	4.33	ug/Kg	1	08/8/2012 11:42
2,2-Dichloropropane	ND	U	0.639	4.33	ug/Kg	1	08/8/2012 11:42
2-Butanone	ND	U	2.93	21.7	ug/Kg	1	08/8/2012 11:42
2-Chlorotoluene	ND	U	0.812	4.33	ug/Kg	1	08/8/2012 11:42
2-Hexanone	ND	U	2.79	10.8	ug/Kg	1	08/8/2012 11:42
4-Chlorotoluene	ND	U	0.655	4.33	ug/Kg	1	08/8/2012 11:42
4-Isopropyltoluene	ND	U	0.559	4.33	ug/Kg	1	08/8/2012 11:42
4-Methyl-2-pentanone	ND	U	3.24	10.8	ug/Kg	1	08/8/2012 11:42
Acetone	ND	U	3.47	43.3	ug/Kg	1	08/8/2012 11:42
Benzene	ND	U	0.616	4.33	ug/Kg	1	08/8/2012 11:42
Bromobenzene	ND	U	0.604	4.33	ug/Kg	1	08/8/2012 11:42
Bromochloromethane	ND	U	0.814	4.33	ug/Kg	1	08/8/2012 11:42
Bromodichloromethane	ND	U	0.610	4.33	ug/Kg	1	08/8/2012 11:42
Bromoform	ND	U	0.627	4.33	ug/Kg	1	08/8/2012 11:42
Bromomethane	ND	U	1.26	4.33	ug/Kg	1	08/8/2012 11:42
n-Butylbenzene	ND	U	0.569	4.33	ug/Kg	1	08/8/2012 11:42
Carbon disulfide	ND	U	0.453	4.33	ug/Kg	1	08/8/2012 11:42
Carbon tetrachloride	ND	U	0.493	4.33	ug/Kg	1	08/8/2012 11:42
Chlorobenzene	ND	U	0.605	4.33	ug/Kg	1	08/8/2012 11:42
Chloroethane	ND	U	0.866	4.33	ug/Kg	1	08/8/2012 11:42
Chloroform	ND	U	0.552	4.33	ug/Kg	1	08/8/2012 11:42
Chloromethane	ND	U	1.24	4.33	ug/Kg	1	08/8/2012 11:42
Dibromochloromethane	ND	U	0.962	4.33	ug/Kg	1	08/8/2012 11:42
Dibromomethane	ND	U	0.764	4.33	ug/Kg	1	08/8/2012 11:42
Dichlorodifluoromethane	ND	U	0.910	4.33	ug/Kg	1	08/8/2012 11:42

Print Date: 08/17/2012

N.C. Certification # 481

**Results of 104DPT-01 (5.5-6ft)**

Client Sample ID: 104DPT-01 (5.5-6ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489002-A  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 09:30

Received Date: 08/03/2012 15:00

Matrix: Soil-Solid as dry weight

Solids (%): 85.60

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND	U	0.892	4.33	ug/Kg	1	08/8/2012 11:42
trans-1,3-Dichloropropene	ND	U	0.818	4.33	ug/Kg	1	08/8/2012 11:42
Diisopropyl Ether	ND	U	0.711	4.33	ug/Kg	1	08/8/2012 11:42
Ethyl Benzene	ND	U	0.611	4.33	ug/Kg	1	08/8/2012 11:42
Hexachlorobutadiene	ND	U	0.595	4.33	ug/Kg	1	08/8/2012 11:42
Isopropylbenzene (Cumene)	ND	U	0.539	4.33	ug/Kg	1	08/8/2012 11:42
Methyl iodide	ND	U	0.664	4.33	ug/Kg	1	08/8/2012 11:42
Methylene chloride	2.29	J	0.910	17.3	ug/Kg	1	08/8/2012 11:42
Naphthalene	ND	U	0.787	4.33	ug/Kg	1	08/8/2012 11:42
Styrene	ND	U	0.499	4.33	ug/Kg	1	08/8/2012 11:42
Tetrachloroethene	ND	U	0.651	4.33	ug/Kg	1	08/8/2012 11:42
Toluene	ND	U	0.596	4.33	ug/Kg	1	08/8/2012 11:42
Trichloroethene	ND	U	0.729	4.33	ug/Kg	1	08/8/2012 11:42
Trichlorofluoromethane	ND	U	0.875	4.33	ug/Kg	1	08/8/2012 11:42
Vinyl chloride	ND	U	0.823	4.33	ug/Kg	1	08/8/2012 11:42
Xylene (total)	ND	U	1.53	8.66	ug/Kg	1	08/8/2012 11:42
cis-1,2-Dichloroethene	ND	U	0.529	4.33	ug/Kg	1	08/8/2012 11:42
m,p-Xylene	ND	U	1.46	8.66	ug/Kg	1	08/8/2012 11:42
n-Propylbenzene	ND	U	0.634	4.33	ug/Kg	1	08/8/2012 11:42
o-Xylene	ND	U	0.664	4.33	ug/Kg	1	08/8/2012 11:42
sec-Butylbenzene	ND	U	0.520	4.33	ug/Kg	1	08/8/2012 11:42
tert-Butyl methyl ether (MTBE)	ND	U	0.689	4.33	ug/Kg	1	08/8/2012 11:42
tert-Butylbenzene	ND	U	0.583	4.33	ug/Kg	1	08/8/2012 11:42
trans-1,2-Dichloroethene	ND	U	0.632	4.33	ug/Kg	1	08/8/2012 11:42
trans-1,4-Dichloro-2-butene	ND	U	3.64	21.7	ug/Kg	1	08/8/2012 11:42

**Surrogates**

1,2-Dichloroethane-d4	113	55.0-173	%	1	08/8/2012 11:42
4-Bromofluorobenzene	97.0	23.0-141	%	1	08/8/2012 11:42
Toluene d8	104	57.0-134	%	1	08/8/2012 11:42

**Batch Information**

Analytical Batch: VMS2454  
 Analytical Method: SW-846 8260B  
 Instrument: MSD9  
 Analyst: DVO  
 Analytical Date/Time: 08/08/2012 11:42

Prep Batch: VXX3778  
 Prep Method: SW-846 5035 SL  
 Prep Date/Time: 08/06/2012 16:16  
 Prep Initial Wt./Vol.: 6.74 g  
 Prep Extract Vol: 5 mL

**Results of 104DPT-01 (5.5-6ft)**

Client Sample ID: 104DPT-01 (5.5-6ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489002-E  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 09:30

Received Date: 08/03/2012 15:00

Matrix: Soil-Solid as dry weight

Solids (%): 85.60

**Results by SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND	U	33.9	384	ug/Kg	1	08/8/2012 16:21
1,2-Dichlorobenzene	ND	U	19.1	384	ug/Kg	1	08/8/2012 16:21
1,3-Dichlorobenzene	ND	U	25.9	384	ug/Kg	1	08/8/2012 16:21
1,4-Dichlorobenzene	ND	U	27.1	384	ug/Kg	1	08/8/2012 16:21
2,4,5-Trichlorophenol	ND	U	25.6	384	ug/Kg	1	08/8/2012 16:21
2,4,6-Trichlorophenol	ND	U	26.0	384	ug/Kg	1	08/8/2012 16:21
2,4-Dichlorophenol	ND	U	22.2	384	ug/Kg	1	08/8/2012 16:21
2,4-Dinitrophenol	ND	U	35.6	767	ug/Kg	1	08/8/2012 16:21
2,4-Dinitrotoluene	ND	U	19.4	384	ug/Kg	1	08/8/2012 16:21
2,6-Dinitrotoluene	ND	U	27.5	384	ug/Kg	1	08/8/2012 16:21
2-Chloronaphthalene	ND	U	22.6	384	ug/Kg	1	08/8/2012 16:21
2-Chlorophenol	ND	U	20.4	384	ug/Kg	1	08/8/2012 16:21
2-Methylnaphthalene	ND	U	31.0	384	ug/Kg	1	08/8/2012 16:21
2-Methylphenol	ND	U	21.2	384	ug/Kg	1	08/8/2012 16:21
2-Nitroaniline	ND	U	25.3	384	ug/Kg	1	08/8/2012 16:21
2-Nitrophenol	ND	U	18.4	384	ug/Kg	1	08/8/2012 16:21
3 and/or 4-Methylphenol	ND	U	24.9	384	ug/Kg	1	08/8/2012 16:21
3,3'-Dichlorobenzidine	ND	U	18.4	384	ug/Kg	1	08/8/2012 16:21
3-Nitroaniline	ND	U	17.3	384	ug/Kg	1	08/8/2012 16:21
4,6-Dinitro-2-methylphenol	ND	U	18.0	384	ug/Kg	1	08/8/2012 16:21
4-Chloro-3-methylphenol	ND	U	19.1	384	ug/Kg	1	08/8/2012 16:21
4-Chloroaniline	ND	U	30.7	384	ug/Kg	1	08/8/2012 16:21
4-Chlorophenyl phenyl ether	ND	U	41.0	384	ug/Kg	1	08/8/2012 16:21
Acenaphthene	ND	U	17.4	384	ug/Kg	1	08/8/2012 16:21
Acenaphthylene	ND	U	16.2	384	ug/Kg	1	08/8/2012 16:21
Anthracene	ND	U	17.1	384	ug/Kg	1	08/8/2012 16:21
Benzo(a)anthracene	ND	U	21.1	384	ug/Kg	1	08/8/2012 16:21
Benzo(a)pyrene	ND	U	21.7	384	ug/Kg	1	08/8/2012 16:21
Benzo(b)fluoranthene	ND	U	22.1	384	ug/Kg	1	08/8/2012 16:21
Benzo(g,h,i)perylene	ND	U	61.1	384	ug/Kg	1	08/8/2012 16:21
Benzo(k)fluoranthene	ND	U	46.0	384	ug/Kg	1	08/8/2012 16:21
Benzoic acid	ND	U	8.52	384	ug/Kg	1	08/8/2012 16:21
Bis(2-Chloroethoxy)methane	ND	U	17.3	384	ug/Kg	1	08/8/2012 16:21
Bis(2-Chloroethyl)ether	ND	U	35.8	384	ug/Kg	1	08/8/2012 16:21
Bis(2-Chloroisopropyl)ether	ND	U	33.5	384	ug/Kg	1	08/8/2012 16:21
Bis(2-Ethylhexyl)phthalate	ND	U	18.4	384	ug/Kg	1	08/8/2012 16:21
4-Bromophenyl phenyl ether	ND	U	25.3	384	ug/Kg	1	08/8/2012 16:21
Butyl benzyl phthalate	ND	U	33.4	384	ug/Kg	1	08/8/2012 16:21
Chrysene	ND	U	44.7	384	ug/Kg	1	08/8/2012 16:21
Di-n-butyl phthalate	ND	U	18.2	384	ug/Kg	1	08/8/2012 16:21
Di-n-octyl phthalate	ND	U	21.2	384	ug/Kg	1	08/8/2012 16:21
Dibenz(a,h)anthracene	ND	U	17.3	384	ug/Kg	1	08/8/2012 16:21
Dibenzofuran	ND	U	30.1	384	ug/Kg	1	08/8/2012 16:21
Diethyl phthalate	ND	U	20.7	384	ug/Kg	1	08/8/2012 16:21

Print Date: 08/17/2012

N.C. Certification # 481



### Results of 104DPT-01 (5.5-6ft)

Client Sample ID: 104DPT-01 (5.5-6ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489002-E  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 09:30  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 85.60

### Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND	U	29.5	384	ug/Kg	1	08/8/2012 16:21
2,4-Dimethylphenol	ND	U	28.1	384	ug/Kg	1	08/8/2012 16:21
Diphenylamine	ND	U	17.3	384	ug/Kg	1	08/8/2012 16:21
Fluoranthene	ND	U	36.1	384	ug/Kg	1	08/8/2012 16:21
Fluorene	ND	U	20.4	384	ug/Kg	1	08/8/2012 16:21
Hexachlorobenzene	ND	U	36.3	384	ug/Kg	1	08/8/2012 16:21
Hexachlorobutadiene	ND	U	22.9	384	ug/Kg	1	08/8/2012 16:21
Hexachlorocyclopentadiene	ND	U	116	384	ug/Kg	1	08/8/2012 16:21
Hexachloroethane	ND	U	22.1	384	ug/Kg	1	08/8/2012 16:21
Indeno(1,2,3-cd)pyrene	ND	U	29.9	384	ug/Kg	1	08/8/2012 16:21
Isophorone	ND	U	17.4	384	ug/Kg	1	08/8/2012 16:21
Naphthalene	ND	U	33.1	384	ug/Kg	1	08/8/2012 16:21
4-Nitroaniline	ND	U	22.1	384	ug/Kg	1	08/8/2012 16:21
Nitrobenzene	ND	U	22.1	384	ug/Kg	1	08/8/2012 16:21
4-Nitrophenol	ND	U	37.8	384	ug/Kg	1	08/8/2012 16:21
Pentachlorophenol	ND	U	30.7	384	ug/Kg	1	08/8/2012 16:21
Phenanthrene	ND	U	25.3	384	ug/Kg	1	08/8/2012 16:21
Phenol	ND	U	35.8	384	ug/Kg	1	08/8/2012 16:21
Pyrene	ND	U	16.2	384	ug/Kg	1	08/8/2012 16:21
n-Nitrosodi-n-propylamine	ND	U	110	384	ug/Kg	1	08/8/2012 16:21

### Surrogates

2,4,6-Tribromophenol	94.0	41.0-129	%	1	08/8/2012 16:21
2-Fluorobiphenyl	95.0	48.0-123	%	1	08/8/2012 16:21
2-Fluorophenol	88.0	42.0-123	%	1	08/8/2012 16:21
Nitrobenzene-d5	95.0	46.0-117	%	1	08/8/2012 16:21
Phenol-d6	101	48.0-125	%	1	08/8/2012 16:21
Terphenyl-d14	102	44.0-140	%	1	08/8/2012 16:21

### Batch Information

Analytical Batch: XMS1628  
 Analytical Method: SW-846 8270D  
 Instrument: MSD10  
 Analyst: CMP  
 Analytical Date/Time: 08/08/2012 16:21

Prep Batch: XXX2895  
 Prep Method: SW-846 3541  
 Prep Date/Time: 08/07/2012 15:37  
 Prep Initial Wt./Vol.: 30.45 g  
 Prep Extract Vol: 10 mL

**Results of 104DPT-02 (6-6.5ft)**

**Client Sample ID:** 104DPT-02 (6-6.5ft)  
**Client Project ID:** NCDOT Parcel 104  
**Lab Sample ID:** 31202489003-A  
**Lab Project ID:** 31202489

**Collection Date:** 08/02/2012 09:50

**Received Date:** 08/03/2012 15:00

**Matrix:** Soil-Solid as dry weight

**Solids (%):** 90.10

**Results by SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.687	4.84	ug/Kg	1	08/8/2012 12:08
1,1,1-Trichloroethane	ND	U	0.730	4.84	ug/Kg	1	08/8/2012 12:08
1,1,2,2-Tetrachloroethane	ND	U	1.13	4.84	ug/Kg	1	08/8/2012 12:08
1,1,2-Trichloroethane	ND	U	1.01	4.84	ug/Kg	1	08/8/2012 12:08
1,1-Dichloroethane	ND	U	0.521	4.84	ug/Kg	1	08/8/2012 12:08
1,1-Dichloroethene	ND	U	1.12	4.84	ug/Kg	1	08/8/2012 12:08
1,1-Dichloropropene	ND	U	0.655	4.84	ug/Kg	1	08/8/2012 12:08
1,2,3-Trichlorobenzene	ND	U	0.806	4.84	ug/Kg	1	08/8/2012 12:08
1,2,3-Trichloropropane	ND	U	0.998	4.84	ug/Kg	1	08/8/2012 12:08
1,2,4-Trichlorobenzene	ND	U	0.706	4.84	ug/Kg	1	08/8/2012 12:08
1,2,4-Trimethylbenzene	ND	U	0.617	4.84	ug/Kg	1	08/8/2012 12:08
1,2-Dibromo-3-chloropropane	ND	U	7.18	29.1	ug/Kg	1	08/8/2012 12:08
1,2-Dibromoethane	ND	U	1.27	4.84	ug/Kg	1	08/8/2012 12:08
1,2-Dichlorobenzene	ND	U	0.689	4.84	ug/Kg	1	08/8/2012 12:08
1,2-Dichloroethane	ND	U	0.884	4.84	ug/Kg	1	08/8/2012 12:08
1,2-Dichloropropane	ND	U	1.11	4.84	ug/Kg	1	08/8/2012 12:08
1,3,5-Trimethylbenzene	ND	U	0.589	4.84	ug/Kg	1	08/8/2012 12:08
1,3-Dichlorobenzene	ND	U	0.696	4.84	ug/Kg	1	08/8/2012 12:08
1,3-Dichloropropane	ND	U	0.851	4.84	ug/Kg	1	08/8/2012 12:08
1,4-Dichlorobenzene	ND	U	0.654	4.84	ug/Kg	1	08/8/2012 12:08
2,2-Dichloropropane	ND	U	0.715	4.84	ug/Kg	1	08/8/2012 12:08
2-Butanone	ND	U	3.27	24.2	ug/Kg	1	08/8/2012 12:08
2-Chlorotoluene	ND	U	0.908	4.84	ug/Kg	1	08/8/2012 12:08
2-Hexanone	ND	U	3.12	12.1	ug/Kg	1	08/8/2012 12:08
4-Chlorotoluene	ND	U	0.732	4.84	ug/Kg	1	08/8/2012 12:08
4-Isopropyltoluene	ND	U	0.625	4.84	ug/Kg	1	08/8/2012 12:08
4-Methyl-2-pentanone	ND	U	3.62	12.1	ug/Kg	1	08/8/2012 12:08
Acetone	ND	U	3.88	48.4	ug/Kg	1	08/8/2012 12:08
Benzene	ND	U	0.689	4.84	ug/Kg	1	08/8/2012 12:08
Bromobenzene	ND	U	0.675	4.84	ug/Kg	1	08/8/2012 12:08
Bromochloromethane	ND	U	0.910	4.84	ug/Kg	1	08/8/2012 12:08
Bromodichloromethane	ND	U	0.682	4.84	ug/Kg	1	08/8/2012 12:08
Bromoform	ND	U	0.701	4.84	ug/Kg	1	08/8/2012 12:08
Bromomethane	ND	U	1.40	4.84	ug/Kg	1	08/8/2012 12:08
n-Butylbenzene	ND	U	0.636	4.84	ug/Kg	1	08/8/2012 12:08
Carbon disulfide	ND	U	0.507	4.84	ug/Kg	1	08/8/2012 12:08
Carbon tetrachloride	ND	U	0.551	4.84	ug/Kg	1	08/8/2012 12:08
Chlorobenzene	ND	U	0.676	4.84	ug/Kg	1	08/8/2012 12:08
Chloroethane	ND	U	0.969	4.84	ug/Kg	1	08/8/2012 12:08
Chloroform	ND	U	0.617	4.84	ug/Kg	1	08/8/2012 12:08
Chloromethane	ND	U	1.39	4.84	ug/Kg	1	08/8/2012 12:08
Dibromochloromethane	ND	U	1.08	4.84	ug/Kg	1	08/8/2012 12:08
Dibromomethane	ND	U	0.854	4.84	ug/Kg	1	08/8/2012 12:08
Dichlorodifluoromethane	ND	U	1.02	4.84	ug/Kg	1	08/8/2012 12:08

Print Date: 08/17/2012

N.C. Certification # 481



### Results of 104DPT-02 (6-6.5ft)

Client Sample ID: 104DPT-02 (6-6.5ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489003-A  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 09:50  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 90.10

### Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND	U	0.998	4.84	ug/Kg	1	08/8/2012 12:08
trans-1,3-Dichloropropene	ND	U	0.914	4.84	ug/Kg	1	08/8/2012 12:08
Dilisopropyl Ether	ND	U	0.795	4.84	ug/Kg	1	08/8/2012 12:08
Ethyl Benzene	ND	U	0.683	4.84	ug/Kg	1	08/8/2012 12:08
Hexachlorobutadiene	ND	U	0.665	4.84	ug/Kg	1	08/8/2012 12:08
Isopropylbenzene (Cumene)	ND	U	0.602	4.84	ug/Kg	1	08/8/2012 12:08
Methyl iodide	ND	U	0.742	4.84	ug/Kg	1	08/8/2012 12:08
Methylene chloride	2.82	J	1.02	19.4	ug/Kg	1	08/8/2012 12:08
Naphthalene	ND	U	0.880	4.84	ug/Kg	1	08/8/2012 12:08
Styrene	ND	U	0.558	4.84	ug/Kg	1	08/8/2012 12:08
Tetrachloroethene	2.45	J	0.727	4.84	ug/Kg	1	08/8/2012 12:08
Toluene	ND	U	0.666	4.84	ug/Kg	1	08/8/2012 12:08
Trichloroethene	ND	U	0.816	4.84	ug/Kg	1	08/8/2012 12:08
Trichlorofluoromethane	ND	U	0.978	4.84	ug/Kg	1	08/8/2012 12:08
Vinyl chloride	ND	U	0.920	4.84	ug/Kg	1	08/8/2012 12:08
Xylene (total)	ND	U	1.71	9.69	ug/Kg	1	08/8/2012 12:08
cis-1,2-Dichloroethene	ND	U	0.592	4.84	ug/Kg	1	08/8/2012 12:08
m,p-Xylene	ND	U	1.64	9.69	ug/Kg	1	08/8/2012 12:08
n-Propylbenzene	ND	U	0.709	4.84	ug/Kg	1	08/8/2012 12:08
o-Xylene	ND	U	0.742	4.84	ug/Kg	1	08/8/2012 12:08
sec-Butylbenzene	ND	U	0.581	4.84	ug/Kg	1	08/8/2012 12:08
tert-Butyl methyl ether (MTBE)	ND	U	0.770	4.84	ug/Kg	1	08/8/2012 12:08
tert-Butylbenzene	ND	U	0.652	4.84	ug/Kg	1	08/8/2012 12:08
trans-1,2-Dichloroethene	ND	U	0.707	4.84	ug/Kg	1	08/8/2012 12:08
trans-1,4-Dichloro-2-butene	ND	U	4.07	24.2	ug/Kg	1	08/8/2012 12:08

### Surrogates

1,2-Dichloroethane-d4	118	55.0-173	%	1	08/8/2012 12:08
4-Bromofluorobenzene	99.0	23.0-141	%	1	08/8/2012 12:08
Toluene d8	104	57.0-134	%	1	08/8/2012 12:08

### Batch Information

Analytical Batch: VMS2454  
 Analytical Method: SW-846 8260B  
 Instrument: MSD9  
 Analyst: DVO  
 Analytical Date/Time: 08/08/2012 12:08

Prep Batch: VXX3778  
 Prep Method: SW-846 5035 SL  
 Prep Date/Time: 08/06/2012 16:18  
 Prep Initial Wt./Vol.: 5.73 g  
 Prep Extract Vol: 5 mL



### Results of 104DPT-02 (6-6.5ft)

Client Sample ID: 104DPT-02 (6-6.5ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489003-E  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 09:50  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 90.10

### Results by SW-846 8270D

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND	U	31.8	361	ug/Kg	1	08/8/2012 16:44
1,2-Dichlorobenzene	ND	U	18.0	361	ug/Kg	1	08/8/2012 16:44
1,3-Dichlorobenzene	ND	U	24.3	361	ug/Kg	1	08/8/2012 16:44
1,4-Dichlorobenzene	ND	U	25.5	361	ug/Kg	1	08/8/2012 16:44
2,4,5-Trichlorophenol	ND	U	24.1	361	ug/Kg	1	08/8/2012 16:44
2,4,6-Trichlorophenol	ND	U	24.5	361	ug/Kg	1	08/8/2012 16:44
2,4-Dichlorophenol	ND	U	20.9	361	ug/Kg	1	08/8/2012 16:44
2,4-Dinitrophenol	ND	U	33.5	721	ug/Kg	1	08/8/2012 16:44
2,4-Dinitrotoluene	ND	U	18.2	361	ug/Kg	1	08/8/2012 16:44
2,6-Dinitrotoluene	ND	U	25.8	361	ug/Kg	1	08/8/2012 16:44
2-Chloronaphthalene	ND	U	21.2	361	ug/Kg	1	08/8/2012 16:44
2-Chlorophenol	ND	U	19.2	361	ug/Kg	1	08/8/2012 16:44
2-Methylnaphthalene	ND	U	29.2	361	ug/Kg	1	08/8/2012 16:44
2-Methylphenol	ND	U	20.0	361	ug/Kg	1	08/8/2012 16:44
2-Nitroaniline	ND	U	23.8	361	ug/Kg	1	08/8/2012 16:44
2-Nitrophenol	ND	U	17.3	361	ug/Kg	1	08/8/2012 16:44
3 and/or 4-Methylphenol	ND	U	23.4	361	ug/Kg	1	08/8/2012 16:44
3,3'-Dichlorobenzidine	ND	U	17.3	361	ug/Kg	1	08/8/2012 16:44
3-Nitroaniline	ND	U	16.3	361	ug/Kg	1	08/8/2012 16:44
4,6-Dinitro-2-methylphenol	ND	U	17.0	361	ug/Kg	1	08/8/2012 16:44
4-Chloro-3-methylphenol	ND	U	18.0	361	ug/Kg	1	08/8/2012 16:44
4-Chloroaniline	ND	U	28.8	361	ug/Kg	1	08/8/2012 16:44
4-Chlorophenyl phenyl ether	ND	U	38.5	361	ug/Kg	1	08/8/2012 16:44
Acenaphthene	ND	U	16.4	361	ug/Kg	1	08/8/2012 16:44
Acenaphthylene	ND	U	15.2	361	ug/Kg	1	08/8/2012 16:44
Anthracene	ND	U	16.0	361	ug/Kg	1	08/8/2012 16:44
Benzo(a)anthracene	ND	U	19.8	361	ug/Kg	1	08/8/2012 16:44
Benzo(a)pyrene	ND	U	20.4	361	ug/Kg	1	08/8/2012 16:44
Benzo(b)fluoranthene	ND	U	20.8	361	ug/Kg	1	08/8/2012 16:44
Benzo(g,h,i)perylene	ND	U	57.5	361	ug/Kg	1	08/8/2012 16:44
Benzo(k)fluoranthene	ND	U	43.3	361	ug/Kg	1	08/8/2012 16:44
Benzoic acid	ND	U	8.01	361	ug/Kg	1	08/8/2012 16:44
Bis(2-Chloroethoxy)methane	ND	U	16.3	361	ug/Kg	1	08/8/2012 16:44
Bis(2-Chloroethyl)ether	ND	U	33.7	361	ug/Kg	1	08/8/2012 16:44
Bis(2-Chloroisopropyl)ether	ND	U	31.5	361	ug/Kg	1	08/8/2012 16:44
Bis(2-Ethylhexyl)phthalate	ND	U	17.3	361	ug/Kg	1	08/8/2012 16:44
4-Bromophenyl phenyl ether	ND	U	23.8	361	ug/Kg	1	08/8/2012 16:44
Butyl benzyl phthalate	ND	U	31.4	361	ug/Kg	1	08/8/2012 16:44
Chrysene	ND	U	42.0	361	ug/Kg	1	08/8/2012 16:44
Di-n-butyl phthalate	ND	U	17.1	361	ug/Kg	1	08/8/2012 16:44
Di-n-octyl phthalate	ND	U	20.0	361	ug/Kg	1	08/8/2012 16:44
Dibenz(a,h)anthracene	ND	U	16.3	361	ug/Kg	1	08/8/2012 16:44
Dibenzofuran	ND	U	28.3	361	ug/Kg	1	08/8/2012 16:44
Diethyl phthalate	ND	U	19.5	361	ug/Kg	1	08/8/2012 16:44

Print Date: 08/17/2012

N.C. Certification # 481

**Results of 104DPT-02 (6-6.5ft)**

**Client Sample ID:** 104DPT-02 (6-6.5ft)  
**Client Project ID:** NCDOT Parcel 104  
**Lab Sample ID:** 31202489003-E  
**Lab Project ID:** 31202489

**Collection Date:** 08/02/2012 09:50  
**Received Date:** 08/03/2012 15:00  
**Matrix:** Soil-Solid as dry weight  
**Solids (%):** 90.10

**Results by SW-846 8270D**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND	U	27.7	361	ug/Kg	1	08/8/2012 16:44
2,4-Dimethylphenol	ND	U	26.4	361	ug/Kg	1	08/8/2012 16:44
Diphenylamine	ND	U	16.3	361	ug/Kg	1	08/8/2012 16:44
Fluoranthene	ND	U	33.9	361	ug/Kg	1	08/8/2012 16:44
Fluorene	ND	U	19.2	361	ug/Kg	1	08/8/2012 16:44
Hexachlorobenzene	ND	U	34.2	361	ug/Kg	1	08/8/2012 16:44
Hexachlorobutadiene	ND	U	21.6	361	ug/Kg	1	08/8/2012 16:44
Hexachlorocyclopentadiene	ND	U	109	361	ug/Kg	1	08/8/2012 16:44
Hexachloroethane	ND	U	20.8	361	ug/Kg	1	08/8/2012 16:44
Indeno(1,2,3-cd)pyrene	ND	U	28.2	361	ug/Kg	1	08/8/2012 16:44
Isophorone	ND	U	16.4	361	ug/Kg	1	08/8/2012 16:44
Naphthalene	ND	U	31.2	361	ug/Kg	1	08/8/2012 16:44
4-Nitroaniline	ND	U	20.8	361	ug/Kg	1	08/8/2012 16:44
Nitrobenzene	ND	U	20.8	361	ug/Kg	1	08/8/2012 16:44
4-Nitrophenol	ND	U	35.5	361	ug/Kg	1	08/8/2012 16:44
Pentachlorophenol	ND	U	28.8	361	ug/Kg	1	08/8/2012 16:44
Phenanthrene	ND	U	23.8	361	ug/Kg	1	08/8/2012 16:44
Phenol	ND	U	33.7	361	ug/Kg	1	08/8/2012 16:44
Pyrene	ND	U	15.2	361	ug/Kg	1	08/8/2012 16:44
n-Nitrosodi-n-propylamine	ND	U	103	361	ug/Kg	1	08/8/2012 16:44

**Surrogates**

2,4,6-Tribromophenol	98.0	41.0-129	%	1	08/8/2012 16:44
2-Fluorobiphenyl	100	48.0-123	%	1	08/8/2012 16:44
2-Fluorophenol	86.0	42.0-123	%	1	08/8/2012 16:44
Nitrobenzene-d5	95.0	46.0-117	%	1	08/8/2012 16:44
Phenol-d6	100	48.0-125	%	1	08/8/2012 16:44
Terphenyl-d14	103	44.0-140	%	1	08/8/2012 16:44

**Batch Information**

Analytical Batch: XMS1628  
Analytical Method: SW-846 8270D  
Instrument: MSD10  
Analyst: CMP  
Analytical Date/Time: 08/08/2012 16:44

Prep Batch: XXX2895  
Prep Method: SW-846 3541  
Prep Date/Time: 08/07/2012 15:37  
Prep Initial Wt./Vol.: 30.78 g  
Prep Extract Vol: 10 mL

**Results of 104DPT-03 (5.5-6ft)**

Client Sample ID: 104DPT-03 (5.5-6ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489004-A  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:10  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 90.00

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.605	4.26	ug/Kg	1	08/9/2012 19:53
1,1,1-Trichloroethane	ND	U	0.643	4.26	ug/Kg	1	08/9/2012 19:53
1,1,2,2-Tetrachloroethane	ND	U	0.998	4.26	ug/Kg	1	08/9/2012 19:53
1,1,2-Trichloroethane	ND	U	0.887	4.26	ug/Kg	1	08/9/2012 19:53
1,1-Dichloroethane	ND	U	0.459	4.26	ug/Kg	1	08/9/2012 19:53
1,1-Dichloroethene	ND	U	0.989	4.26	ug/Kg	1	08/9/2012 19:53
1,1-Dichloropropene	ND	U	0.577	4.26	ug/Kg	1	08/9/2012 19:53
1,2,3-Trichlorobenzene	ND	U	0.710	4.26	ug/Kg	1	08/9/2012 19:53
1,2,3-Trichloropropane	ND	U	0.879	4.26	ug/Kg	1	08/9/2012 19:53
1,2,4-Trichlorobenzene	ND	U	0.622	4.26	ug/Kg	1	08/9/2012 19:53
1,2,4-Trimethylbenzene	ND	U	0.543	4.26	ug/Kg	1	08/9/2012 19:53
1,2-Dibromo-3-chloropropane	ND	U	6.32	25.6	ug/Kg	1	08/9/2012 19:53
1,2-Dibromoethane	ND	U	1.12	4.26	ug/Kg	1	08/9/2012 19:53
1,2-Dichlorobenzene	ND	U	0.606	4.26	ug/Kg	1	08/9/2012 19:53
1,2-Dichloroethane	ND	U	0.779	4.26	ug/Kg	1	08/9/2012 19:53
1,2-Dichloropropane	ND	U	0.981	4.26	ug/Kg	1	08/9/2012 19:53
1,3,5-Trimethylbenzene	ND	U	0.519	4.26	ug/Kg	1	08/9/2012 19:53
1,3-Dichlorobenzene	ND	U	0.613	4.26	ug/Kg	1	08/9/2012 19:53
1,3-Dichloropropane	ND	U	0.750	4.26	ug/Kg	1	08/9/2012 19:53
1,4-Dichlorobenzene	ND	U	0.576	4.26	ug/Kg	1	08/9/2012 19:53
2,2-Dichloropropane	ND	U	0.629	4.26	ug/Kg	1	08/9/2012 19:53
2-Butanone	ND	U	2.88	21.3	ug/Kg	1	08/9/2012 19:53
2-Chlorotoluene	ND	U	0.799	4.26	ug/Kg	1	08/9/2012 19:53
2-Hexanone	ND	U	2.75	10.7	ug/Kg	1	08/9/2012 19:53
4-Chlorotoluene	ND	U	0.645	4.26	ug/Kg	1	08/9/2012 19:53
4-Isopropyltoluene	ND	U	0.550	4.26	ug/Kg	1	08/9/2012 19:53
4-Methyl-2-pentanone	ND	U	3.19	10.7	ug/Kg	1	08/9/2012 19:53
Acetone	22.1	J	3.42	42.6	ug/Kg	1	08/9/2012 19:53
Benzene	ND	U	0.606	4.26	ug/Kg	1	08/9/2012 19:53
Bromobenzene	ND	U	0.594	4.26	ug/Kg	1	08/9/2012 19:53
Bromochloromethane	ND	U	0.802	4.26	ug/Kg	1	08/9/2012 19:53
Bromodichloromethane	ND	U	0.600	4.26	ug/Kg	1	08/9/2012 19:53
Bromoform	ND	U	0.618	4.26	ug/Kg	1	08/9/2012 19:53
Bromomethane	ND	U	1.24	4.26	ug/Kg	1	08/9/2012 19:53
n-Butylbenzene	ND	U	0.560	4.26	ug/Kg	1	08/9/2012 19:53
Carbon disulfide	ND	U	0.446	4.26	ug/Kg	1	08/9/2012 19:53
Carbon tetrachloride	ND	U	0.485	4.26	ug/Kg	1	08/9/2012 19:53
Chlorobenzene	ND	U	0.595	4.26	ug/Kg	1	08/9/2012 19:53
Chloroethane	ND	U	0.853	4.26	ug/Kg	1	08/9/2012 19:53
Chloroform	ND	U	0.543	4.26	ug/Kg	1	08/9/2012 19:53
Chloromethane	ND	U	1.22	4.26	ug/Kg	1	08/9/2012 19:53
Dibromochloromethane	ND	U	0.947	4.26	ug/Kg	1	08/9/2012 19:53
Dibromomethane	ND	U	0.752	4.26	ug/Kg	1	08/9/2012 19:53
Dichlorodifluoromethane	ND	U	0.896	4.26	ug/Kg	1	08/9/2012 19:53

Print Date: 08/17/2012

N.C. Certification # 481

**Results of 104DPT-03 (5.5-6ft)**

Client Sample ID: 104DPT-03 (5.5-6ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489004-A  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:10  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 90.00

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND	U	0.879	4.26	ug/Kg	1	08/9/2012 19:53
trans-1,3-Dichloropropene	ND	U	0.805	4.26	ug/Kg	1	08/9/2012 19:53
DlIsopropyl Ether	ND	U	0.700	4.26	ug/Kg	1	08/9/2012 19:53
Ethyl Benzene	ND	U	0.601	4.26	ug/Kg	1	08/9/2012 19:53
Hexachlorobutadiene	ND	U	0.586	4.26	ug/Kg	1	08/9/2012 19:53
Isopropylbenzene (Cumene)	ND	U	0.531	4.26	ug/Kg	1	08/9/2012 19:53
Methyl iodide	ND	U	0.653	4.26	ug/Kg	1	08/9/2012 19:53
Methylene chloride	2.36	J	0.896	17.1	ug/Kg	1	08/9/2012 19:53
Naphthalene	ND	U	0.775	4.26	ug/Kg	1	08/9/2012 19:53
Styrene	ND	U	0.491	4.26	ug/Kg	1	08/9/2012 19:53
Tetrachloroethene	55.8		0.641	4.26	ug/Kg	1	08/9/2012 19:53
Toluene	ND	U	0.587	4.26	ug/Kg	1	08/9/2012 19:53
Trichloroethene	1.93	J	0.718	4.26	ug/Kg	1	08/9/2012 19:53
Trichlorofluoromethane	ND	U	0.861	4.26	ug/Kg	1	08/9/2012 19:53
Vinyl chloride	ND	U	0.810	4.26	ug/Kg	1	08/9/2012 19:53
Xylene (total)	ND	U	1.51	8.53	ug/Kg	1	08/9/2012 19:53
cis-1,2-Dichloroethene	ND	U	0.521	4.26	ug/Kg	1	08/9/2012 19:53
m,p-Xylene	ND	U	1.44	8.53	ug/Kg	1	08/9/2012 19:53
n-Propylbenzene	ND	U	0.624	4.26	ug/Kg	1	08/9/2012 19:53
o-Xylene	ND	U	0.653	4.26	ug/Kg	1	08/9/2012 19:53
sec-Butylbenzene	ND	U	0.512	4.26	ug/Kg	1	08/9/2012 19:53
tert-Butyl methyl ether (MTBE)	ND	U	0.678	4.26	ug/Kg	1	08/9/2012 19:53
tert-Butylbenzene	ND	U	0.574	4.26	ug/Kg	1	08/9/2012 19:53
trans-1,2-Dichloroethene	ND	U	0.623	4.26	ug/Kg	1	08/9/2012 19:53
trans-1,4-Dichloro-2-butene	ND	U	3.58	21.3	ug/Kg	1	08/9/2012 19:53

**Surrogates**

1,2-Dichloroethane-d4	117	55.0-173	%	1	08/9/2012 19:53
4-Bromofluorobenzene	97.0	23.0-141	%	1	08/9/2012 19:53
Toluene d8	104	57.0-134	%	1	08/9/2012 19:53

**Batch Information**

Analytical Batch: VMS2459  
 Analytical Method: SW-846 8260B  
 Instrument: MSD9  
 Analyst: DVO  
 Analytical Date/Time: 08/09/2012 19:53

Prep Batch: VXX3787  
 Prep Method: SW-846 5035 SL  
 Prep Date/Time: 08/06/2012 16:21  
 Prep Initial Wt./Vol.: 6.51 g  
 Prep Extract Vol: 5 mL

**Results of 104DPT-03 (5.5-6ft)**

Client Sample ID: 104DPT-03 (5.5-6ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489004-E  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:10

Received Date: 08/03/2012 15:00

Matrix: Soil-Solid as dry weight

Solids (%): 90.00

**Results by SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND	U	30.0	340	ug/Kg	1	08/8/2012 17:07
1,2-Dichlorobenzene	ND	U	16.9	340	ug/Kg	1	08/8/2012 17:07
1,3-Dichlorobenzene	ND	U	22.9	340	ug/Kg	1	08/8/2012 17:07
1,4-Dichlorobenzene	ND	U	24.0	340	ug/Kg	1	08/8/2012 17:07
2,4,5-Trichlorophenol	ND	U	22.7	340	ug/Kg	1	08/8/2012 17:07
2,4,6-Trichlorophenol	ND	U	23.0	340	ug/Kg	1	08/8/2012 17:07
2,4-Dichlorophenol	ND	U	19.7	340	ug/Kg	1	08/8/2012 17:07
2,4-Dinitrophenol	ND	U	31.5	679	ug/Kg	1	08/8/2012 17:07
2,4-Dinitrotoluene	ND	U	17.2	340	ug/Kg	1	08/8/2012 17:07
2,6-Dinitrotoluene	ND	U	24.3	340	ug/Kg	1	08/8/2012 17:07
2-Chloronaphthalene	ND	U	20.0	340	ug/Kg	1	08/8/2012 17:07
2-Chlorophenol	ND	U	18.0	340	ug/Kg	1	08/8/2012 17:07
2-Methylnaphthalene	ND	U	27.5	340	ug/Kg	1	08/8/2012 17:07
2-Methylphenol	ND	U	18.8	340	ug/Kg	1	08/8/2012 17:07
2-Nitroaniline	ND	U	22.4	340	ug/Kg	1	08/8/2012 17:07
2-Nitrophenol	ND	U	16.3	340	ug/Kg	1	08/8/2012 17:07
3 and/or 4-Methylphenol	ND	U	22.1	340	ug/Kg	1	08/8/2012 17:07
3,3'-Dichlorobenzidine	ND	U	16.3	340	ug/Kg	1	08/8/2012 17:07
3-Nitroaniline	ND	U	15.3	340	ug/Kg	1	08/8/2012 17:07
4,6-Dinitro-2-methylphenol	ND	U	16.0	340	ug/Kg	1	08/8/2012 17:07
4-Chloro-3-methylphenol	ND	U	16.9	340	ug/Kg	1	08/8/2012 17:07
4-Chloroaniline	ND	U	27.2	340	ug/Kg	1	08/8/2012 17:07
4-Chlorophenyl phenyl ether	ND	U	36.3	340	ug/Kg	1	08/8/2012 17:07
Acenaphthene	ND	U	15.4	340	ug/Kg	1	08/8/2012 17:07
Acenaphthylene	ND	U	14.3	340	ug/Kg	1	08/8/2012 17:07
Anthracene	ND	U	15.1	340	ug/Kg	1	08/8/2012 17:07
Benzo(a)anthracene	ND	U	18.7	340	ug/Kg	1	08/8/2012 17:07
Benzo(a)pyrene	ND	U	19.2	340	ug/Kg	1	08/8/2012 17:07
Benzo(b)fluoranthene	ND	U	19.6	340	ug/Kg	1	08/8/2012 17:07
Benzo(g,h,i)perylene	ND	U	54.1	340	ug/Kg	1	08/8/2012 17:07
Benzo(k)fluoranthene	ND	U	40.7	340	ug/Kg	1	08/8/2012 17:07
Benzoic acid	ND	U	7.54	340	ug/Kg	1	08/8/2012 17:07
Bis(2-Chloroethoxy)methane	ND	U	15.3	340	ug/Kg	1	08/8/2012 17:07
Bis(2-Chloroethyl)ether	ND	U	31.7	340	ug/Kg	1	08/8/2012 17:07
Bis(2-Chloroisopropyl)ether	ND	U	29.7	340	ug/Kg	1	08/8/2012 17:07
Bis(2-Ethylhexyl)phthalate	ND	U	16.3	340	ug/Kg	1	08/8/2012 17:07
4-Bromophenyl phenyl ether	ND	U	22.4	340	ug/Kg	1	08/8/2012 17:07
Butyl benzyl phthalate	ND	U	29.5	340	ug/Kg	1	08/8/2012 17:07
Chrysene	ND	U	39.5	340	ug/Kg	1	08/8/2012 17:07
Di-n-butyl phthalate	ND	U	16.1	340	ug/Kg	1	08/8/2012 17:07
Di-n-octyl phthalate	ND	U	18.8	340	ug/Kg	1	08/8/2012 17:07
Dibenz(a,h)anthracene	ND	U	15.3	340	ug/Kg	1	08/8/2012 17:07
Dibenzofuran	ND	U	26.6	340	ug/Kg	1	08/8/2012 17:07
Diethyl phthalate	ND	U	18.4	340	ug/Kg	1	08/8/2012 17:07

Print Date: 08/17/2012

N.C. Certification # 481

**Results of 104DPT-03 (5.5-6ft)**

Client Sample ID: 104DPT-03 (5.5-6ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489004-E  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:10  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 90.00

**Results by SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Dimethyl phthalate	ND	U	26.1	340	ug/Kg	1	08/8/2012 17:07
2,4-Dimethylphenol	ND	U	24.9	340	ug/Kg	1	08/8/2012 17:07
Diphenylamine	ND	U	15.3	340	ug/Kg	1	08/8/2012 17:07
Fluoranthene	ND	U	31.9	340	ug/Kg	1	08/8/2012 17:07
Fluorene	ND	U	18.0	340	ug/Kg	1	08/8/2012 17:07
Hexachlorobenzene	ND	U	32.2	340	ug/Kg	1	08/8/2012 17:07
Hexachlorobutadiene	ND	U	20.3	340	ug/Kg	1	08/8/2012 17:07
Hexachlorocyclopentadiene	ND	U	103	340	ug/Kg	1	08/8/2012 17:07
Hexachloroethane	ND	U	19.6	340	ug/Kg	1	08/8/2012 17:07
Indeno(1,2,3-cd)pyrene	ND	U	26.5	340	ug/Kg	1	08/8/2012 17:07
Isophorone	ND	U	15.4	340	ug/Kg	1	08/8/2012 17:07
Naphthalene	ND	U	29.3	340	ug/Kg	1	08/8/2012 17:07
4-Nitroaniline	ND	U	19.6	340	ug/Kg	1	08/8/2012 17:07
Nitrobenzene	ND	U	19.6	340	ug/Kg	1	08/8/2012 17:07
4-Nitrophenol	ND	U	33.5	340	ug/Kg	1	08/8/2012 17:07
Pentachlorophenol	ND	U	27.2	340	ug/Kg	1	08/8/2012 17:07
Phenanthrone	ND	U	22.4	340	ug/Kg	1	08/8/2012 17:07
Phenol	ND	U	31.7	340	ug/Kg	1	08/8/2012 17:07
Pyrene	ND	U	14.3	340	ug/Kg	1	08/8/2012 17:07
n-Nitrosodi-n-propylamine	ND	U	97.3	340	ug/Kg	1	08/8/2012 17:07

**Surrogates**

2,4,6-Tribromophenol	98.0	41.0-129	%	1	08/8/2012 17:07
2-Fluorobiphenyl	94.0	48.0-123	%	1	08/8/2012 17:07
2-Fluorophenol	89.0	42.0-123	%	1	08/8/2012 17:07
Nitrobenzene-d5	94.0	46.0-117	%	1	08/8/2012 17:07
Phenol-d6	102	48.0-125	%	1	08/8/2012 17:07
Terphenyl-d14	101	44.0-140	%	1	08/8/2012 17:07

**Batch Information**

Analytical Batch: XMS1628  
 Analytical Method: SW-846 8270D  
 Instrument: MSD10  
 Analyst: CMP  
 Analytical Date/Time: 08/08/2012 17:07

Prep Batch: XXX2895  
 Prep Method: SW-846 3541  
 Prep Date/Time: 08/07/2012 15:37  
 Prep Initial Wt./Vol.: 32.71 g  
 Prep Extract Vol: 10 mL

**Results of 104DPT-04 (7-ft)**

Client Sample ID: 104DPT-04 (7-ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489005-A  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:20

Received Date: 08/03/2012 15:00

Matrix: Soil-Solid as dry weight

Solids (%): 92.50

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.645	4.55	ug/Kg	1	08/10/2012 18:30
1,1,1-Trichloroethane	ND	U	0.686	4.55	ug/Kg	1	08/10/2012 18:30
1,1,2,2-Tetrachloroethane	ND	U	1.06	4.55	ug/Kg	1	08/10/2012 18:30
1,1,2-Trichloroethane	ND	U	0.946	4.55	ug/Kg	1	08/10/2012 18:30
1,1-Dichloroethane	ND	U	0.489	4.55	ug/Kg	1	08/10/2012 18:30
1,1-Dichloroethene	ND	U	1.06	4.55	ug/Kg	1	08/10/2012 18:30
1,1-Dichloropropene	ND	U	0.615	4.55	ug/Kg	1	08/10/2012 18:30
1,2,3-Trichlorobenzene	ND	U	0.757	4.55	ug/Kg	1	08/10/2012 18:30
1,2,3-Trichloropropane	ND	U	0.937	4.55	ug/Kg	1	08/10/2012 18:30
1,2,4-Trichlorobenzene	ND	U	0.663	4.55	ug/Kg	1	08/10/2012 18:30
1,2,4-Trimethylbenzene	ND	U	0.579	4.55	ug/Kg	1	08/10/2012 18:30
1,2-Dibromo-3-chloropropane	ND	U	6.74	27.3	ug/Kg	1	08/10/2012 18:30
1,2-Dibromoethane	ND	U	1.19	4.55	ug/Kg	1	08/10/2012 18:30
1,2-Dichlorobenzene	ND	U	0.647	4.55	ug/Kg	1	08/10/2012 18:30
1,2-Dichloroethane	ND	U	0.831	4.55	ug/Kg	1	08/10/2012 18:30
1,2-Dichloropropane	ND	U	1.05	4.55	ug/Kg	1	08/10/2012 18:30
1,3,5-Trimethylbenzene	ND	U	0.553	4.55	ug/Kg	1	08/10/2012 18:30
1,3-Dichlorobenzene	ND	U	0.654	4.55	ug/Kg	1	08/10/2012 18:30
1,3-Dichloropropane	ND	U	0.800	4.55	ug/Kg	1	08/10/2012 18:30
1,4-Dichlorobenzene	ND	U	0.614	4.55	ug/Kg	1	08/10/2012 18:30
2,2-Dichloropropane	ND	U	0.671	4.55	ug/Kg	1	08/10/2012 18:30
2-Butanone	ND	U	3.07	22.7	ug/Kg	1	08/10/2012 18:30
2-Chlorotoluene	ND	U	0.852	4.55	ug/Kg	1	08/10/2012 18:30
2-Hexanone	ND	U	2.93	11.4	ug/Kg	1	08/10/2012 18:30
4-Chlorotoluene	ND	U	0.688	4.55	ug/Kg	1	08/10/2012 18:30
4-Isopropyltoluene	ND	U	0.587	4.55	ug/Kg	1	08/10/2012 18:30
4-Methyl-2-pentanone	ND	U	3.40	11.4	ug/Kg	1	08/10/2012 18:30
Acetone	ND	U	3.65	45.5	ug/Kg	1	08/10/2012 18:30
Benzene	ND	U	0.647	4.55	ug/Kg	1	08/10/2012 18:30
Bromobenzene	ND	U	0.634	4.55	ug/Kg	1	08/10/2012 18:30
Bromo(chloromethane)	ND	U	0.855	4.55	ug/Kg	1	08/10/2012 18:30
Bromodichloromethane	ND	U	0.640	4.55	ug/Kg	1	08/10/2012 18:30
Bromoform	ND	U	0.659	4.55	ug/Kg	1	08/10/2012 18:30
Bromomethane	ND	U	1.32	4.55	ug/Kg	1	08/10/2012 18:30
n-Butylbenzene	ND	U	0.598	4.55	ug/Kg	1	08/10/2012 18:30
Carbon disulfide	ND	U	0.476	4.55	ug/Kg	1	08/10/2012 18:30
Carbon tetrachloride	ND	U	0.518	4.55	ug/Kg	1	08/10/2012 18:30
Chlorobenzene	ND	U	0.635	4.55	ug/Kg	1	08/10/2012 18:30
Chloroethane	ND	U	0.910	4.55	ug/Kg	1	08/10/2012 18:30
Chloroform	ND	U	0.579	4.55	ug/Kg	1	08/10/2012 18:30
Chloromethane	ND	U	1.30	4.55	ug/Kg	1	08/10/2012 18:30
Dibromochloromethane	ND	U	1.01	4.55	ug/Kg	1	08/10/2012 18:30
Dibromomethane	ND	U	0.802	4.55	ug/Kg	1	08/10/2012 18:30
Dichlorodifluoromethane	ND	U	0.955	4.55	ug/Kg	1	08/10/2012 18:30

Print Date: 08/17/2012

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### Results of 104DPT-04 (7-ft)

Client Sample ID: 104DPT-04 (7-ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489005-A  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:20  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 92.50

### Results by SW-846 8260B

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND	U	0.937	4.55	ug/Kg	1	08/10/2012 18:30
trans-1,3-Dichloropropene	ND	U	0.859	4.55	ug/Kg	1	08/10/2012 18:30
Diisopropyl Ether	ND	U	0.747	4.55	ug/Kg	1	08/10/2012 18:30
Ethyl Benzene	ND	U	0.641	4.55	ug/Kg	1	08/10/2012 18:30
Hexachlorobutadiene	ND	U	0.625	4.55	ug/Kg	1	08/10/2012 18:30
Isopropylbenzene (Cumene)	ND	U	0.566	4.55	ug/Kg	1	08/10/2012 18:30
Methyl iodide	ND	U	0.697	4.55	ug/Kg	1	08/10/2012 18:30
Methylene chloride	1.57	J	0.955	18.2	ug/Kg	1	08/10/2012 18:30
Naphthalene	ND	U	0.827	4.55	ug/Kg	1	08/10/2012 18:30
Styrene	ND	U	0.524	4.55	ug/Kg	1	08/10/2012 18:30
Tetrachloroethene	9.32		0.683	4.55	ug/Kg	1	08/10/2012 18:30
Toluene	ND	U	0.626	4.55	ug/Kg	1	08/10/2012 18:30
Trichloroethene	ND	U	0.766	4.55	ug/Kg	1	08/10/2012 18:30
Trichlorofluoromethane	ND	U	0.919	4.55	ug/Kg	1	08/10/2012 18:30
Vinyl chloride	ND	U	0.864	4.55	ug/Kg	1	08/10/2012 18:30
Xylene (total)	ND	U	1.61	9.10	ug/Kg	1	08/10/2012 18:30
cis-1,2-Dichloroethene	ND	U	0.556	4.55	ug/Kg	1	08/10/2012 18:30
m,p-Xylene	ND	U	1.54	9.10	ug/Kg	1	08/10/2012 18:30
n-Propylbenzene	ND	U	0.666	4.55	ug/Kg	1	08/10/2012 18:30
o-Xylene	ND	U	0.697	4.55	ug/Kg	1	08/10/2012 18:30
sec-Butylbenzene	ND	U	0.546	4.55	ug/Kg	1	08/10/2012 18:30
tert-Butyl methyl ether (MTBE)	ND	U	0.723	4.55	ug/Kg	1	08/10/2012 18:30
tert-Butylbenzene	ND	U	0.612	4.55	ug/Kg	1	08/10/2012 18:30
trans-1,2-Dichloroethene	ND	U	0.664	4.55	ug/Kg	1	08/10/2012 18:30
trans-1,4-Dichloro-2-butene	ND	U	3.82	22.7	ug/Kg	1	08/10/2012 18:30

### Surrogates

1,2-Dichloroethane-d4	119	55.0-173	%	1	08/10/2012 18:30
4-Bromofluorobenzene	94.0	23.0-141	%	1	08/10/2012 18:30
Toluene d8	105	57.0-134	%	1	08/10/2012 18:30

### Batch Information

Analytical Batch: VMS2464  
 Analytical Method: SW-846 8260B  
 Instrument: MSD9  
 Analyst: DVO  
 Analytical Date/Time: 08/10/2012 18:30

Prep Batch: VXX3802  
 Prep Method: SW-846 5035 SL  
 Prep Date/Time: 08/06/2012 16:24  
 Prep Initial Wt./Vol.: 5.94 g  
 Prep Extract Vol: 5 mL

**Results of 104DPT-04 (7-ft)**

Client Sample ID: 104DPT-04 (7-ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489005-E  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:20  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 92.50

**Results by SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND	U	31.6	359	ug/Kg	1	08/8/2012 17:29
1,2-Dichlorobenzene	ND	U	17.9	359	ug/Kg	1	08/8/2012 17:29
1,3-Dichlorobenzene	ND	U	24.2	359	ug/Kg	1	08/8/2012 17:29
1,4-Dichlorobenzene	ND	U	25.3	359	ug/Kg	1	08/8/2012 17:29
2,4,5-Trichlorophenol	ND	U	23.9	359	ug/Kg	1	08/8/2012 17:29
2,4,6-Trichlorophenol	ND	U	24.3	359	ug/Kg	1	08/8/2012 17:29
2,4-Dichlorophenol	ND	U	20.7	359	ug/Kg	1	08/8/2012 17:29
2,4-Dinitrophenol	ND	U	33.2	716	ug/Kg	1	08/8/2012 17:29
2,4-Dinitrotoluene	ND	U	18.1	359	ug/Kg	1	08/8/2012 17:29
2,6-Dinitrotoluene	ND	U	25.7	359	ug/Kg	1	08/8/2012 17:29
2-Chloronaphthalene	ND	U	21.1	359	ug/Kg	1	08/8/2012 17:29
2-Chlorophenol	ND	U	19.0	359	ug/Kg	1	08/8/2012 17:29
2-Methylnaphthalene	ND	U	29.0	359	ug/Kg	1	08/8/2012 17:29
2-Methylphenol	ND	U	19.8	359	ug/Kg	1	08/8/2012 17:29
2-Nitroaniline	ND	U	23.6	359	ug/Kg	1	08/8/2012 17:29
2-Nitrophenol	ND	U	17.2	359	ug/Kg	1	08/8/2012 17:29
3 and/or 4-Methylphenol	ND	U	23.3	359	ug/Kg	1	08/8/2012 17:29
3,3'-Dichlorobenzidine	ND	U	17.2	359	ug/Kg	1	08/8/2012 17:29
3-Nitroaniline	ND	U	16.2	359	ug/Kg	1	08/8/2012 17:29
4,6-Dinitro-2-methylphenol	ND	U	16.8	359	ug/Kg	1	08/8/2012 17:29
4-Chloro-3-methylphenol	ND	U	17.9	359	ug/Kg	1	08/8/2012 17:29
4-Chloroaniline	ND	U	28.6	359	ug/Kg	1	08/8/2012 17:29
4-Chlorophenyl phenyl ether	ND	U	38.3	359	ug/Kg	1	08/8/2012 17:29
Acenaphthene	ND	U	16.3	359	ug/Kg	1	08/8/2012 17:29
Acenaphthylene	ND	U	15.1	359	ug/Kg	1	08/8/2012 17:29
Anthracene	ND	U	15.9	359	ug/Kg	1	08/8/2012 17:29
Benzo(a)anthracene	ND	U	19.7	359	ug/Kg	1	08/8/2012 17:29
Benzo(a)pyrene	ND	U	20.3	359	ug/Kg	1	08/8/2012 17:29
Benzo(b)fluoranthene	ND	U	20.6	359	ug/Kg	1	08/8/2012 17:29
Benzo(g,h,i)perylene	ND	U	57.0	359	ug/Kg	1	08/8/2012 17:29
Benzo(k)fluoranthene	ND	U	43.0	359	ug/Kg	1	08/8/2012 17:29
Benzoic acid	ND	U	7.95	359	ug/Kg	1	08/8/2012 17:29
Bis(2-Chloroethoxy)methane	ND	U	16.2	359	ug/Kg	1	08/8/2012 17:29
Bis(2-Chloroethyl)ether	ND	U	33.4	359	ug/Kg	1	08/8/2012 17:29
Bis(2-Chloroisopropyl)ether	ND	U	31.3	359	ug/Kg	1	08/8/2012 17:29
Bis(2-Ethylhexyl)phthalate	ND	U	17.2	359	ug/Kg	1	08/8/2012 17:29
4-Bromophenyl phenyl ether	ND	U	23.6	359	ug/Kg	1	08/8/2012 17:29
Butyl benzyl phthalate	ND	U	31.2	359	ug/Kg	1	08/8/2012 17:29
Chrysene	ND	U	41.7	359	ug/Kg	1	08/8/2012 17:29
Di-n-butyl phthalate	ND	U	17.0	359	ug/Kg	1	08/8/2012 17:29
Di-n-octyl phthalate	ND	U	19.8	359	ug/Kg	1	08/8/2012 17:29
Dibenz(a,h)anthracene	ND	U	16.2	359	ug/Kg	1	08/8/2012 17:29
Dibenzofuran	ND	U	28.1	359	ug/Kg	1	08/8/2012 17:29
Diethyl phthalate	ND	U	19.4	359	ug/Kg	1	08/8/2012 17:29

Print Date: 08/17/2012

N.C. Certification # 481

**Results of 104DPT-04 (7-ft)**

Client Sample ID: 104DPT-04 (7-ft)  
Client Project ID: NCDOT Parcel 104  
Lab Sample ID: 31202489005-E  
Lab Project ID: 31202489

Collection Date: 08/02/2012 10:20

Received Date: 08/03/2012 15:00

Matrix: Soil-Solid as dry weight

Solids (%): 92.50

**Results by SW-846 8270D**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND	U	27.5	359	ug/Kg	1	08/8/2012 17:29
2,4-Dimethylphenol	ND	U	26.2	359	ug/Kg	1	08/8/2012 17:29
Diphenylamine	ND	U	16.2	359	ug/Kg	1	08/8/2012 17:29
Fluoranthene	ND	U	33.7	359	ug/Kg	1	08/8/2012 17:29
Fluorene	ND	U	19.0	359	ug/Kg	1	08/8/2012 17:29
Hexachlorobenzene	ND	U	33.9	359	ug/Kg	1	08/8/2012 17:29
Hexachlorobutadiene	ND	U	21.4	359	ug/Kg	1	08/8/2012 17:29
Hexachlorocyclopentadiene	ND	U	108	359	ug/Kg	1	08/8/2012 17:29
Hexachloroethane	ND	U	20.6	359	ug/Kg	1	08/8/2012 17:29
Indeno(1,2,3-cd)pyrene	ND	U	28.0	359	ug/Kg	1	08/8/2012 17:29
Isophorone	ND	U	16.3	359	ug/Kg	1	08/8/2012 17:29
Naphthalene	ND	U	30.9	359	ug/Kg	1	08/8/2012 17:29
4-Nitroaniline	ND	U	20.6	359	ug/Kg	1	08/8/2012 17:29
Nitrobenzene	ND	U	20.6	359	ug/Kg	1	08/8/2012 17:29
4-Nitrophenol	ND	U	35.3	359	ug/Kg	1	08/8/2012 17:29
Pentachlorophenol	ND	U	28.6	359	ug/Kg	1	08/8/2012 17:29
Phenanthrene	ND	U	23.6	359	ug/Kg	1	08/8/2012 17:29
Phenol	ND	U	33.4	359	ug/Kg	1	08/8/2012 17:29
Pyrene	ND	U	15.1	359	ug/Kg	1	08/8/2012 17:29
n-Nitrosodi-n-propylamine	ND	U	103	359	ug/Kg	1	08/8/2012 17:29

**Surrogates**

2,4,6-Tribromophenol	104	41.0-129	%	1	08/8/2012 17:29
2-Fluorobiphenyl	102	48.0-123	%	1	08/8/2012 17:29
2-Fluorophenol	89.0	42.0-123	%	1	08/8/2012 17:29
Nitrobenzene-d5	97.0	46.0-117	%	1	08/8/2012 17:29
Phenol-d6	102	48.0-125	%	1	08/8/2012 17:29
Terphenyl-d14	107	44.0-140	%	1	08/8/2012 17:29

**Batch Information**

Analytical Batch: XMS1628  
Analytical Method: SW-846 8270D  
Instrument: MSD10  
Analyst: CMP  
Analytical Date/Time: 08/08/2012 17:29

Prep Batch: XXX2895  
Prep Method: SW-846 3541  
Prep Date/Time: 08/07/2012 15:37  
Prep Initial Wt./vol.: 30.19 g  
Prep Extract Vol: 10 mL

**Results of 104DPT-05 (7-ft)**

Client Sample ID: 104DPT-05 (7-ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489006-B  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:30

Received Date: 08/03/2012 15:00

Matrix: Soil-Solid as dry weight

Solids (%): 89.90

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.597	4.21	ug/Kg	1	08/8/2012 13:01
1,1,1-Trichloroethane	ND	U	0.635	4.21	ug/Kg	1	08/8/2012 13:01
1,1,2,2-Tetrachloroethane	ND	U	0.985	4.21	ug/Kg	1	08/8/2012 13:01
1,1,2-Trichloroethane	ND	U	0.876	4.21	ug/Kg	1	08/8/2012 13:01
1,1-Dichloroethane	ND	U	0.453	4.21	ug/Kg	1	08/8/2012 13:01
1,1-Dichloroethene	ND	U	0.977	4.21	ug/Kg	1	08/8/2012 13:01
1,1-Dichloropropene	ND	U	0.569	4.21	ug/Kg	1	08/8/2012 13:01
1,2,3-Trichlorobenzene	ND	U	0.700	4.21	ug/Kg	1	08/8/2012 13:01
1,2,3-Trichloropropane	ND	U	0.867	4.21	ug/Kg	1	08/8/2012 13:01
1,2,4-Trichlorobenzene	ND	U	0.614	4.21	ug/Kg	1	08/8/2012 13:01
1,2,4-Trimethylbenzene	ND	U	0.536	4.21	ug/Kg	1	08/8/2012 13:01
1,2-Dibromo-3-chloropropane	ND	U	6.24	25.3	ug/Kg	1	08/8/2012 13:01
1,2-Dibromoethane	ND	U	1.10	4.21	ug/Kg	1	08/8/2012 13:01
1,2-Dichlorobenzene	ND	U	0.599	4.21	ug/Kg	1	08/8/2012 13:01
1,2-Dichloroethane	ND	U	0.769	4.21	ug/Kg	1	08/8/2012 13:01
1,2-Dichloropropane	ND	U	0.968	4.21	ug/Kg	1	08/8/2012 13:01
1,3,5-Trimethylbenzene	ND	U	0.512	4.21	ug/Kg	1	08/8/2012 13:01
1,3-Dichlorobenzene	ND	U	0.605	4.21	ug/Kg	1	08/8/2012 13:01
1,3-Dichloropropane	ND	U	0.740	4.21	ug/Kg	1	08/8/2012 13:01
1,4-Dichlorobenzene	ND	U	0.568	4.21	ug/Kg	1	08/8/2012 13:01
2,2-Dichloropropane	ND	U	0.621	4.21	ug/Kg	1	08/8/2012 13:01
2-Butanone	ND	U	2.85	21.0	ug/Kg	1	08/8/2012 13:01
2-Chlorotoluene	ND	U	0.789	4.21	ug/Kg	1	08/8/2012 13:01
2-Hexanone	ND	U	2.71	10.5	ug/Kg	1	08/8/2012 13:01
4-Chlorotoluene	ND	U	0.636	4.21	ug/Kg	1	08/8/2012 13:01
4-Isopropyltoluene	ND	U	0.543	4.21	ug/Kg	1	08/8/2012 13:01
4-Methyl-2-pantanone	ND	U	3.15	10.5	ug/Kg	1	08/8/2012 13:01
Acetone	4.51	J	3.38	42.1	ug/Kg	1	08/8/2012 13:01
Benzene	ND	U	0.599	4.21	ug/Kg	1	08/8/2012 13:01
Bromobenzene	ND	U	0.587	4.21	ug/Kg	1	08/8/2012 13:01
Bromochloromethane	ND	U	0.791	4.21	ug/Kg	1	08/8/2012 13:01
Bromodichloromethane	ND	U	0.593	4.21	ug/Kg	1	08/8/2012 13:01
Bromoform	ND	U	0.610	4.21	ug/Kg	1	08/8/2012 13:01
Bromomethane	ND	U	1.22	4.21	ug/Kg	1	08/8/2012 13:01
n-Butylbenzene	ND	U	0.553	4.21	ug/Kg	1	08/8/2012 13:01
Carbon disulfide	ND	U	0.440	4.21	ug/Kg	1	08/8/2012 13:01
Carbon tetrachloride	ND	U	0.479	4.21	ug/Kg	1	08/8/2012 13:01
Chlorobenzene	ND	U	0.588	4.21	ug/Kg	1	08/8/2012 13:01
Chloroethane	ND	U	0.842	4.21	ug/Kg	1	08/8/2012 13:01
Chloroform	ND	U	0.536	4.21	ug/Kg	1	08/8/2012 13:01
Chloromethane	ND	U	1.20	4.21	ug/Kg	1	08/8/2012 13:01
Dibromochloromethane	ND	U	0.934	4.21	ug/Kg	1	08/8/2012 13:01
Dibromomethane	ND	U	0.743	4.21	ug/Kg	1	08/8/2012 13:01
Dichlorodifluoromethane	ND	U	0.884	4.21	ug/Kg	1	08/8/2012 13:01

Print Date: 08/17/2012

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**Results of 104DPT-05 (7-8ft)**

Client Sample ID: 104DPT-05 (7-8ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489006-B  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:30  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 89.90

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND	U	0.867	4.21	ug/Kg	1	08/8/2012 13:01
trans-1,3-Dichloropropene	ND	U	0.795	4.21	ug/Kg	1	08/8/2012 13:01
Diisopropyl Ether	ND	U	0.691	4.21	ug/Kg	1	08/8/2012 13:01
Ethyl Benzene	ND	U	0.594	4.21	ug/Kg	1	08/8/2012 13:01
Hexachlorobutadiene	ND	U	0.578	4.21	ug/Kg	1	08/8/2012 13:01
Isopropylbenzene (Cumene)	ND	U	0.524	4.21	ug/Kg	1	08/8/2012 13:01
Methyl iodide	ND	U	0.645	4.21	ug/Kg	1	08/8/2012 13:01
Methylene chloride	ND	U	0.884	16.8	ug/Kg	1	08/8/2012 13:01
Naphthalene	ND	U	0.765	4.21	ug/Kg	1	08/8/2012 13:01
Styrene	ND	U	0.485	4.21	ug/Kg	1	08/8/2012 13:01
Tetrachloroethene	42.0		0.632	4.21	ug/Kg	1	08/8/2012 13:01
Toluene	ND	U	0.579	4.21	ug/Kg	1	08/8/2012 13:01
Trichloroethene	0.817	J	0.709	4.21	ug/Kg	1	08/8/2012 13:01
Trichlorofluoromethane	ND	U	0.850	4.21	ug/Kg	1	08/8/2012 13:01
Vinyl chloride	ND	U	0.800	4.21	ug/Kg	1	08/8/2012 13:01
Xylene (total)	ND	U	1.49	8.42	ug/Kg	1	08/8/2012 13:01
cis-1,2-Dichloroethene	ND	U	0.514	4.21	ug/Kg	1	08/8/2012 13:01
m,p-Xylene	ND	U	1.42	8.42	ug/Kg	1	08/8/2012 13:01
n-Propylbenzene	ND	U	0.616	4.21	ug/Kg	1	08/8/2012 13:01
o-Xylene	ND	U	0.645	4.21	ug/Kg	1	08/8/2012 13:01
sec-Butylbenzene	ND	U	0.505	4.21	ug/Kg	1	08/8/2012 13:01
tert-Butyl methyl ether (MTBE)	ND	U	0.669	4.21	ug/Kg	1	08/8/2012 13:01
tert-Butylbenzene	ND	U	0.567	4.21	ug/Kg	1	08/8/2012 13:01
trans-1,2-Dichloroethene	ND	U	0.615	4.21	ug/Kg	1	08/8/2012 13:01
trans-1,4-Dichloro-2-butene	ND	U	3.54	21.0	ug/Kg	1	08/8/2012 13:01

**Surrogates**

1,2-Dichloroethane-d4	118		55.0-173	%	1	08/8/2012 13:01
4-Bromofluorobenzene	96.0		23.0-141	%	1	08/8/2012 13:01
Toluene d8	104		57.0-134	%	1	08/8/2012 13:01

**Batch Information**

Analytical Batch: VMS2454  
 Analytical Method: SW-846 8260B  
 Instrument: MSD9  
 Analyst: DVO  
 Analytical Date/Time: 08/08/2012 13:01

Prep Batch: VXX3778  
 Prep Method: SW-846 5035 SL  
 Prep Date/Time: 08/06/2012 16:26  
 Prep Initial Wt./Vol.: 6.61 g  
 Prep Extract Vol: 5 mL

**Results of 104DPT-05 (7-ft)**

**Client Sample ID:** 104DPT-05 (7-ft)  
**Client Project ID:** NCDOT Parcel 104  
**Lab Sample ID:** 31202489006-E  
**Lab Project ID:** 31202489

**Collection Date:** 08/02/2012 10:30

**Received Date:** 08/03/2012 15:00

**Matrix:** Soil-Solid as dry weight

**Solids (%):** 89.90

**Results by SW-846 8270D**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	31.3	355	ug/Kg	1	08/8/2012 17:52
1,2-Dichlorobenzene	ND	U	17.7	355	ug/Kg	1	08/8/2012 17:52
1,3-Dichlorobenzene	ND	U	23.9	355	ug/Kg	1	08/8/2012 17:52
1,4-Dichlorobenzene	ND	U	25.1	355	ug/Kg	1	08/8/2012 17:52
2,4,5-Trichlorophenol	ND	U	23.7	355	ug/Kg	1	08/8/2012 17:52
2,4,6-Trichlorophenol	ND	U	24.1	355	ug/Kg	1	08/8/2012 17:52
2,4-Dichlorophenol	ND	U	20.5	355	ug/Kg	1	08/8/2012 17:52
2,4-Dinitrophenol	ND	U	32.9	709	ug/Kg	1	08/8/2012 17:52
2,4-Dinitrotoluene	ND	U	17.9	355	ug/Kg	1	08/8/2012 17:52
2,6-Dinitrotoluene	ND	U	25.4	355	ug/Kg	1	08/8/2012 17:52
2-Chloronaphthalene	ND	U	20.9	355	ug/Kg	1	08/8/2012 17:52
2-Chlorophenol	ND	U	18.8	355	ug/Kg	1	08/8/2012 17:52
2-Methylnaphthalene	ND	U	28.7	355	ug/Kg	1	08/8/2012 17:52
2-Methyphenol	ND	U	19.6	355	ug/Kg	1	08/8/2012 17:52
2-Nitroaniline	ND	U	23.4	355	ug/Kg	1	08/8/2012 17:52
2-Nitrophenol	ND	U	17.0	355	ug/Kg	1	08/8/2012 17:52
3 and/or 4-Methylphenol	ND	U	23.0	355	ug/Kg	1	08/8/2012 17:52
3,3'-Dichlorobenzidine	ND	U	17.0	355	ug/Kg	1	08/8/2012 17:52
3-Nitroaniline	ND	U	16.0	355	ug/Kg	1	08/8/2012 17:52
4,6-Dinitro-2-methylphenol	ND	U	16.7	355	ug/Kg	1	08/8/2012 17:52
4-Chloro-3-methylphenol	ND	U	17.7	355	ug/Kg	1	08/8/2012 17:52
4-Chloroaniline	ND	U	28.4	355	ug/Kg	1	08/8/2012 17:52
4-Chlorophenyl phenyl ether	ND	U	37.9	355	ug/Kg	1	08/8/2012 17:52
Acenaphthene	ND	U	16.1	355	ug/Kg	1	08/8/2012 17:52
Acenaphthylene	ND	U	15.0	355	ug/Kg	1	08/8/2012 17:52
Anthracene	ND	U	15.8	355	ug/Kg	1	08/8/2012 17:52
Benzo(a)anthracene	ND	U	19.5	355	ug/Kg	1	08/8/2012 17:52
Benzo(a)pyrene	ND	U	20.1	355	ug/Kg	1	08/8/2012 17:52
Benzo(b)fluoranthene	ND	U	20.4	355	ug/Kg	1	08/8/2012 17:52
Benzo(g,h,i)perylene	ND	U	56.5	355	ug/Kg	1	08/8/2012 17:52
Benzo(k)fluoranthene	ND	U	42.6	355	ug/Kg	1	08/8/2012 17:52
Benzoinic acid	ND	U	7.88	355	ug/Kg	1	08/8/2012 17:52
Bis(2-Chloroethoxy)methane	ND	U	16.0	355	ug/Kg	1	08/8/2012 17:52
Bis(2-Chloroethyl)ether	ND	U	33.1	355	ug/Kg	1	08/8/2012 17:52
Bis(2-Chloroisopropyl)ether	ND	U	31.0	355	ug/Kg	1	08/8/2012 17:52
Bis(2-Ethylhexyl)phthalate	ND	U	17.0	355	ug/Kg	1	08/8/2012 17:52
4-Bromophenyl phenyl ether	ND	U	23.4	355	ug/Kg	1	08/8/2012 17:52
Butyl benzyl phthalate	ND	U	30.9	355	ug/Kg	1	08/8/2012 17:52
Chrysene	ND	U	41.3	355	ug/Kg	1	08/8/2012 17:52
Di-n-butyl phthalate	ND	U	16.8	355	ug/Kg	1	08/8/2012 17:52
Di-n-octyl phthalate	ND	U	19.6	355	ug/Kg	1	08/8/2012 17:52
Dibenz(a,h)anthracene	ND	U	16.0	355	ug/Kg	1	08/8/2012 17:52
Dibenzofuran	ND	U	27.8	355	ug/Kg	1	08/8/2012 17:52
Diethyl phthalate	ND	U	19.2	355	ug/Kg	1	08/8/2012 17:52

Print Date: 08/17/2012

N.C. Certification # 481

**Results of 104DPT-05 (7-ft)**

Client Sample ID: 104DPT-05 (7-ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489006-E  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:30

Received Date: 08/03/2012 15:00

Matrix: Soil-Solid as dry weight

Solids (%): 89.90

**Results by SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Dimethyl phthalate	ND	U	27.2	355	ug/Kg	1	08/8/2012 17:52
2,4-Dimethylphenol	ND	U	26.0	355	ug/Kg	1	08/8/2012 17:52
Diphenylamine	ND	U	16.0	355	ug/Kg	1	08/8/2012 17:52
Fluoranthene	ND	U	33.4	355	ug/Kg	1	08/8/2012 17:52
Fluorene	ND	U	18.8	355	ug/Kg	1	08/8/2012 17:52
Hexachlorobenzene	ND	U	33.6	355	ug/Kg	1	08/8/2012 17:52
Hexachlorobutadiene	ND	U	21.2	355	ug/Kg	1	08/8/2012 17:52
Hexachlorocyclopentadiene	ND	U	107	355	ug/Kg	1	08/8/2012 17:52
Hexachloroethane	ND	U	20.4	355	ug/Kg	1	08/8/2012 17:52
Indeno(1,2,3-cd)pyrene	ND	U	27.7	355	ug/Kg	1	08/8/2012 17:52
Isophorone	ND	U	16.1	355	ug/Kg	1	08/8/2012 17:52
Naphthalene	ND	U	30.6	355	ug/Kg	1	08/8/2012 17:52
4-Nitroaniline	ND	U	20.4	355	ug/Kg	1	08/8/2012 17:52
Nitrobenzene	ND	U	20.4	355	ug/Kg	1	08/8/2012 17:52
4-Nitrophenol	ND	U	35.0	355	ug/Kg	1	08/8/2012 17:52
Pentachlorophenol	ND	U	28.4	355	ug/Kg	1	08/8/2012 17:52
Phenanthrene	ND	U	23.4	355	ug/Kg	1	08/8/2012 17:52
Phenol	ND	U	33.1	355	ug/Kg	1	08/8/2012 17:52
Pyrene	ND	U	15.0	355	ug/Kg	1	08/8/2012 17:52
n-Nitrosodi-n-propylamine	ND	U	102	355	ug/Kg	1	08/8/2012 17:52

**Surrogates**

2,4,6-Tribromophenol	84.0	41.0-129	%	1	08/8/2012 17:52
2-Fluorobiphenyl	84.0	48.0-123	%	1	08/8/2012 17:52
2-Fluorophenol	77.0	42.0-123	%	1	08/8/2012 17:52
Nitrobenzene-d5	82.0	46.0-117	%	1	08/8/2012 17:52
Phenol-d6	89.0	48.0-125	%	1	08/8/2012 17:52
Terphenyl-d14	87.0	44.0-140	%	1	08/8/2012 17:52

**Batch Information**

Analytical Batch: XMS1628  
 Analytical Method: SW-846 8270D  
 Instrument: MSD10  
 Analyst: CMP  
 Analytical Date/Time: 08/08/2012 17:52

Prep Batch: XXX2895  
 Prep Method: SW-846 3541  
 Prep Date/Time: 08/07/2012 15:37  
 Prep Initial Wt./Vol.: 31.38 g  
 Prep Extract Vol: 10 mL

**Results of 104DPT-06 (7-8ft)**

Client Sample ID: 104DPT-06 (7-8ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489007-A  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:50

Received Date: 08/03/2012 15:00

Matrix: Soil-Solid as dry weight

Solids (%): 94.50

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	U	0.705	4.97	ug/Kg	1	08/8/2012 13:28
1,1,1-Trichloroethane	ND	U	0.750	4.97	ug/Kg	1	08/8/2012 13:28
1,1,2,2-Tetrachloroethane	ND	U	1.16	4.97	ug/Kg	1	08/8/2012 13:28
1,1,2-Trichloroethane	ND	U	1.03	4.97	ug/Kg	1	08/8/2012 13:28
1,1-Dichloroethane	ND	U	0.535	4.97	ug/Kg	1	08/8/2012 13:28
1,1-Dichloroethene	ND	U	1.15	4.97	ug/Kg	1	08/8/2012 13:28
1,1-Dichloropropene	ND	U	0.673	4.97	ug/Kg	1	08/8/2012 13:28
1,2,3-Trichlorobenzene	ND	U	0.828	4.97	ug/Kg	1	08/8/2012 13:28
1,2,3-Trichloropropane	ND	U	1.02	4.97	ug/Kg	1	08/8/2012 13:28
1,2,4-Trichlorobenzene	ND	U	0.725	4.97	ug/Kg	1	08/8/2012 13:28
1,2,4-Trimethylbenzene	ND	U	0.634	4.97	ug/Kg	1	08/8/2012 13:28
1,2-Dibromo-3-chloropropane	ND	U	7.37	29.8	ug/Kg	1	08/8/2012 13:28
1,2-Dibromoethane	ND	U	1.30	4.97	ug/Kg	1	08/8/2012 13:28
1,2-Dichlorobenzene	ND	U	0.707	4.97	ug/Kg	1	08/8/2012 13:28
1,2-Dichloroethane	ND	U	0.908	4.97	ug/Kg	1	08/8/2012 13:28
1,2-Dichloropropane	ND	U	1.14	4.97	ug/Kg	1	08/8/2012 13:28
1,3,5-Trimethylbenzene	ND	U	0.605	4.97	ug/Kg	1	08/8/2012 13:28
1,3-Dichlorobenzene	ND	U	0.715	4.97	ug/Kg	1	08/8/2012 13:28
1,3-Dichloropropane	ND	U	0.875	4.97	ug/Kg	1	08/8/2012 13:28
1,4-Dichlorobenzene	ND	U	0.672	4.97	ug/Kg	1	08/8/2012 13:28
2,2-Dichloropropane	ND	U	0.734	4.97	ug/Kg	1	08/8/2012 13:28
2-Butanone	ND	U	3.36	24.9	ug/Kg	1	08/8/2012 13:28
2-Chlorotoluene	ND	U	0.932	4.97	ug/Kg	1	08/8/2012 13:28
2-Hexanone	ND	U	3.20	12.4	ug/Kg	1	08/8/2012 13:28
4-Chlorotoluene	ND	U	0.752	4.97	ug/Kg	1	08/8/2012 13:28
4-Isopropyltoluene	ND	U	0.642	4.97	ug/Kg	1	08/8/2012 13:28
4-Methyl-2-pentanone	ND	U	3.72	12.4	ug/Kg	1	08/8/2012 13:28
Acetone	ND	U	3.99	49.7	ug/Kg	1	08/8/2012 13:28
Benzene	ND	U	0.707	4.97	ug/Kg	1	08/8/2012 13:28
Bromobenzene	ND	U	0.693	4.97	ug/Kg	1	08/8/2012 13:28
Bromochloromethane	ND	U	0.935	4.97	ug/Kg	1	08/8/2012 13:28
Bromodichloromethane	ND	U	0.700	4.97	ug/Kg	1	08/8/2012 13:28
Bromoform	ND	U	0.720	4.97	ug/Kg	1	08/8/2012 13:28
Bromomethane	ND	U	1.44	4.97	ug/Kg	1	08/8/2012 13:28
n-Butylbenzene	ND	U	0.654	4.97	ug/Kg	1	08/8/2012 13:28
Carbon disulfide	ND	U	0.520	4.97	ug/Kg	1	08/8/2012 13:28
Carbon tetrachloride	ND	U	0.566	4.97	ug/Kg	1	08/8/2012 13:28
Chlorobenzene	ND	U	0.694	4.97	ug/Kg	1	08/8/2012 13:28
Chloroethane	ND	U	0.995	4.97	ug/Kg	1	08/8/2012 13:28
Chloroform	ND	U	0.634	4.97	ug/Kg	1	08/8/2012 13:28
Chloromethane	ND	U	1.42	4.97	ug/Kg	1	08/8/2012 13:28
Dibromochloromethane	ND	U	1.10	4.97	ug/Kg	1	08/8/2012 13:28
Dibromomethane	ND	U	0.878	4.97	ug/Kg	1	08/8/2012 13:28
Dichlorodifluoromethane	ND	U	1.04	4.97	ug/Kg	1	08/8/2012 13:28

Print Date: 08/17/2012

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**Results of 104DPT-06 (7-ft)**

Client Sample ID: 104DPT-06 (7-ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489007-A  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:50  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 94.50

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND	U	1.02	4.97	ug/Kg	1	08/8/2012 13:28
trans-1,3-Dichloropropene	ND	U	0.939	4.97	ug/Kg	1	08/8/2012 13:28
Diisopropyl Ether	ND	U	0.817	4.97	ug/Kg	1	08/8/2012 13:28
Ethyl Benzene	ND	U	0.701	4.97	ug/Kg	1	08/8/2012 13:28
Hexachlorobutadiene	ND	U	0.684	4.97	ug/Kg	1	08/8/2012 13:28
Isopropylbenzene (Cumene)	ND	U	0.619	4.97	ug/Kg	1	08/8/2012 13:28
Methyl Iodide	ND	U	0.762	4.97	ug/Kg	1	08/8/2012 13:28
Methylene chloride	ND	U	1.04	19.9	ug/Kg	1	08/8/2012 13:28
Naphthalene	ND	U	0.904	4.97	ug/Kg	1	08/8/2012 13:28
Styrene	ND	U	0.573	4.97	ug/Kg	1	08/8/2012 13:28
Tetrachloroethene	ND	U	0.747	4.97	ug/Kg	1	08/8/2012 13:28
Toluene	ND	U	0.685	4.97	ug/Kg	1	08/8/2012 13:28
Trichloroethene	ND	U	0.838	4.97	ug/Kg	1	08/8/2012 13:28
Trichlorofluoromethane	ND	U	1.00	4.97	ug/Kg	1	08/8/2012 13:28
Vinyl chloride	ND	U	0.945	4.97	ug/Kg	1	08/8/2012 13:28
Xylene (total)	ND	U	1.76	9.95	ug/Kg	1	08/8/2012 13:28
cis-1,2-Dichloroethene	ND	U	0.608	4.97	ug/Kg	1	08/8/2012 13:28
m,p-Xylene	ND	U	1.68	9.95	ug/Kg	1	08/8/2012 13:28
n-Propylbenzene	ND	U	0.728	4.97	ug/Kg	1	08/8/2012 13:28
o-Xylene	ND	U	0.762	4.97	ug/Kg	1	08/8/2012 13:28
sec-Butylbenzene	ND	U	0.597	4.97	ug/Kg	1	08/8/2012 13:28
tert-Butyl methyl ether (MTBE)	ND	U	0.791	4.97	ug/Kg	1	08/8/2012 13:28
tert-Butylbenzene	ND	U	0.670	4.97	ug/Kg	1	08/8/2012 13:28
trans-1,2-Dichloroethene	ND	U	0.726	4.97	ug/Kg	1	08/8/2012 13:28
trans-1,4-Dichloro-2-butene	ND	U	4.18	24.9	ug/Kg	1	08/8/2012 13:28

**Surrogates**

1,2-Dichloroethane-d4	121	55.0-173	%	1	08/8/2012 13:28
4-Bromofluorobenzene	97.0	23.0-141	%	1	08/8/2012 13:28
Toluene d8	106	57.0-134	%	1	08/8/2012 13:28

**Batch Information**

Analytical Batch: VMS2454  
 Analytical Method: SW-846 8260B  
 Instrument: MSD9  
 Analyst: DVO  
 Analytical Date/Time: 08/08/2012 13:28

Prep Batch: VXX3778  
 Prep Method: SW-846 5035 SL  
 Prep Date/Time: 08/06/2012 16:29  
 Prep Initial Wt./Vol.: 5.32 g  
 Prep Extract Vol: 5 mL

**Results of 104DPT-06 (7-ft)**

Client Sample ID: 104DPT-06 (7-ft)  
Client Project ID: NCDOT Parcel 104  
Lab Sample ID: 31202489007-E  
Lab Project ID: 31202489

Collection Date: 08/02/2012 10:50

Received Date: 08/03/2012 15:00

Matrix: Soil-Solid as dry weight

Solids (%): 94.50

**Results by SW-846 8270D**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	29.5	335	ug/Kg	1	08/8/2012 18:15
1,2-Dichlorobenzene	ND	U	16.7	335	ug/Kg	1	08/8/2012 18:15
1,3-Dichlorobenzene	ND	U	22.6	335	ug/Kg	1	08/8/2012 18:15
1,4-Dichlorobenzene	ND	U	23.6	335	ug/Kg	1	08/8/2012 18:15
2,4,5-Trichlorophenol	ND	U	22.4	335	ug/Kg	1	08/8/2012 18:15
2,4,6-Trichlorophenol	ND	U	22.7	335	ug/Kg	1	08/8/2012 18:15
2,4-Dichlorophenol	ND	U	19.4	335	ug/Kg	1	08/8/2012 18:15
2,4-Dinitrophenol	ND	U	31.0	669	ug/Kg	1	08/8/2012 18:15
2,4-Dinitrotoluene	ND	U	16.9	335	ug/Kg	1	08/8/2012 18:15
2,6-Dinitrotoluene	ND	U	24.0	335	ug/Kg	1	08/8/2012 18:15
2-Chloronaphthalene	ND	U	19.7	335	ug/Kg	1	08/8/2012 18:15
2-Chlorophenol	ND	U	17.8	335	ug/Kg	1	08/8/2012 18:15
2-Methylnaphthalene	ND	U	27.1	335	ug/Kg	1	08/8/2012 18:15
2-Methylphenol	ND	U	18.5	335	ug/Kg	1	08/8/2012 18:15
2-Nitroaniline	ND	U	22.0	335	ug/Kg	1	08/8/2012 18:15
2-Nitrophenol	ND	U	16.0	335	ug/Kg	1	08/8/2012 18:15
3 and/or 4-Methylphenol	ND	U	21.7	335	ug/Kg	1	08/8/2012 18:15
3,3'-Dichlorobenzidine	ND	U	16.0	335	ug/Kg	1	08/8/2012 18:15
3-Nitroaniline	ND	U	15.1	335	ug/Kg	1	08/8/2012 18:15
4,6-Dinitro-2-methylphenol	ND	U	15.7	335	ug/Kg	1	08/8/2012 18:15
4-Chloro-3-methylphenol	ND	U	16.7	335	ug/Kg	1	08/8/2012 18:15
4-Chloroaniline	ND	U	26.7	335	ug/Kg	1	08/8/2012 18:15
4-Chlorophenyl phenyl ether	ND	U	35.7	335	ug/Kg	1	08/8/2012 18:15
Acenaphthene	ND	U	15.2	335	ug/Kg	1	08/8/2012 18:15
Acenaphthylene	ND	U	14.1	335	ug/Kg	1	08/8/2012 18:15
Anthracene	ND	U	14.9	335	ug/Kg	1	08/8/2012 18:15
Benzo(a)anthracene	ND	U	18.4	335	ug/Kg	1	08/8/2012 18:15
Benzo(a)pyrene	ND	U	18.9	335	ug/Kg	1	08/8/2012 18:15
Benzo(b)fluoranthene	ND	U	19.3	335	ug/Kg	1	08/8/2012 18:15
Benzo(g,h,i)perylene	ND	U	53.3	335	ug/Kg	1	08/8/2012 18:15
Benzo(k)fluoranthene	ND	U	40.1	335	ug/Kg	1	08/8/2012 18:15
Benzoic acid	ND	U	7.43	335	ug/Kg	1	08/8/2012 18:15
Bis(2-Chloroethoxy)methane	ND	U	15.1	335	ug/Kg	1	08/8/2012 18:15
Bis(2-Chloroethyl)ether	ND	U	31.2	335	ug/Kg	1	08/8/2012 18:15
Bis(2-Chloroisopropyl)ether	ND	U	29.2	335	ug/Kg	1	08/8/2012 18:15
Bis(2-Ethylhexyl)phthalate	ND	U	16.0	335	ug/Kg	1	08/8/2012 18:15
4-Bromophenyl phenyl ether	ND	U	22.0	335	ug/Kg	1	08/8/2012 18:15
Butyl benzyl phthalate	ND	U	29.1	335	ug/Kg	1	08/8/2012 18:15
Chrysene	ND	U	38.9	335	ug/Kg	1	08/8/2012 18:15
Di-n-butyl phthalate	ND	U	15.8	335	ug/Kg	1	08/8/2012 18:15
Di-n-octyl phthalate	ND	U	18.5	335	ug/Kg	1	08/8/2012 18:15
Dibenz(a,h)anthracene	ND	U	15.1	335	ug/Kg	1	08/8/2012 18:15
Dibenzofuran	ND	U	26.2	335	ug/Kg	1	08/8/2012 18:15
Diethyl phthalate	ND	U	18.1	335	ug/Kg	1	08/8/2012 18:15

Print Date: 08/17/2012

N.C. Certification # 481

**Results of 104DPT-06 (7-ft)**

Client Sample ID: 104DPT-06 (7-ft)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489007-E  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 10:50  
 Received Date: 08/03/2012 15:00  
 Matrix: Soil-Solid as dry weight  
 Solids (%): 94.50

**Results by SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Dimethyl phthalate	ND	U	25.7	335	ug/Kg	1	08/8/2012 18:15
2,4-Dimethylphenol	ND	U	24.5	335	ug/Kg	1	08/8/2012 18:15
Diphenylamine	ND	U	15.1	335	ug/Kg	1	08/8/2012 18:15
Fluoranthene	ND	U	31.5	335	ug/Kg	1	08/8/2012 18:15
Fluorene	ND	U	17.8	335	ug/Kg	1	08/8/2012 18:15
Hexachlorobenzene	ND	U	31.7	335	ug/Kg	1	08/8/2012 18:15
Hexachlorobutadiene	ND	U	20.0	335	ug/Kg	1	08/8/2012 18:15
Hexachlorocyclopentadiene	ND	U	101	335	ug/Kg	1	08/8/2012 18:15
Hexachloroethane	ND	U	19.3	335	ug/Kg	1	08/8/2012 18:15
Indeno(1,2,3-cd)pyrene	ND	U	26.1	335	ug/Kg	1	08/8/2012 18:15
Isophorone	ND	U	15.2	335	ug/Kg	1	08/8/2012 18:15
Naphthalene	ND	U	28.9	335	ug/Kg	1	08/8/2012 18:15
4-Nitroaniline	ND	U	19.3	335	ug/Kg	1	08/8/2012 18:15
Nitrobenzene	ND	U	19.3	335	ug/Kg	1	08/8/2012 18:15
4-Nitrophenol	ND	U	33.0	335	ug/Kg	1	08/8/2012 18:15
Pentachlorophenol	ND	U	26.7	335	ug/Kg	1	08/8/2012 18:15
Phenanthrene	ND	U	22.0	335	ug/Kg	1	08/8/2012 18:15
Phenol	ND	U	31.2	335	ug/Kg	1	08/8/2012 18:15
Pyrene	ND	U	14.1	335	ug/Kg	1	08/8/2012 18:15
n-Nitrosodi-n-propylamine	ND	U	95.9	335	ug/Kg	1	08/8/2012 18:15

**Surrogates**

2,4,6-Tribromophenol	101	41.0-129	%	1	08/8/2012 18:15
2-Fluorobiphenyl	103	48.0-123	%	1	08/8/2012 18:15
2-Fluorophenol	88.0	42.0-123	%	1	08/8/2012 18:15
Nitrobenzene-d5	96.0	46.0-117	%	1	08/8/2012 18:15
Phenol-d6	100	48.0-125	%	1	08/8/2012 18:15
Terphenyl-d14	105	44.0-140	%	1	08/8/2012 18:15

**Batch Information**

Analytical Batch: XMS1628  
 Analytical Method: SW-846 8270D  
 Instrument: MSD10  
 Analyst: CMP  
 Analytical Date/Time: 08/08/2012 18:15

Prep Batch: XXX2895  
 Prep Method: SW-846 3541  
 Prep Date/Time: 08/07/2012 15:37  
 Prep Initial Wt./Vol.: 31.66 g  
 Prep Extract Vol: 10 mL

**Results of Trip Blank (Not on CoC)**

Client Sample ID: Trip Blank (Not on CoC)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489008-A  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 00:00  
 Received Date: 08/03/2012 15:00  
 Matrix: Water

**Results by SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.175	1.00	ug/L	1	08/7/2012 11:39
1,1,1-Trichloroethane	ND	U	0.221	1.00	ug/L	1	08/7/2012 11:39
1,1,2,2-Tetrachloroethane	ND	U	0.223	1.00	ug/L	1	08/7/2012 11:39
1,1,2-Trichloroethane	ND	U	0.216	1.00	ug/L	1	08/7/2012 11:39
1,1-Dichloroethane	ND	U	0.162	1.00	ug/L	1	08/7/2012 11:39
1,1-Dichloroethene	ND	U	0.202	1.00	ug/L	1	08/7/2012 11:39
1,1-Dichloropropene	ND	U	0.176	1.00	ug/L	1	08/7/2012 11:39
1,2,3-Trichlorobenzene	ND	U	0.246	1.00	ug/L	1	08/7/2012 11:39
1,2,3-Trichloropropane	ND	U	0.210	1.00	ug/L	1	08/7/2012 11:39
1,2,4-Trichlorobenzene	ND	U	0.220	1.00	ug/L	1	08/7/2012 11:39
1,2,4-Trimethylbenzene	ND	U	0.179	1.00	ug/L	1	08/7/2012 11:39
1,2-Dibromo-3-chloropropane	ND	U	1.88	5.00	ug/L	1	08/7/2012 11:39
1,2-Dibromoethane	ND	U	0.179	1.00	ug/L	1	08/7/2012 11:39
1,2-Dichlorobenzene	ND	U	0.214	1.00	ug/L	1	08/7/2012 11:39
1,2-Dichloroethane	ND	U	0.139	1.00	ug/L	1	08/7/2012 11:39
1,2-Dichloropropane	ND	U	0.158	1.00	ug/L	1	08/7/2012 11:39
1,3,5-Trimethylbenzene	ND	U	0.159	1.00	ug/L	1	08/7/2012 11:39
1,3-Dichlorobenzene	ND	U	0.180	1.00	ug/L	1	08/7/2012 11:39
1,3-Dichloropropane	ND	U	0.198	1.00	ug/L	1	08/7/2012 11:39
1,4-Dichlorobenzene	ND	U	0.243	1.00	ug/L	1	08/7/2012 11:39
2,2-Dichloropropane	ND	U	0.194	1.00	ug/L	1	08/7/2012 11:39
2-Butanone	ND	U	1.39	25.0	ug/L	1	08/7/2012 11:39
2-Chlorotoluene	ND	U	0.160	1.00	ug/L	1	08/7/2012 11:39
2-Hexanone	ND	U	1.39	5.00	ug/L	1	08/7/2012 11:39
4-Chlorotoluene	ND	U	0.259	1.00	ug/L	1	08/7/2012 11:39
4-Isopropyltoluene	ND	U	0.170	1.00	ug/L	1	08/7/2012 11:39
4-Methyl-2-pentanone	ND	U	1.15	5.00	ug/L	1	08/7/2012 11:39
Acetone	ND	U	2.56	25.0	ug/L	1	08/7/2012 11:39
Benzene	ND	U	0.156	1.00	ug/L	1	08/7/2012 11:39
Bromobenzene	ND	U	0.205	1.00	ug/L	1	08/7/2012 11:39
Bromochloromethane	ND	U	0.134	1.00	ug/L	1	08/7/2012 11:39
Bromodichloromethane	ND	U	0.222	1.00	ug/L	1	08/7/2012 11:39
Bromoform	ND	U	0.208	1.00	ug/L	1	08/7/2012 11:39
Bromomethane	ND	U	0.507	1.00	ug/L	1	08/7/2012 11:39
n-Butylbenzene	ND	U	0.168	1.00	ug/L	1	08/7/2012 11:39
Carbon disulfide	ND	U	0.197	1.00	ug/L	1	08/7/2012 11:39
Carbon tetrachloride	ND	U	0.169	1.00	ug/L	1	08/7/2012 11:39
Chlorobenzene	ND	U	0.158	1.00	ug/L	1	08/7/2012 11:39
Chloroethane	ND	U	0.902	1.00	ug/L	1	08/7/2012 11:39
Chloroform	ND	U	0.205	1.00	ug/L	1	08/7/2012 11:39
Chloromethane	ND	U	0.295	1.00	ug/L	1	08/7/2012 11:39
Dibromochloromethane	ND	U	0.173	1.00	ug/L	1	08/7/2012 11:39
Dibromomethane	ND	U	0.171	1.00	ug/L	1	08/7/2012 11:39
Dichlorodifluoromethane	ND	U	0.283	5.00	ug/L	1	08/7/2012 11:39

Print Date: 08/17/2012

N.C. Certification # 481



### Results of Trip Blank (Not on CoC)

Client Sample ID: Trip Blank (Not on CoC)  
 Client Project ID: NCDOT Parcel 104  
 Lab Sample ID: 31202489008-A  
 Lab Project ID: 31202489

Collection Date: 08/02/2012 00:00  
 Received Date: 08/03/2012 15:00  
 Matrix: Water

### Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	U	0.185	1.00	ug/L	1	08/7/2012 11:39
trans-1,3-Dichloropropene	ND	U	0.167	1.00	ug/L	1	08/7/2012 11:39
Diisopropyl Ether	ND	U	0.134	1.00	ug/L	1	08/7/2012 11:39
Ethyl Benzene	ND	U	0.186	1.00	ug/L	1	08/7/2012 11:39
Hexachlorobutadiene	ND	U	0.365	1.00	ug/L	1	08/7/2012 11:39
Isopropylbenzene (Cumene)	ND	U	0.196	1.00	ug/L	1	08/7/2012 11:39
Methyl iodide	ND	U	0.247	1.00	ug/L	1	08/7/2012 11:39
Methylene chloride	0.350	J	0.199	5.00	ug/L	1	08/7/2012 11:39
Naphthalene	ND	U	0.260	1.00	ug/L	1	08/7/2012 11:39
Styrene	ND	U	0.207	1.00	ug/L	1	08/7/2012 11:39
Tetrachloroethene	ND	U	0.225	1.00	ug/L	1	08/7/2012 11:39
Toluene	0.180	J	0.180	1.00	ug/L	1	08/7/2012 11:39
Trichloroethene	ND	U	0.199	1.00	ug/L	1	08/7/2012 11:39
Trichlorofluoromethane	ND	U	0.308	1.00	ug/L	1	08/7/2012 11:39
Vinyl chloride	ND	U	0.386	1.00	ug/L	1	08/7/2012 11:39
Xylene (total)	ND	U	0.602	2.00	ug/L	1	08/7/2012 11:39
cis-1,2-Dichloroethene	ND	U	0.179	1.00	ug/L	1	08/7/2012 11:39
m,p-Xylene	ND	U	0.407	2.00	ug/L	1	08/7/2012 11:39
n-Propylbenzene	ND	U	0.185	1.00	ug/L	1	08/7/2012 11:39
o-Xylene	ND	U	0.195	1.00	ug/L	1	08/7/2012 11:39
sec-Butylbenzene	ND	U	0.151	1.00	ug/L	1	08/7/2012 11:39
tert-Butyl methyl ether (MTBE)	ND	U	0.195	1.00	ug/L	1	08/7/2012 11:39
tert-Butylbenzene	ND	U	0.239	1.00	ug/L	1	08/7/2012 11:39
trans-1,2-Dichloroethene	ND	U	0.247	1.00	ug/L	1	08/7/2012 11:39
trans-1,4-Dichloro-2-butene	ND	U	1.25	5.00	ug/L	1	08/7/2012 11:39

### Surrogates

1,2-Dichloroethane-d4	101	64.0-140	%	1	08/7/2012 11:39
4-Bromofluorobenzene	99.0	85.0-115	%	1	08/7/2012 11:39
Toluene d8	103	82.0-117	%	1	08/7/2012 11:39

### Batch Information

Analytical Batch: VMS2453  
 Analytical Method: SW-846 8260B  
 Instrument: MSD3  
 Analyst: BWS  
 Analytical Date/Time: 08/07/2012 11:39

Prep Batch: VXX3771  
 Prep Method: SW-846 5030B  
 Prep Date/Time: 08/07/2012 09:36  
 Prep Initial Wt./Vol.: 40 mL  
 Prep Extract Vol: 40 mL

**Batch Summary**

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Prep Batch: VXX3771

Prep Date: 08/07/2012 08:48

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS for HBN 26801 [VXX/3771]	84033	08/07/2012 09:59	VMS2453	MSD3	BWS
LCSD for HBN 26801 [VXX/3771]	84034	08/07/2012 10:24	VMS2453	MSD3	BWS
MB for HBN 26801 [VXX/3771]	84035	08/07/2012 11:14	VMS2453	MSD3	BWS
Trip Blank (Not on CoC)	31202489008	08/07/2012 11:39	VMS2453	MSD3	BWS

**Method Blank**

Blank ID: MB for HBN 26801 [VXX/3771]

Blank Lab ID: 84035

QC for Samples:

31202489008

**Matrix: Water****Results by SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Dichlorodifluoromethane	ND	U	0.283	5.00	ug/L	1
Chloromethane	ND	U	0.295	1.00	ug/L	1
Vinyl chloride	ND	U	0.386	1.00	ug/L	1
Bromomethane	ND	U	0.507	1.00	ug/L	1
Chloroethane	ND	U	0.902	1.00	ug/L	1
Trichlorofluoromethane	ND	U	0.308	1.00	ug/L	1
1,1-Dichloroethene	ND	U	0.202	1.00	ug/L	1
Acetone	ND	U	2.56	25.0	ug/L	1
Methylene chloride	ND	U	0.199	5.00	ug/L	1
trans-1,2-Dichloroethene	ND	U	0.247	1.00	ug/L	1
tert-Butyl methyl ether (MTBE)	ND	U	0.195	1.00	ug/L	1
1,1-Dichloroethane	ND	U	0.162	1.00	ug/L	1
Diisopropyl Ether	ND	U	0.134	1.00	ug/L	1
2,2-Dichloropropane	ND	U	0.194	1.00	ug/L	1
cis-1,2-Dichloroethene	ND	U	0.179	1.00	ug/L	1
2-Butanone	ND	U	1.39	25.0	ug/L	1
Bromochloromethane	ND	U	0.134	1.00	ug/L	1
Chloroform	ND	U	0.205	1.00	ug/L	1
1,1,1-Trichloroethane	ND	U	0.221	1.00	ug/L	1
Carbon tetrachloride	ND	U	0.169	1.00	ug/L	1
1,1-Dichloropropene	ND	U	0.176	1.00	ug/L	1
Benzene	ND	U	0.156	1.00	ug/L	1
1,2-Dichloroethane	ND	U	0.139	1.00	ug/L	1
Trichloroethene	ND	U	0.199	1.00	ug/L	1
1,2-Dichloropropane	ND	U	0.158	1.00	ug/L	1
Dibromomethane	ND	U	0.171	1.00	ug/L	1
Bromodichloromethane	ND	U	0.222	1.00	ug/L	1
cis-1,3-Dichloropropene	ND	U	0.185	1.00	ug/L	1
4-Methyl-2-pentanone	ND	U	1.15	5.00	ug/L	1
Toluene	ND	U	0.180	1.00	ug/L	1
Methyl iodide	ND	U	0.247	1.00	ug/L	1
trans-1,3-Dichloropropene	ND	U	0.167	1.00	ug/L	1
Carbon disulfide	ND	U	0.197	1.00	ug/L	1
1,1,2-Trichloroethane	ND	U	0.216	1.00	ug/L	1
Tetrachloroethene	ND	U	0.225	1.00	ug/L	1
1,3-Dichloropropane	ND	U	0.198	1.00	ug/L	1
2-Hexanone	ND	U	1.39	5.00	ug/L	1
Dibromochloromethane	ND	U	0.173	1.00	ug/L	1
1,2-Dibromoethane	ND	U	0.179	1.00	ug/L	1
Chlorobenzene	ND	U	0.158	1.00	ug/L	1
1,1,1,2-Tetrachloroethane	ND	U	0.175	1.00	ug/L	1
Bromoform	ND	U	0.208	1.00	ug/L	1

Print Date: 08/17/2012

N.C. Certification # 481

**Method Blank**

Blank ID: MB for HBN 26801 [VXX/3771]

Blank Lab ID: 84035

QC for Samples:

31202489008

Matrix: Water

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Bromobenzene	ND	U	0.205	1.00	ug/L	1
1,1,2,2-Tetrachloroethane	ND	U	0.223	1.00	ug/L	1
1,2,3-Trichloropropane	ND	U	0.210	1.00	ug/L	1
Ethyl Benzene	ND	U	0.186	1.00	ug/L	1
m,p-Xylene	ND	U	0.407	2.00	ug/L	1
Styrene	ND	U	0.207	1.00	ug/L	1
o-Xylene	ND	U	0.195	1.00	ug/L	1
Xylene (total)	ND	U	0.602	2.00	ug/L	1
Isopropylbenzene (Cumene)	ND	U	0.196	1.00	ug/L	1
n-Propylbenzene	ND	U	0.185	1.00	ug/L	1
2-Chlorotoluene	ND	U	0.160	1.00	ug/L	1
4-Chlorotoluene	ND	U	0.259	1.00	ug/L	1
1,3,5-Trimethylbenzene	ND	U	0.159	1.00	ug/L	1
tert-Butylbenzene	ND	U	0.239	1.00	ug/L	1
1,2,4-Trimethylbenzene	ND	U	0.179	1.00	ug/L	1
sec-Butylbenzene	ND	U	0.151	1.00	ug/L	1
1,3-Dichlorobenzene	ND	U	0.180	1.00	ug/L	1
4-Isopropyltoluene	ND	U	0.170	1.00	ug/L	1
1,4-Dichlorobenzene	ND	U	0.243	1.00	ug/L	1
1,2-Dichlorobenzene	ND	U	0.214	1.00	ug/L	1
n-Butylbenzene	ND	U	0.168	1.00	ug/L	1
1,2-Dibromo-3-chloropropane	ND	U	1.88	5.00	ug/L	1
1,2,4-Trichlorobenzene	ND	U	0.220	1.00	ug/L	1
Hexachlorobutadiene	ND	U	0.365	1.00	ug/L	1
Naphthalene	ND	U	0.260	1.00	ug/L	1
trans-1,4-Dichloro-2-butene	ND	U	1.25	5.00	ug/L	1
1,2,3-Trichlorobenzene	ND	U	0.246	1.00	ug/L	1
<b>Surrogates</b>						
1,2-Dichloroethane-d4	101			64.0-140	%	1
Toluene d8	102			82.0-117	%	1
4-Bromofluorobenzene	100			85.0-115	%	1

**Batch Information**

Analytical Batch: VMS2453

Analytical Method: SW-846 8260B

Instrument: MSD3

Analyst: BWS

Analytical Date/Time: 8/7/2012 11:14:00AM

Prep Batch: VXX3771

Prep Method: SW-846 5030B

Prep Date/Time: 8/7/2012 8:48:00AM

Prep Initial Wt./Vol.: 40 mL

Prep Extract Vol: 40 mL

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 26801 [VXX/3771]  
Blank Spike Lab ID: 84033  
Date Analyzed: 08/07/2012 09:59

Spike Duplicate ID: LCSD for HBN 26801 [VXX/3771]  
Spike Duplicate Lab ID: 84034  
Date Analyzed: 08/07/2012 10:24  
Matrix: Water

QC for Samples: 31202489008

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (ug/L)			Spike Duplicate (ug/L)			<u>CL</u>	<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>			
Dichlorodifluoromethane	5.00	5.33	107	5.00	4.94	99	33.0-170	7.6	30.00
Chloromethane	5.00	5.83	117	5.00	5.73	115	57.0-132	1.7	30.00
Vinyl chloride	5.00	6.06	121	5.00	5.42	108	59.0-138	11	30.00
Bromomethane	5.00	6.09	122	5.00	6.21	124	51.0-134	2.0	30.00
Chloroethane	5.00	5.90	118	5.00	4.91	98	64.0-145	18	30.00
Trichlorofluoromethane	5.00	6.13	123	5.00	5.85	117	64.0-133	4.7	30.00
1,1-Dichloroethene	5.00	5.49	110	5.00	4.63	93	71.0-128	17	30.00
Acetone	25.0	27.6	111	25.0	22.3	89	52.0-140	21	30.00
Methylene chloride	5.00	5.83	117*	5.00	5.51	110	70.0-113	5.6	30.00
trans-1,2-Dichloroethene	5.00	5.59	112	5.00	5.03	101	57.0-138	11	30.00
tert-Butyl methyl ether (MTBE)	5.00	5.50	110	5.00	5.07	101	47.0-142	8.1	30.00
1,1-Dichloroethane	5.00	5.62	112	5.00	5.31	106	68.0-133	5.7	30.00
Diisopropyl Ether	5.00	5.66	113	5.00	5.17	103	66.0-132	9.0	30.00
2,2-Dichloropropane	5.00	5.99	120	5.00	5.42	108	74.0-125	10	30.00
cis-1,2-Dichloroethene	5.00	5.76	115	5.00	5.36	107	73.0-128	7.2	30.00
2-Butanone	25.0	26.2	105	25.0	24.1	96	58.0-134	8.3	30.00
Bromochloromethane	5.00	6.52	130*	5.00	5.88	118	73.0-128	10	30.00
Chloroform	5.00	5.77	115	5.00	5.17	103	74.0-124	11	30.00
1,1,1-Trichloroethane	5.00	5.73	115	5.00	5.28	106	76.0-119	8.2	30.00
Carbon tetrachloride	5.00	5.95	119	5.00	5.60	112	75.0-120	6.1	30.00
1,1-Dichloropropene	5.00	5.91	118	5.00	5.11	102	76.0-124	15	30.00
Benzene	5.00	5.61	112	5.00	5.28	106	76.0-124	6.1	30.00
1,2-Dichloroethane	5.00	5.75	115	5.00	5.37	107	76.0-119	6.8	30.00
Trichloroethene	5.00	5.42	108	5.00	5.27	105	74.0-121	2.8	30.00
1,2-Dichloropropane	5.00	5.68	114	5.00	5.34	107	74.0-124	6.2	30.00
Dibromomethane	5.00	5.83	117	5.00	5.11	102	71.0-128	13	30.00
Bromodichloromethane	5.00	5.62	112	5.00	5.29	106	72.0-120	6.0	30.00
cis-1,3-Dichloropropene	5.00	5.42	108	5.00	5.00	100	73.0-122	8.1	30.00
4-Methyl-2-pentanone	25.0	26.7	107	25.0	24.8	99	65.0-124	7.4	30.00
Toluene	5.00	5.99	120	5.00	5.48	110	75.0-123	8.9	30.00
Methyl iodide	5.00	5.21	104	5.00	4.88	98	55.0-123	6.5	30.00
trans-1,3-Dichloropropene	5.00	5.91	118	5.00	5.19	104	70.0-125	13	30.00
Carbon disulfide	5.00	5.04	101	5.00	4.41	88	65.0-132	13	30.00
1,1,2-Trichloroethane	5.00	5.64	113	5.00	5.19	104	76.0-121	8.3	30.00

Print Date: 08/17/2012

N.C. Certification # 481

**Blank Spike Summary**

**Blank Spike ID:** LCS for HBN 26801 [VXX/3771]  
**Blank Spike Lab ID:** 84033  
**Date Analyzed:** 08/07/2012 09:59

**Spike Duplicate ID:** LCSD for HBN 26801 [VXX/3771]  
**Spike Duplicate Lab ID:** 84034  
**Date Analyzed:** 08/07/2012 10:24  
**Matrix:** Water

**QC for Samples:** 31202489008

**Results by SW-846 8260B**

<b>Parameter</b>	Blank Spike (ug/L)			Spike Duplicate (ug/L)			<b>CL</b>	<b>RPD (%)</b>	<b>RPD CL</b>
	<b>Spike</b>	<b>Result</b>	<b>Rec (%)</b>	<b>Spike</b>	<b>Result</b>	<b>Rec (%)</b>			
Tetrachloroethene	5.00	5.58	112	5.00	5.08	102	59.0-112	9.4	30.00
1,3-Dichloropropane	5.00	5.44	109	5.00	5.27	105	74.0-120	3.2	30.00
2-Hexanone	25.0	25.5	102	25.0	23.7	95	56.0-133	7.3	30.00
Dibromochloromethane	5.00	5.57	111	5.00	4.99	100	67.0-122	11	30.00
1,2-Dibromoethane	5.00	5.47	109	5.00	5.04	101	74.0-119	8.2	30.00
Chlorobenzene	5.00	5.58	112	5.00	4.97	99	74.0-120	12	30.00
1,1,1,2-Tetrachloroethane	5.00	5.59	112	5.00	5.18	104	73.0-119	7.6	30.00
Bromoform	5.00	5.64	113	5.00	4.96	99	62.0-127	13	30.00
Bromobenzene	5.00	5.45	109	5.00	4.93	99	75.0-120	10	30.00
1,1,2,2-Tetrachloroethane	5.00	5.37	107	5.00	4.78	96	68.0-129	12	30.00
1,2,3-Trichloropropane	5.00	5.26	105	5.00	4.83	97	67.0-126	8.5	30.00
Ethyl Benzene	5.00	5.35	107	5.00	4.93	99	76.0-123	8.2	30.00
m,p-Xylene	10.0	10.7	107	10.0	9.73	97	76.0-124	9.5	30.00
Styrene	5.00	5.34	107	5.00	4.89	98	76.0-121	8.8	30.00
o-Xylene	5.00	5.53	111	5.00	5.29	106	75.0-124	4.4	30.00
Isopropylbenzene (Cumene)	5.00	5.46	109	5.00	5.10	102	77.0-120	6.8	30.00
n-Propylbenzene	5.00	5.39	108	5.00	4.87	97	77.0-123	10	30.00
2-Chlorotoluene	5.00	5.32	106	5.00	5.18	104	74.0-127	2.7	30.00
4-Chlorotoluene	5.00	5.30	106	5.00	4.78	96	77.0-123	10	30.00
1,3,5-Trimethylbenzene	5.00	5.39	108	5.00	4.92	98	76.0-122	9.1	30.00
tert-Butylbenzene	5.00	5.35	107	5.00	4.91	98	67.0-122	8.6	30.00
1,2,4-Trimethylbenzene	5.00	5.41	108	5.00	4.94	99	76.0-124	9.1	30.00
sec-Butylbenzene	5.00	5.40	108	5.00	4.93	99	78.0-121	9.1	30.00
1,3-Dichlorobenzene	5.00	5.33	107	5.00	4.99	100	75.0-120	6.6	30.00
4-Isopropyltoluene	5.00	5.44	109	5.00	4.79	96	77.0-120	13	30.00
1,4-Dichlorobenzene	5.00	5.30	106	5.00	5.10	102	70.0-125	3.8	30.00
1,2-Dichlorobenzene	5.00	5.56	111	5.00	4.93	99	76.0-118	12	30.00
n-Butylbenzene	5.00	5.28	106	5.00	4.69	94	78.0-118	12	30.00
1,2-Dibromo-3-chloropropane	30.0	30.8	103	30.0	27.1	90	62.0-130	13	30.00
1,2,4-Trichlorobenzene	5.00	5.20	104	5.00	4.54	91	72.0-119	14	30.00
Hexachlorobutadiene	5.00	5.26	105	5.00	4.64	93	69.0-121	13	30.00
Naphthalene	5.00	4.98	100	5.00	4.68	94	67.0-122	6.2	30.00
trans-1,4-Dichloro-2-butene	25.0	26.5	106	25.0	23.5	94	61.0-132	12	30.00
1,2,3-Trichlorobenzene	5.00	5.08	102	5.00	4.64	93	68.0-123	9.1	30.00

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 26801 [VXX/3771]  
Blank Spike Lab ID: 84033  
Date Analyzed: 08/07/2012 09:59

Spike Duplicate ID: LCSD for HBN 26801 [VXX/3771]  
Spike Duplicate Lab ID: 84034  
Date Analyzed: 08/07/2012 10:24  
Matrix: Water

QC for Samples: 31202489008

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (%)			Spike Duplicate (%)				<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>CL</u>		
<b>Surrogates</b>									
1,2-Dichloroethane-d4		100			103		64.0-140		
Toluene d8		103			104		82.0-117		
4-Bromofluorobenzene		102			101		85.0-115		

**Batch Information**

Analytical Batch: VMS2453  
Analytical Method: SW-846 8260B  
Instrument: MSD3  
Analyst: BWS

Prep Batch: VXX3771  
Prep Method: SW-846 5030B  
Prep Date/Time: 08/07/2012 08:48  
Spike Init Wt./Vol.: 40 mL Extract Vol: 40 mL  
Dupe Init Wt./Vol.: 40 mL Extract Vol: 40 mL

**Batch Summary**Analytical Method: **SW-846 8260B**Prep Method: **SW-846 5035 SL**Prep Batch: **VXX3778**Prep Date: **08/08/2012 08:22**

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS-S for HBN 26841 [VXX/3778]	84241	08/08/2012 09:28	VMS2454	MSD9	DVO
LCSD-S for HBN 26841 [VXX/3778]	84242	08/08/2012 09:55	VMS2454	MSD9	DVO
MB-S for HBN 26841 [VXX/3778]	84243	08/08/2012 10:48	VMS2454	MSD9	DVO
104DPT-01 (5.5-6ft)	31202489002	08/08/2012 11:42	VMS2454	MSD9	DVO
104DPT-02 (6-6.5ft)	31202489003	08/08/2012 12:08	VMS2454	MSD9	DVO
104DPT-05 (7-8ft)	31202489006	08/08/2012 13:01	VMS2454	MSD9	DVO
104DPT-06 (7-8ft)	31202489007	08/08/2012 13:28	VMS2454	MSD9	DVO
104DPT-02 (6-6.5ft)(83859MS)	84615	08/08/2012 17:35	VMS2454	MSD9	DVO

Print Date: 08/17/2012

N.C. Certification # 481

**Method Blank**

Blank ID: MB-S for HBN 26841 [VXX/3778]

Blank Lab ID: 84243

QC for Samples:

31202489002, 31202489003, 31202489006, 31202489007

Matrix: Soil-Solid as dry weight

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DE</u>
Dichlorodifluoromethane	ND	U	1.05	5.00	ug/Kg	1
Chloromethane	ND	U	1.43	5.00	ug/Kg	1
Vinyl chloride	ND	U	0.950	5.00	ug/Kg	1
Bromomethane	ND	U	1.45	5.00	ug/Kg	1
Chloroethane	ND	U	1.00	5.00	ug/Kg	1
Trichlorofluoromethane	ND	U	1.01	5.00	ug/Kg	1
1,1-Dichloroethene	ND	U	1.16	5.00	ug/Kg	1
Acetone	ND	U	4.01	50.0	ug/Kg	1
Methylene chloride	3.48	J	1.05	20.0	ug/Kg	1
trans-1,2-Dichloroethene	ND	U	0.730	5.00	ug/Kg	1
tert-Butyl methyl ether (MTBE)	ND	U	0.795	5.00	ug/Kg	1
1,1-Dichloroethane	ND	U	0.538	5.00	ug/Kg	1
Diisopropyl Ether	ND	U	0.821	5.00	ug/Kg	1
2,2-Dichloropropane	ND	U	0.738	5.00	ug/Kg	1
cis-1,2-Dichloroethene	ND	U	0.611	5.00	ug/Kg	1
2-Butanone	ND	U	3.38	25.0	ug/Kg	1
Bromochloromethane	ND	U	0.940	5.00	ug/Kg	1
Chloroform	ND	U	0.637	5.00	ug/Kg	1
1,1,1-Trichloroethane	ND	U	0.754	5.00	ug/Kg	1
Carbon tetrachloride	ND	U	0.569	5.00	ug/Kg	1
1,1-Dichloropropene	ND	U	0.676	5.00	ug/Kg	1
Benzene	ND	U	0.711	5.00	ug/Kg	1
1,2-Dichloroethane	ND	U	0.913	5.00	ug/Kg	1
Trichloroethene	ND	U	0.842	5.00	ug/Kg	1
1,2-Dichloropropane	ND	U	1.15	5.00	ug/Kg	1
Dibromomethane	ND	U	0.882	5.00	ug/Kg	1
Bromodichloromethane	ND	U	0.704	5.00	ug/Kg	1
cis-1,3-Dichloropropene	ND	U	1.03	5.00	ug/Kg	1
4-Methyl-2-pentanone	ND	U	3.74	12.5	ug/Kg	1
Toluene	ND	U	0.688	5.00	ug/Kg	1
Methyl iodide	ND	U	0.766	5.00	ug/Kg	1
trans-1,3-Dichloropropene	ND	U	0.944	5.00	ug/Kg	1
Carbon disulfide	ND	U	0.523	5.00	ug/Kg	1
1,1,2-Trichloroethane	ND	U	1.04	5.00	ug/Kg	1
Tetrachloroethene	ND	U	0.751	5.00	ug/Kg	1
1,3-Dichloropropane	ND	U	0.879	5.00	ug/Kg	1
2-Hexanone	ND	U	3.22	12.5	ug/Kg	1
Dibromochloromethane	ND	U	1.11	5.00	ug/Kg	1
1,2-Dibromoethane	ND	U	1.31	5.00	ug/Kg	1
Chlorobenzene	ND	U	0.698	5.00	ug/Kg	1
1,1,1,2-Tetrachloroethane	ND	U	0.709	5.00	ug/Kg	1
Bromoform	ND	U	0.724	5.00	ug/Kg	1

Print Date: 08/17/2012

N.C. Certification # 481

**Method Blank**

Blank ID: MB-S for HBN 26841 [VXX/3778]

Blank Lab ID: 84243

QC for Samples:

31202489002, 31202489003, 31202489006, 31202489007

Matrix: Soil-Solid as dry weight

**Results by SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Bromobenzene	ND	U	0.697	5.00	ug/Kg	1
1,1,2,2-Tetrachloroethane	ND	U	1.17	5.00	ug/Kg	1
1,2,3-Trichloropropane	ND	U	1.03	5.00	ug/Kg	1
Ethyl Benzene	ND	U	0.705	5.00	ug/Kg	1
m,p-Xylene	ND	U	1.69	10.0	ug/Kg	1
Styrene	ND	U	0.576	5.00	ug/Kg	1
o-Xylene	ND	U	0.766	5.00	ug/Kg	1
Xylene (total)	ND	U	1.77	10.0	ug/Kg	1
Isopropylbenzene (Cumene)	ND	U	0.622	5.00	ug/Kg	1
n-Propylbenzene	ND	U	0.732	5.00	ug/Kg	1
2-Chlorotoluene	ND	U	0.937	5.00	ug/Kg	1
4-Chlorotoluene	ND	U	0.756	5.00	ug/Kg	1
1,3,5-Trimethylbenzene	ND	U	0.608	5.00	ug/Kg	1
tert-Butylbenzene	ND	U	0.673	5.00	ug/Kg	1
1,2,4-Trimethylbenzene	ND	U	0.637	5.00	ug/Kg	1
sec-Butylbenzene	ND	U	0.600	5.00	ug/Kg	1
1,3-Dichlorobenzene	ND	U	0.719	5.00	ug/Kg	1
4-Isopropyltoluene	ND	U	0.645	5.00	ug/Kg	1
1,4-Dichlorobenzene	ND	U	0.675	5.00	ug/Kg	1
1,2-Dichlorobenzene	ND	U	0.711	5.00	ug/Kg	1
n-Butylbenzene	ND	U	0.657	5.00	ug/Kg	1
1,2-Dibromo-3-chloropropane	ND	U	7.41	30.0	ug/Kg	1
1,2,4-Trichlorobenzene	ND	U	0.729	5.00	ug/Kg	1
Hexachlorobutadiene	ND	U	0.687	5.00	ug/Kg	1
Naphthalene	ND	U	0.909	5.00	ug/Kg	1
trans-1,4-Dichloro-2-butene	ND	U	4.20	25.0	ug/Kg	1
1,2,3-Trichlorobenzene	ND	U	0.832	5.00	ug/Kg	1
<b>Surrogates</b>						
1,2-Dichloroethane-d4	107			55.0-173	%	1
Toluene d8	106			57.0-134	%	1
4-Bromofluorobenzene	97.0			23.0-141	%	1

**Batch Information**

Analytical Batch: VMS2454  
 Analytical Method: SW-846 8260B  
 Instrument: MSD9  
 Analyst: DVO  
 Analytical Date/Time: 8/8/2012 10:48:00AM

Prep Batch: VXX3778  
 Prep Method: SW-846 5035 SL  
 Prep Date/Time: 8/8/2012 8:22:20AM  
 Prep Initial Wt./Vol.: 5 g  
 Prep Extract Vol: 5 mL

Print Date: 08/17/2012

N.C. Certification # 481

**Blank Spike Summary**

Blank Spike ID: LCS-S for HBN 26841 [VXX/3778]

Blank Spike Lab ID: 84241

Date Analyzed: 08/08/2012 09:28

Spike Duplicate D: LCSD-S for HBN 26841

[VXX/3778]

Spike Duplicate Lab ID: 84242

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489002, 31202489003, 31202489006, 31202489007

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)			<u>CL</u>	<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>			
Dichlorodifluoromethane	30.0	32.1	107	30.0	31.9	106	52.0-133	0.63	30.00
Chloromethane	30.0	30.0	100	30.0	30.9	103	64.0-126	3.0	30.00
Vinyl chloride	30.0	30.5	102	30.0	31.5	105	69.0-120	3.2	30.00
Bromomethane	30.0	22.1	74	30.0	34.9	116	41.0-160	45*	30.00
Chloroethane	30.0	34.6	115	30.0	36.9	123	69.0-126	6.4	30.00
Trichlorofluoromethane	30.0	33.3	111	30.0	32.9	110	72.0-123	1.2	30.00
1,1-Dichloroethene	30.0	30.2	101	30.0	30.2	101	78.0-113	0.0	30.00
Acetone	75.0	80.8	108	75.0	71.1	95	0.00-243	13	30.00
Methylene chloride	30.0	28.1	94	30.0	28.3	94	40.0-156	0.71	30.00
trans-1,2-Dichloroethene	30.0	29.8	99	30.0	29.5	98	78.0-111	1.0	30.00
tert-Butyl methyl ether (MTBE)	30.0	29.0	97	30.0	27.4	91	68.0-138	5.7	30.00
1,1-Dichloroethane	30.0	29.1	97	30.0	29.5	98	71.0-121	1.4	30.00
Diisopropyl Ether	30.0	29.5	98	30.0	29.3	98	60.0-141	0.68	30.00
2,2-Dichloropropane	30.0	27.6	92	30.0	27.6	92	79.0-127	0.0	30.00
cis-1,2-Dichloroethene	30.0	30.7	102	30.0	31.1	104	80.0-114	1.3	30.00
2-Butanone	75.0	80.6	108	75.0	62.6	83	31.0-189	25	30.00
Bromochloromethane	30.0	31.3	104	30.0	30.0	100	81.0-115	4.2	30.00
Chloroform	30.0	29.6	99	30.0	30.5	102	76.0-114	3.0	30.00
1,1,1-Trichloroethane	30.0	29.1	97	30.0	29.3	98	79.0-117	0.68	30.00
Carbon tetrachloride	30.0	28.4	95	30.0	28.3	94	82.0-119	0.35	30.00
1,1-Dichloropropene	30.0	29.1	97	30.0	29.4	98	82.0-114	1.0	30.00
Benzene	30.0	29.1	97	30.0	29.2	97	82.0-113	0.34	30.00
1,2-Dichloroethane	30.0	30.1	100	30.0	28.8	96	72.0-126	4.4	30.00
Trichloroethene	30.0	28.9	96	30.0	29.3	98	82.0-108	1.4	30.00
1,2-Dichloropropane	30.0	28.3	94	30.0	28.4	95	78.0-116	0.35	30.00
Dibromomethane	30.0	29.9	100	30.0	28.1	94	79.0-125	6.2	30.00
Bromodichloromethane	30.0	28.0	93	30.0	28.1	94	79.0-122	0.36	30.00
cis-1,3-Dichloropropene	30.0	26.8	89	30.0	25.7	86	75.0-127	4.2	30.00
4-Methyl-2-pentanone	75.0	76.3	102	75.0	61.2	82	57.0-159	22	30.00
Toluene	30.0	29.4	98	30.0	29.8	99	83.0-111	1.4	30.00
Methyl iodide	30.0	19.2	64	30.0	23.3	78	63.0-137	19	30.00
trans-1,3-Dichloropropene	30.0	26.8	89	30.0	25.0	83	75.0-134	6.9	30.00
Carbon disulfide	30.0	27.1	90	30.0	28.3	94	72.0-116	4.3	30.00
1,1,2-Trichloroethane	30.0	30.1	100	30.0	27.7	92	73.0-121	8.3	30.00

**Blank Spike Summary**

Blank Spike ID: LCS-S for HBN 26841 [VXX/3778]

Blank Spike Lab ID: 84241

Date Analyzed: 08/08/2012 09:28

Spike Duplicate ID: LCSD-S for HBN 26841

[VXX/3778]

Spike Duplicate Lab ID: 84242

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489002, 31202489003, 31202489006, 31202489007

**Results by SW-846 8260B**

Parameter	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Tetrachloroethene	30.0	28.4	95	30.0	28.9	96	60.0-118	1.7	30.00
1,3-Dichloropropane	30.0	29.8	99	30.0	27.8	93	76.0-121	6.9	30.00
2-Hexanone	75.0	74.6	99	75.0	59.0	79	41.0-171	23	30.00
Dibromochloromethane	30.0	27.9	93	30.0	25.2	84	77.0-126	10	30.00
1,2-Dibromoethane	30.0	30.6	102	30.0	26.3	88	76.0-125	15	30.00
Chlorobenzene	30.0	28.2	94	30.0	28.4	95	78.0-109	0.71	30.00
1,1,1,2-Tetrachloroethane	30.0	27.3	91	30.0	26.9	90	81.0-117	1.5	30.00
Bromoform	30.0	27.1	90	30.0	23.5	78	72.0-134	14	30.00
Bromobenzene	30.0	28.2	94	30.0	28.4	95	76.0-113	0.71	30.00
1,1,2,2-Tetrachloroethane	30.0	30.4	101	30.0	26.0	87	76.0-129	16	30.00
1,2,3-Trichloropropane	30.0	30.8	103	30.0	26.8	89	70.0-145	14	30.00
Ethyl Benzene	30.0	29.0	97	30.0	28.1	94	72.0-115	3.2	30.00
m,p-Xylene	60.0	59.1	99	60.0	57.7	96	73.0-114	2.4	30.00
Styrene	30.0	29.6	99	30.0	28.4	95	74.0-114	4.1	30.00
o-Xylene	30.0	29.8	99	30.0	28.9	96	74.0-113	3.1	30.00
Isopropylbenzene (Cumene)	30.0	29.3	98	30.0	28.7	96	72.0-115	2.1	30.00
n-Propylbenzene	30.0	29.7	99	30.0	29.0	97	71.0-117	2.4	30.00
2-Chlorotoluene	30.0	29.5	98	30.0	28.7	96	76.0-111	2.7	30.00
4-Chlorotoluene	30.0	29.6	99	30.0	29.5	98	75.0-113	0.34	30.00
1,3,5-Trimethylbenzene	30.0	29.0	97	30.0	28.4	95	72.0-115	2.1	30.00
tert-Butylbenzene	30.0	28.7	96	30.0	28.1	94	74.0-112	2.1	30.00
1,2,4-Trimethylbenzene	30.0	29.2	97	30.0	28.3	94	73.0-114	3.1	30.00
sec-Butylbenzene	30.0	28.5	95	30.0	27.9	93	72.0-115	2.1	30.00
1,3-Dichlorobenzene	30.0	29.1	97	30.0	28.2	94	75.0-110	3.1	30.00
4-Isopropyltoluene	30.0	28.5	95	30.0	28.0	93	73.0-114	1.8	30.00
1,4-Dichlorobenzene	30.0	29.6	99	30.0	28.9	96	76.0-110	2.4	30.00
1,2-Dichlorobenzene	30.0	30.1	100	30.0	28.6	95	77.0-109	5.1	30.00
n-Butylbenzene	30.0	28.7	96	30.0	28.4	95	72.0-118	1.1	30.00
1,2-Dibromo-3-chloropropane	180	182	101	180	138	77	54.0-166	28	30.00
1,2,4-Trichlorobenzene	30.0	28.1	94	30.0	26.3	88	76.0-115	6.6	30.00
Hexachlorobutadiene	30.0	26.4	88	30.0	25.3	84	70.0-111	4.3	30.00
Naphthalene	30.0	30.3	101	30.0	24.7	82	71.0-129	20	30.00
trans-1,4-Dichloro-2-butene	150	155	103	150	123	82	62.0-164	23	30.00
1,2,3-Trichlorobenzene	30.0	27.9	93	30.0	26.0	87	78.0-115	7.1	30.00

Print Date: 08/17/2012

N.C. Certification # 481

**Blank Spike Summary**

Blank Spike ID: LCS-S for HBN 26841 [VXX/3778]

Blank Spike Lab ID: 84241

Date Analyzed: 08/08/2012 09:28

Spike Duplicate ID: LCSD-S for HBN 26841

[VXX/3778]

Spike Duplicate Lab ID: 84242

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489002, 31202489003, 31202489006, 31202489007

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (%)			Spike Duplicate (%)				<u>CL</u>	<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>				
<b>Surrogates</b>										
1,2-Dichloroethane-d4		106			103		55.0-173			
Toluene d8		100			101		57.0-134			
4-Bromofluorobenzene		99			99		23.0-141			

**Batch Information**

Analytical Batch: VMS2454

Analytical Method: SW-846 8260B

Instrument: MSD9

Analyst: DVO

Prep Batch: VXX3778

Prep Method: SW-846 5035 SL

Prep Date/Time: 08/08/2012 08:22

Spike Init Wt./Vol.: 5 g Extract Vol: 5 mL

Dupe Init Wt./Vol.: 5 g Extract Vol: 5 mL



### Matrix Spike Summary

Original Sample ID: 31202489003 (104DPT-02 (6-6.5ft))

MS Sample ID: 84615

MSD Sample ID:

Analysis Date: 08/08/2012 12:08

Analysis Date: 08/08/2012 17:35

Analysis Date:

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489002, 31202489003, 31202489006, 31202489007

### Results by SW-846 8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
1,1,1,2-Tetrachloroethane	ND	30.1	25.6	85				69.0-120		
1,1,1-Trichloroethane	ND	30.1	27.7	92				78.0-121		
1,1,2,2-Tetrachloroethane	ND	30.1	38.7	128				76.0-136		
1,1,2-Trichloroethane	ND	30.1	33.3	110				65.0-128		
1,1-Dichloroethane	ND	30.1	29.2	97				72.0-139		
1,1-Dichloroethene	ND	30.1	30.4	101				72.0-135		
1,1-Dichloropropene	ND	30.1	29.1	97				69.0-137		
1,2,3-Trichlorobenzene	ND	30.1	27.3	91				61.0-126		
1,2,3-Trichloropropane	ND	30.1	41.0	136				10.0-218		
1,2,4-Trichlorobenzene	ND	30.1	25.3	84				61.0-125		
1,2,4-Trimethylbenzene	ND	30.1	27.3	91				31.0-172		
1,2-Dibromo-3-chloropropane	ND	181	271	150				43.0-229		
1,2-Dibromoethane	ND	30.1	34.7	115				78.0-148		
1,2-Dichlorobenzene	ND	30.1	29.1	97				58.0-148		
1,2-Dichloroethane	ND	30.1	32.8	109				73.0-146		
1,2-Dichloropropane	ND	30.1	28.2	94				76.0-136		
1,3,5-Trimethylbenzene	ND	30.1	27.3	91				68.0-132		
1,3-Dichlorobenzene	ND	30.1	27.9	93				55.0-145		
1,3-Dichloropropane	ND	30.1	32.6	108				33.0-137		
1,4-Dichlorobenzene	ND	30.1	27.8	92				53.0-146		
2,2-Dichloropropane	ND	30.1	25.1	83				58.0-150		
2-Butanone	ND	75.2	123	164				41.0-256		
2-Chlorotoluene	ND	30.1	27.7	92				60.0-144		
2-Hexanone	ND	75.2	125	166 *				42.0-111		
4-Chlorotoluene	ND	30.1	27.8	92				59.0-141		
4-Isopropyltoluene	ND	30.1	26.5	88				75.0-122		
4-Methyl-2-pentanone	ND	75.2	117	155				6.90-166		
Acetone	ND	75.2	123	163				6.80-355		
Benzene	ND	30.1	29.2	97				75.0-133		
Bromobenzene	ND	30.1	29.0	96				66.0-140		
Bromochloromethane	ND	30.1	32.0	106				85.0-136		
Bromodichloromethane	ND	30.1	26.8	89				77.0-140		
Bromoform	ND	30.1	29.4	98				75.0-151		
Bromomethane	ND	30.1	21.2	71				30.0-127		
n-Butylbenzene	ND	30.1	27.6	92				41.0-147		
Carbon disulfide	ND	30.1	25.7	85				64.0-145		
Carbon tetrachloride	ND	30.1	26.5	88				64.0-142		
Chlorobenzene	ND	30.1	29.3	97				66.0-135		
Chloroethane	ND	30.1	32.1	107				21.0-182		

Print Date: 08/17/2012

N.C. Certification # 481

**Matrix Spike Summary**

Original Sample ID: 31202489003 (104DPT-02 (6-6.5ft))

Analysis Date: 08/08/2012 12:08

MS Sample ID: 84615

Analysis Date: 08/08/2012 17:35

MSD Sample ID:

Analysis Date:

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489002, 31202489003, 31202489006, 31202489007

**Results by SW-846 8260B**

<b>Parameter</b>	<b>Sample</b>	<b>Matrix Spike (ug/Kg)</b>			<b>Spike Duplicate (ug/Kg)</b>			<b>CL</b>	<b>RPD (%)</b>	<b>RPD CL</b>
		<b>Spike</b>	<b>Result</b>	<b>Rec (%)</b>	<b>Spike</b>	<b>Result</b>	<b>Rec (%)</b>			
Chloroform	ND	30.1	29.8	99				71.0-143		
Chloromethane	ND	30.1	29.0	96				69.0-138		
Dibromochloromethane	ND	30.1	27.9	93				78.0-141		
Dibromomethane	ND	30.1	33.5	111				80.0-150		
Dichlorodifluoromethane	ND	30.1	31.6	105				82.0-130		
cis-1,3-Dichloropropene	ND	30.1	24.8	82				72.0-146		
trans-1,3-Dichloropropene	ND	30.1	25.5	85				45.0-144		
Diisopropyl Ether	ND	30.1	29.8	99				79.0-122		
Ethyl Benzene	ND	30.1	27.5	92				74.0-126		
Hexachlorobutadiene	ND	30.1	23.8	79				52.0-134		
Isopropylbenzene (Cumene)	ND	30.1	27.7	92				74.0-123		
Methyl iodide	ND	30.1	23.7	79				41.0-126		
Methylene chloride	2.82	30.1	31.5	105				49.0-155		
Naphthalene	ND	30.1	35.4	118				55.0-140		
Styrene	ND	30.1	27.8	92				73.0-123		
Tetrachloroethene	2.45	30.1	29.9	99				46.0-153		
Toluene	ND	30.1	29.8	99				66.0-128		
Trichloroethene	ND	30.1	28.1	93				35.0-136		
Trichlorofluoromethane	ND	30.1	33.1	110				77.0-132		
Vinyl chloride	ND	30.1	30.7	102				68.0-137		
cis-1,2-Dichloroethene	ND	30.1	30.4	101				77.0-134		
m,p-Xylene	ND	60.2	57.3	95				80.0-118		
n-Propylbenzene	ND	30.1	28.1	93				72.0-128		
o-Xylene	ND	30.1	28.1	93				80.0-121		
sec-Butylbenzene	ND	30.1	26.5	88				57.0-138		
tert-Butyl methyl ether (MTBE)	ND	30.1	31.6	105				67.0-135		
tert-Butylbenzene	ND	30.1	26.8	89				61.0-142		
trans-1,2-Dichloroethene	ND	30.1	30.2	100				72.0-135		
trans-1,4-Dichloro-2-butene	ND	151	204	135				49.0-211		

**Surrogates**

1,2-Dichloroethane-d4	114	55.0-173
4-Bromofluorobenzene	99	23.0-141
Toluene d8	101	57.0-134



### Matrix Spike Summary

Original Sample ID: 31202489003 (104DPT-02 (6-6.5ft))

MS Sample ID: 84615

MSD Sample ID:

QC for Samples: 31202489002, 31202489003, 31202489006, 31202489007

Analysis Date: 08/08/2012 12:08

Analysis Date: 08/08/2012 17:35

Analysis Date:

Matrix: Soil-Solid as dry weight

### Results by SW-846 8260B

Parameter	Matrix Spike (%)			Spike Duplicate (%)					
	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)

### Batch Information

Analytical Batch: VMS2454

Analytical Method: SW-846 8260B

Instrument: MSD9

Analyst: DVO

Prep Batch: VXX3778

Prep Method: SW-846 5035 SL

Prep Date/Time: 08/06/2012 16:18

MS Init Wt./Vol.: 5.53 g Extract Vol.: 5 mL

MSD Init Wt./Vol.: Extract Vol.:

**Batch Summary**

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Prep Batch: VXX3780

Prep Date: 08/08/2012 08:53

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS for HBN 26846 [VXX/3780]	84247	08/08/2012 10:33	VMS2457	MSD3	BWS
LCSD for HBN 26846 [VXX/3780]	84248	08/08/2012 10:58	VMS2457	MSD3	BWS
MB for HBN 26846 [VXX/3780]	84249	08/08/2012 11:48	VMS2457	MSD3	BWS
104DPT-02	31202489001	08/08/2012 13:53	VMS2457	MSD3	BWS

Print Date: 08/17/2012

N.C. Certification # 481

**Method Blank**

Blank ID: MB for HBN 26846 [VXX/3780]

Matrix: Water

Blank Lab ID: 84249

QC for Samples:

31202489001

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Tetrachloroethene	ND	U	0.225	1.00	ug/L	1

**Batch Information**

Analytical Batch: VMS2457

Prep Batch: VXX3780

Analytical Method: SW-846 8260B

Prep Method: SW-846 5030B

Instrument: MSD3

Prep Date/Time: 8/8/2012 8:53:33AM

Analyst: BWS

Prep Initial Wt./Vol.: 40 mL

Analytical Date/Time: 8/8/2012 11:48:00AM

Prep Extract Vol: 40 mL



### Blank Spike Summary

Blank Spike ID: LCS for HBN 26846 [VXX/3780]

Blank Spike Lab ID: 84247

Date Analyzed: 08/08/2012 10:33

Spike Duplicate ID: LCSD for HBN 26846 [VXX/3780]

Spike Duplicate Lab ID: 84248

Date Analyzed: 08/08/2012 10:58

Matrix: Water

QC for Samples: 31202489001

### Results by SW-846 8260B

Parameter	Blank Spike (ug/L)			Spike Duplicate (ug/L)				CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL			
Tetrachloroethene	5.00	4.01	80	5.00	4.81	96	59.0-112	18	30.00	

### Batch Information

Analytical Batch: VMS2457

Analytical Method: SW-846 8260B

Instrument: MSD3

Analyst: BWS

Prep Batch: VXX3780

Prep Method: SW-846 5030B

Prep Date/Time: 08/08/2012 08:53

Spike Init Wt./Vol.: 40 mL Extract Vol: 40 mL

Dupe Init Wt./Vol.: 40 mL Extract Vol: 40 mL

**Batch Summary**

Analytical Method: SW-846 8260B

Prep Method: SW-846 5035 SL

Prep Batch: VXX3787

Prep Date: 08/09/2012 08:19

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS-S for HBN 26881 [VXX/3787]	84435	08/09/2012 09:43	VMS2459	MSD9	DVO
LCSD-S for HBN 26881 [VXX/3787]	84436	08/09/2012 10:09	VMS2459	MSD9	DVO
MB-S for HBN 26881 [VXX/3787]	84437	08/09/2012 11:02	VMS2459	MSD9	DVO
105DPT-12 (6-7ft)(83867DUP)	84698	08/09/2012 16:04	VMS2459	MSD9	DVO
105DPT-13 (6-7ft)(83868MS)	84700	08/09/2012 16:46	VMS2459	MSD9	DVO
104DPT-03 (5.5-6ft)	31202489004	08/09/2012 19:53	VMS2459	MSD9	DVO

**Method Blank**

Blank ID: MB-S for HBN 26881 [VXX/3787]

Blank Lab ID: 84437

QC for Samples:

31202489004

Matrix: Soil-Solid as dry weight

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Dichlorodifluoromethane	ND	U	1.05	5.00	ug/Kg	1
Chloromethane	ND	U	1.43	5.00	ug/Kg	1
Vinyl chloride	ND	U	0.950	5.00	ug/Kg	1
Bromomethane	ND	U	1.45	5.00	ug/Kg	1
Chloroethane	ND	U	1.00	5.00	ug/Kg	1
Trichlorofluoromethane	ND	U	1.01	5.00	ug/Kg	1
1,1-Dichloroethene	ND	U	1.16	5.00	ug/Kg	1
Acetone	ND	U	4.01	50.0	ug/Kg	1
Methylene chloride	1.67	J	1.05	20.0	ug/Kg	1
trans-1,2-Dichloroethene	ND	U	0.730	5.00	ug/Kg	1
tert-Butyl methyl ether (MTBE)	ND	U	0.795	5.00	ug/Kg	1
1,1-Dichloroethane	ND	U	0.538	5.00	ug/Kg	1
Diisopropyl Ether	ND	U	0.821	5.00	ug/Kg	1
2,2-Dichloropropane	ND	U	0.738	5.00	ug/Kg	1
cis-1,2-Dichloroethene	ND	U	0.611	5.00	ug/Kg	1
2-Butanone	ND	U	3.38	25.0	ug/Kg	1
Bromochloromethane	ND	U	0.940	5.00	ug/Kg	1
Chloroform	ND	U	0.637	5.00	ug/Kg	1
1,1,1-Trichloroethane	ND	U	0.754	5.00	ug/Kg	1
Carbon tetrachloride	ND	U	0.569	5.00	ug/Kg	1
1,1-Dichloropropene	ND	U	0.676	5.00	ug/Kg	1
Benzene	ND	U	0.711	5.00	ug/Kg	1
1,2-Dichloroethane	ND	U	0.913	5.00	ug/Kg	1
Trichloroethene	ND	U	0.842	5.00	ug/Kg	1
1,2-Dichloropropane	ND	U	1.15	5.00	ug/Kg	1
Dibromomethane	ND	U	0.882	5.00	ug/Kg	1
Bromodichloromethane	ND	U	0.704	5.00	ug/Kg	1
cis-1,3-Dichloropropene	ND	U	1.03	5.00	ug/Kg	1
4-Methyl-2-pentanone	ND	U	3.74	12.5	ug/Kg	1
Toluene	ND	U	0.688	5.00	ug/Kg	1
Methyl iodide	ND	U	0.766	5.00	ug/Kg	1
trans-1,3-Dichloropropene	ND	U	0.944	5.00	ug/Kg	1
Carbon disulfide	ND	U	0.523	5.00	ug/Kg	1
1,1,2-Trichloroethane	ND	U	1.04	5.00	ug/Kg	1
Tetrachloroethene	ND	U	0.751	5.00	ug/Kg	1
1,3-Dichloropropane	ND	U	0.879	5.00	ug/Kg	1
2-Hexanone	ND	U	3.22	12.5	ug/Kg	1
Dibromochloromethane	ND	U	1.11	5.00	ug/Kg	1
1,2-Dibromoethane	ND	U	1.31	5.00	ug/Kg	1
Chlorobenzene	ND	U	0.698	5.00	ug/Kg	1
1,1,1,2-Tetrachloroethane	ND	U	0.709	5.00	ug/Kg	1
Bromoform	ND	U	0.724	5.00	ug/Kg	1

**Method Blank**

Blank ID: MB-S for HBN 26881 [VXX/3787]

Blank Lab ID: 84437

QC for Samples:

31202489004

**Matrix: Soil-Solid as dry weight****Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Bromobenzene	ND	U	0.697	5.00	ug/Kg	1
1,1,2,2-Tetrachloroethane	ND	U	1.17	5.00	ug/Kg	1
1,2,3-Trichloropropane	ND	U	1.03	5.00	ug/Kg	1
Ethyl Benzene	ND	U	0.705	5.00	ug/Kg	1
m,p-Xylene	ND	U	1.69	10.0	ug/Kg	1
Styrene	ND	U	0.576	5.00	ug/Kg	1
o-Xylene	ND	U	0.766	5.00	ug/Kg	1
Xylene (total)	ND	U	1.77	10.0	ug/Kg	1
Isopropylbenzene (Cumene)	ND	U	0.622	5.00	ug/Kg	1
n-Propylbenzene	ND	U	0.732	5.00	ug/Kg	1
2-Chlorotoluene	ND	U	0.937	5.00	ug/Kg	1
4-Chlorotoluene	ND	U	0.756	5.00	ug/Kg	1
1,3,5-Trimethylbenzene	ND	U	0.608	5.00	ug/Kg	1
tert-Butylbenzene	ND	U	0.673	5.00	ug/Kg	1
1,2,4-Trimethylbenzene	ND	U	0.637	5.00	ug/Kg	1
sec-Butylbenzene	ND	U	0.600	5.00	ug/Kg	1
1,3-Dichlorobenzene	ND	U	0.719	5.00	ug/Kg	1
4-Isopropyltoluene	ND	U	0.645	5.00	ug/Kg	1
1,4-Dichlorobenzene	ND	U	0.675	5.00	ug/Kg	1
1,2-Dichlorobenzene	ND	U	0.711	5.00	ug/Kg	1
n-Butylbenzene	ND	U	0.657	5.00	ug/Kg	1
1,2-Dibromo-3-chloropropane	ND	U	7.41	30.0	ug/Kg	1
1,2,4-Trichlorobenzene	ND	U	0.729	5.00	ug/Kg	1
Hexachlorobutadiene	ND	U	0.687	5.00	ug/Kg	1
Naphthalene	ND	U	0.909	5.00	ug/Kg	1
trans-1,4-Dichloro-2-butene	ND	U	4.20	25.0	ug/Kg	1
1,2,3-Trichlorobenzene	ND	U	0.832	5.00	ug/Kg	1
<b>Surrogates</b>						
1,2-Dichloroethane-d4	112			55.0-173	%	1
Toluene d8	105			57.0-134	%	1
4-Bromofluorobenzene	99.0			23.0-141	%	1

**Batch Information**

Analytical Batch: VMS2459  
 Analytical Method: SW-846 8260B  
 Instrument: MSD9  
 Analyst: DVO  
 Analytical Date/Time: 8/9/2012 11:02:00AM

Prep Batch: VXX3787  
 Prep Method: SW-846 5035 SL  
 Prep Date/Time: 8/9/2012 8:19:52AM  
 Prep Initial Wt./Vol.: 5 g  
 Prep Extract Vol: 5 mL

**Blank Spike Summary**

Blank Spike ID: LCS-S for HBN 26881 [VXX/3787]

Blank Spike Lab ID: 84435

Date Analyzed: 08/09/2012 09:43

Spike Duplicate ID: LCSD-S for HBN 26881

[VXX/3787]

Spike Duplicate Lab ID: 84436

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489004

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)				<u>CL</u>	<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>				
Dichlorodifluoromethane	30.0	30.0	100	30.0	31.3	104	52.0-133	4.2	30.00	
Chloromethane	30.0	29.0	97	30.0	31.0	103	64.0-126	6.7	30.00	
Vinyl chloride	30.0	29.7	99	30.0	30.8	103	69.0-120	3.6	30.00	
Bromomethane	30.0	42.3	141	30.0	38.5	128	41.0-160	9.4	30.00	
Chloroethane	30.0	34.6	115	30.0	33.6	112	69.0-126	2.9	30.00	
Trichlorofluoromethane	30.0	30.7	102	30.0	32.3	108	72.0-123	5.1	30.00	
1,1-Dichloroethene	30.0	31.4	105	30.0	30.2	101	78.0-113	3.9	30.00	
Acetone	75.0	75.4	101	75.0	81.6	109	0.00-243	7.9	30.00	
Methylene chloride	30.0	30.0	100	30.0	29.2	97	40.0-156	2.7	30.00	
trans-1,2-Dichloroethene	30.0	31.4	105	30.0	30.0	100	78.0-111	4.6	30.00	
tert-Butyl methyl ether (MTBE)	30.0	29.7	99	30.0	29.2	97	68.0-138	1.7	30.00	
1,1-Dichloroethane	30.0	30.6	102	30.0	30.0	100	71.0-121	2.0	30.00	
Diisopropyl Ether	30.0	30.5	102	30.0	29.9	100	60.0-141	2.0	30.00	
2,2-Dichloropropane	30.0	28.8	96	30.0	27.9	93	79.0-127	3.2	30.00	
cis-1,2-Dichloroethene	30.0	31.4	105	30.0	31.2	104	80.0-114	0.64	30.00	
2-Butanone	75.0	70.3	94	75.0	76.3	102	31.0-189	8.2	30.00	
Bromochloromethane	30.0	33.1	110	30.0	31.4	105	81.0-115	5.3	30.00	
Chloroform	30.0	31.0	103	30.0	30.5	102	76.0-114	1.6	30.00	
1,1,1-Trichloroethane	30.0	30.2	101	30.0	29.6	99	79.0-117	2.0	30.00	
Carbon tetrachloride	30.0	30.1	100	30.0	28.9	96	82.0-119	4.1	30.00	
1,1-Dichloropropene	30.0	30.5	102	30.0	29.7	99	82.0-114	2.7	30.00	
Benzene	30.0	30.2	101	30.0	29.0	97	82.0-113	4.1	30.00	
1,2-Dichloroethane	30.0	31.1	104	30.0	29.7	99	72.0-126	4.6	30.00	
Trichloroethene	30.0	30.0	100	30.0	28.6	95	82.0-108	4.8	30.00	
1,2-Dichloropropane	30.0	29.3	98	30.0	28.6	95	78.0-116	2.4	30.00	
Dibromomethane	30.0	30.5	102	30.0	29.8	99	79.0-125	2.3	30.00	
Bromodichloromethane	30.0	29.3	98	30.0	28.1	94	79.0-122	4.2	30.00	
cis-1,3-Dichloropropene	30.0	27.4	91	30.0	26.7	89	75.0-127	2.6	30.00	
4-Methyl-2-pentanone	75.0	68.6	91	75.0	72.7	97	57.0-159	5.8	30.00	
Toluene	30.0	30.7	102	30.0	29.8	99	83.0-111	3.0	30.00	
Methyl iodide	30.0	29.2	97	30.0	27.6	92	63.0-137	5.6	30.00	
trans-1,3-Dichloropropene	30.0	26.6	89	30.0	26.1	87	75.0-134	1.9	30.00	
Carbon disulfide	30.0	29.5	98	30.0	28.2	94	72.0-116	4.5	30.00	
1,1,2-Trichloroethane	30.0	30.5	102	30.0	29.6	99	73.0-121	3.0	30.00	



### Blank Spike Summary

Blank Spike ID: LCS-S for HBN 26881 [VXX/3787]

Blank Spike Lab ID: 84435

Date Analyzed: 08/09/2012 09:43

Spike Duplicate ID: LCSD-S for HBN 26881

[VXX/3787]

Spike Duplicate Lab ID: 84436

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489004

### Results by SW-846 8260B

Parameter	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Tetrachloroethene	30.0	29.9	100	30.0	29.3	98	60.0-118	2.0	30.00
1,3-Dichloropropane	30.0	30.3	101	30.0	28.7	96	76.0-121	5.4	30.00
2-Hexanone	75.0	68.4	91	75.0	69.3	92	41.0-171	1.3	30.00
Dibromochloromethane	30.0	28.9	96	30.0	27.4	91	77.0-126	5.3	30.00
1,2-Dibromoethane	30.0	29.3	98	30.0	29.7	99	76.0-125	1.4	30.00
Chlorobenzene	30.0	29.8	99	30.0	29.1	97	78.0-109	2.4	30.00
1,1,1,2-Tetrachloroethane	30.0	28.6	95	30.0	28.0	93	81.0-117	2.1	30.00
Bromoform	30.0	26.4	88	30.0	25.3	84	72.0-134	4.3	30.00
Bromobenzene	30.0	29.0	97	30.0	28.1	94	76.0-113	3.2	30.00
1,1,2,2-Tetrachloroethane	30.0	29.0	97	30.0	29.1	97	76.0-129	0.34	30.00
1,2,3-Trichloropropane	30.0	29.1	97	30.0	28.8	96	70.0-145	1.0	30.00
Ethyl Benzene	30.0	30.0	100	30.0	28.6	95	72.0-115	4.8	30.00
m,p-Xylene	60.0	62.8	105	60.0	58.6	98	73.0-114	6.9	30.00
Styrene	30.0	30.3	101	30.0	29.0	97	74.0-114	4.4	30.00
o-Xylene	30.0	30.6	102	30.0	29.5	98	74.0-113	3.7	30.00
Isopropylbenzene (Cumene)	30.0	30.4	101	30.0	29.0	97	72.0-115	4.7	30.00
n-Propylbenzene	30.0	31.2	104	30.0	29.3	98	71.0-117	6.3	30.00
2-Chlorotoluene	30.0	31.1	104	30.0	29.7	99	76.0-111	4.6	30.00
4-Chlorotoluene	30.0	31.2	104	30.0	29.0	97	75.0-113	7.3	30.00
1,3,5-Trimethylbenzene	30.0	30.5	102	30.0	28.8	96	72.0-115	5.7	30.00
tert-Butylbenzene	30.0	29.8	99	30.0	28.6	95	74.0-112	4.1	30.00
1,2,4-Trimethylbenzene	30.0	30.6	102	30.0	29.0	97	73.0-114	5.4	30.00
sec-Butylbenzene	30.0	29.6	99	30.0	28.3	94	72.0-115	4.5	30.00
1,3-Dichlorobenzene	30.0	30.4	101	30.0	29.4	98	75.0-110	3.3	30.00
4-Isopropyltoluene	30.0	29.2	97	30.0	28.2	94	73.0-114	3.5	30.00
1,4-Dichlorobenzene	30.0	30.4	101	30.0	29.5	98	76.0-110	3.0	30.00
1,2-Dichlorobenzene	30.0	30.3	101	30.0	28.5	95	77.0-109	6.1	30.00
n-Butylbenzene	30.0	29.6	99	30.0	28.4	95	72.0-118	4.1	30.00
1,2-Dibromo-3-chloropropane	180	160	89	180	163	91	54.0-166	1.9	30.00
1,2,4-Trichlorobenzene	30.0	29.7	99	30.0	26.9	90	76.0-115	9.9	30.00
Hexachlorobutadiene	30.0	27.8	93	30.0	26.3	88	70.0-111	5.5	30.00
Naphthalene	30.0	28.8	96	30.0	27.9	93	71.0-129	3.2	30.00
trans-1,4-Dichloro-2-butene	150	144	96	150	145	97	62.0-164	0.69	30.00
1,2,3-Trichlorobenzene	30.0	29.1	97	30.0	26.7	89	78.0-115	8.6	30.00

Print Date: 08/17/2012

N.C. Certification # 481



### Blank Spike Summary

Blank Spike ID: LCS-S for HBN 26881 [VXX/3787]

Blank Spike Lab ID: 84435

Date Analyzed: 08/09/2012 09:43

QC for Samples: 31202489004

Spike Duplicate ID: LCSD-S for HBN 26881

[VXX/3787]

Spike Duplicate Lab ID: 84436

Matrix: Soil-Solid as dry weight

### Results by SW-846 8260B

Parameter	Blank Spike (%)			Spike Duplicate (%)				CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)				
<b>Surrogates</b>										
1,2-Dichloroethane-d4		105				107		55.0-173		
Toluene d8		101				101		57.0-134		
4-Bromofluorobenzene		101				100		23.0-141		

### Batch Information

Analytical Batch: VMS2459

Analytical Method: SW-846 8260B

Instrument: MSD9

Analyst: DVO

Prep Batch: VXX3787

Prep Method: SW-846 5035 SL

Prep Date/Time: 08/09/2012 08:19

Spike Init Wt./Vol.: 5 g Extract Vol: 5 mL

Dupe Init Wt./Vol.: 5 g Extract Vol: 5 mL

**Batch Summary**Analytical Method: **SW-846 8260B**Prep Method: **SW-846 5030B**Prep Batch: **VXX3789**Prep Date: **08/09/2012 08:38**

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCSD for HBN 26888 [VXX/3789]	84442	08/09/2012 10:14	VMS2461	MSD3	BWS
LCS for HBN 26888 [VXX/3789]	84441	08/09/2012 11:29	VMS2461	MSD3	BWS
MB for HBN 26888 [VXX/3789]	84443	08/09/2012 12:44	VMS2461	MSD3	BWS
104DPT-02	31202489001	08/09/2012 19:49	VMS2461	MSD3	BWS
SRW1(84377MS)	84638	08/09/2012 20:14	VMS2461	MSD3	BWS
SRW1(84377MSD)	84639	08/09/2012 20:39	VMS2461	MSD3	BWS

**Method Blank**

Blank ID: MB for HBN 26888 [VXX/3789]

Blank Lab ID: 84443

QC for Samples:

31202489001

**Matrix: Water****Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Dichlorodifluoromethane	ND	U	0.283	5.00	ug/L	1
Chloromethane	ND	U	0.295	1.00	ug/L	1
Vinyl chloride	ND	U	0.386	1.00	ug/L	1
Bromomethane	ND	U	0.507	1.00	ug/L	1
Chloroethane	ND	U	0.902	1.00	ug/L	1
Trichlorofluoromethane	ND	U	0.308	1.00	ug/L	1
1,1-Dichloroethene	ND	U	0.202	1.00	ug/L	1
Acetone	ND	U	2.56	25.0	ug/L	1
Methylene chloride	0.230	J	0.199	5.00	ug/L	1
trans-1,2-Dichloroethene	ND	U	0.247	1.00	ug/L	1
tert-Butyl methyl ether (MTBE)	ND	U	0.195	1.00	ug/L	1
1,1-Dichloroethane	ND	U	0.162	1.00	ug/L	1
Diisopropyl Ether	ND	U	0.134	1.00	ug/L	1
2,2-Dichloropropane	ND	U	0.194	1.00	ug/L	1
cis-1,2-Dichloroethene	ND	U	0.179	1.00	ug/L	1
2-Butanone	ND	U	1.39	25.0	ug/L	1
Bromochloromethane	ND	U	0.134	1.00	ug/L	1
Chloroform	ND	U	0.205	1.00	ug/L	1
1,1,1-Trichloroethane	ND	U	0.221	1.00	ug/L	1
Carbon tetrachloride	ND	U	0.169	1.00	ug/L	1
1,1-Dichloropropene	ND	U	0.176	1.00	ug/L	1
Benzene	ND	U	0.156	1.00	ug/L	1
1,2-Dichloroethane	ND	U	0.139	1.00	ug/L	1
Trichloroethene	ND	U	0.199	1.00	ug/L	1
1,2-Dichloropropane	ND	U	0.158	1.00	ug/L	1
Dibromomethane	ND	U	0.171	1.00	ug/L	1
Bromodichloromethane	ND	U	0.222	1.00	ug/L	1
cis-1,3-Dichloropropene	ND	U	0.185	1.00	ug/L	1
4-Methyl-2-pentanone	ND	U	1.15	5.00	ug/L	1
Toluene	ND	U	0.180	1.00	ug/L	1
Methyl iodide	ND	U	0.247	1.00	ug/L	1
trans-1,3-Dichloropropene	ND	U	0.167	1.00	ug/L	1
Carbon disulfide	ND	U	0.197	1.00	ug/L	1
1,1,2-Trichloroethane	ND	U	0.216	1.00	ug/L	1
1,3-Dichloropropane	ND	U	0.198	1.00	ug/L	1
2-Hexanone	ND	U	1.39	5.00	ug/L	1
Dibromochloromethane	ND	U	0.173	1.00	ug/L	1
1,2-Dibromoethane	ND	U	0.179	1.00	ug/L	1
Chlorobenzene	ND	U	0.158	1.00	ug/L	1
1,1,1,2-Tetrachloroethane	ND	U	0.175	1.00	ug/L	1
Bromoform	ND	U	0.208	1.00	ug/L	1
Bromobenzene	ND	U	0.205	1.00	ug/L	1

Print Date: 08/17/2012

N.C. Certification # 481

**Method Blank**

Blank ID: MB for HBN 26888 [VXX/3789]

Blank Lab ID: 84443

QC for Samples:

31202489001

Matrix: Water

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
1,1,2,2-Tetrachloroethane	ND	U	0.223	1.00	ug/L	1
1,2,3-Trichloropropane	ND	U	0.210	1.00	ug/L	1
Ethyl Benzene	ND	U	0.186	1.00	ug/L	1
m,p-Xylene	ND	U	0.407	2.00	ug/L	1
Styrene	ND	U	0.207	1.00	ug/L	1
o-Xylene	ND	U	0.195	1.00	ug/L	1
Xylene (total)	ND	U	0.602	2.00	ug/L	1
Isopropylbenzene (Cumene)	ND	U	0.196	1.00	ug/L	1
n-Propylbenzene	ND	U	0.185	1.00	ug/L	1
2-Chlorotoluene	ND	U	0.160	1.00	ug/L	1
4-Chlorotoluene	ND	U	0.259	1.00	ug/L	1
1,3,5-Trimethylbenzene	ND	U	0.159	1.00	ug/L	1
tert-Butylbenzene	ND	U	0.239	1.00	ug/L	1
1,2,4-Trimethylbenzene	ND	U	0.179	1.00	ug/L	1
sec-Butylbenzene	ND	U	0.151	1.00	ug/L	1
1,3-Dichlorobenzene	ND	U	0.180	1.00	ug/L	1
4-Isopropyltoluene	ND	U	0.170	1.00	ug/L	1
1,4-Dichlorobenzene	ND	U	0.243	1.00	ug/L	1
1,2-Dichlorobenzene	ND	U	0.214	1.00	ug/L	1
n-Butylbenzene	ND	U	0.168	1.00	ug/L	1
1,2-Dibromo-3-chloropropane	ND	U	1.88	5.00	ug/L	1
1,2,4-Trichlorobenzene	ND	U	0.220	1.00	ug/L	1
Hexachlorobutadiene	ND	U	0.365	1.00	ug/L	1
Naphthalene	ND	U	0.260	1.00	ug/L	1
trans-1,4-Dichloro-2-butene	ND	U	1.25	5.00	ug/L	1
1,2,3-Trichlorobenzene	ND	U	0.246	1.00	ug/L	1
<b>Surrogates</b>						
1,2-Dichloroethane-d4	94.0			64.0-140	%	1
Toluene d8	104			82.0-117	%	1
4-Bromofluorobenzene	100			85.0-115	%	1

**Batch Information**

Analytical Batch: VMS2461

Analytical Method: SW-846 8260B

Instrument: MSD3

Analyst: BWS

Analytical Date/Time: 8/9/2012 12:44:00PM

Prep Batch: VXX3789

Prep Method: SW-846 5030B

Prep Date/Time: 8/9/2012 8:38:27AM

Prep Initial Wt./Vol.: 40 mL

Prep Extract Vol: 40 mL

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 26888 [VXX/3789]

Blank Spike Lab ID: 84441

Date Analyzed: 08/09/2012 11:29

Spike Duplicate ID: LCSD for HBN 26888 [VXX/3789]

Spike Duplicate Lab ID: 84442

Date Analyzed: 08/09/2012 10:14

Matrix: Water

QC for Samples: 31202489001

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (ug/L)			Spike Duplicate (ug/L)			<u>CL</u>	<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>			
Dichlorodifluoromethane	5.00	5.06	101	5.00	4.42	88	33.0-170	14	30.00
Chloromethane	5.00	5.06	101	5.00	4.52	90	57.0-132	11	30.00
Vinyl chloride	5.00	4.89	98	5.00	4.53	91	59.0-138	7.6	30.00
Bromomethane	5.00	7.15	143*	5.00	4.92	98	51.0-134	37*	30.00
Chloroethane	5.00	4.51	90	5.00	4.29	86	64.0-145	5.0	30.00
Trichlorofluoromethane	5.00	4.52	90	5.00	4.01	80	64.0-133	12	30.00
1,1-Dichloroethene	5.00	4.54	91	5.00	4.10	82	71.0-128	10	30.00
Acetone	25.0	21.8	87	25.0	19.9	80	52.0-140	9.1	30.00
Methylene chloride	5.00	4.77	95	5.00	4.41	88	70.0-113	7.8	30.00
trans-1,2-Dichloroethene	5.00	5.07	101	5.00	4.70	94	57.0-138	7.6	30.00
tert-Butyl methyl ether (MTBE)	5.00	4.83	97	5.00	4.37	87	47.0-142	10	30.00
1,1-Dichloroethane	5.00	4.88	98	5.00	4.26	85	68.0-133	14	30.00
Diisopropyl Ether	5.00	4.96	99	5.00	4.77	95	66.0-132	3.9	30.00
2,2-Dichloropropane	5.00	4.72	94	5.00	4.33	87	74.0-125	8.6	30.00
cis-1,2-Dichloroethene	5.00	5.34	107	5.00	4.95	99	73.0-128	7.6	30.00
2-Butanone	25.0	23.5	94	25.0	21.8	87	58.0-134	7.5	30.00
Bromochloromethane	5.00	5.13	103	5.00	4.71	94	73.0-128	8.5	30.00
Chloroform	5.00	4.71	94	5.00	4.32	86	74.0-124	8.6	30.00
1,1,1-Trichloroethane	5.00	4.51	90	5.00	4.18	84	76.0-119	7.6	30.00
Carbon tetrachloride	5.00	4.59	92	5.00	4.25	85	75.0-120	7.7	30.00
1,1-Dichloropropene	5.00	4.89	98	5.00	4.53	91	76.0-124	7.6	30.00
Benzene	5.00	4.96	99	5.00	4.65	93	76.0-124	6.5	30.00
1,2-Dichloroethane	5.00	4.67	93	5.00	4.40	88	76.0-119	6.0	30.00
Trichloroethene	5.00	4.93	99	5.00	4.68	94	74.0-121	5.2	30.00
1,2-Dichloropropane	5.00	4.88	98	5.00	4.45	89	74.0-124	9.2	30.00
Dibromomethane	5.00	4.92	98	5.00	4.46	89	71.0-128	9.8	30.00
Bromodichloromethane	5.00	4.50	90	5.00	4.09	82	72.0-120	9.5	30.00
cis-1,3-Dichloropropene	5.00	4.62	92	5.00	4.21	84	73.0-122	9.3	30.00
4-Methyl-2-pentanone	25.0	23.5	94	25.0	21.8	87	65.0-124	7.5	30.00
Toluene	5.00	5.19	104	5.00	4.69	94	75.0-123	10	30.00
Methyl iodide	5.00	5.35	107	5.00	5.11	102	55.0-123	4.6	30.00
trans-1,3-Dichloropropene	5.00	4.82	96	5.00	4.48	90	70.0-125	7.3	30.00
Carbon disulfide	5.00	4.30	86	5.00	3.80	76	65.0-132	12	30.00
1,1,2-Trichloroethane	5.00	4.84	97	5.00	4.50	90	76.0-121	7.3	30.00

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 26888 [VXX/3789]

Blank Spike Lab ID: 84441

Date Analyzed: 08/09/2012 11:29

Spike Duplicate ID: LCSD for HBN 26888 [VXX/3789]

Spike Duplicate Lab ID: 84442

Date Analyzed: 08/09/2012 10:14

Matrix: Water

QC for Samples: 31202489001

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (ug/L)			Spike Duplicate (ug/L)				<u>CL</u>	<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>				
1,3-Dichloropropane	5.00	4.88	98	5.00	4.55	91	74.0-120	7.0	30.00	
2-Hexanone	25.0	22.2	89	25.0	20.8	83	56.0-133	6.5	30.00	
Dibromochloromethane	5.00	4.28	86	5.00	3.93	79	67.0-122	8.5	30.00	
1,2-Dibromoethane	5.00	4.56	91	5.00	4.11	82	74.0-119	10	30.00	
Chlorobenzene	5.00	4.75	95	5.00	4.39	88	74.0-120	7.9	30.00	
1,1,1,2-Tetrachloroethane	5.00	4.38	88	5.00	4.10	82	73.0-119	6.6	30.00	
Bromoform	5.00	4.62	92	5.00	4.45	89	62.0-127	3.7	30.00	
Bromobenzene	5.00	4.96	99	5.00	4.49	90	75.0-120	9.9	30.00	
1,1,2,2-Tetrachloroethane	5.00	5.04	101	5.00	4.50	90	68.0-129	11	30.00	
1,2,3-Trichloropropane	5.00	4.51	90	5.00	4.25	85	67.0-126	5.9	30.00	
Ethyl Benzene	5.00	4.64	93	5.00	4.41	88	76.0-123	5.1	30.00	
m,p-Xylene	10.0	9.35	94	10.0	8.77	88	76.0-124	6.4	30.00	
Styrene	5.00	4.72	94	5.00	4.33	87	76.0-121	8.6	30.00	
o-Xylene	5.00	5.10	102	5.00	4.66	93	75.0-124	9.0	30.00	
Isopropylbenzene (Cumene)	5.00	4.80	96	5.00	4.52	90	77.0-120	6.0	30.00	
n-Propylbenzene	5.00	4.80	96	5.00	4.70	94	77.0-123	2.1	30.00	
2-Chlorotoluene	5.00	4.90	98	5.00	4.53	91	74.0-127	7.8	30.00	
4-Chlorotoluene	5.00	4.62	92	5.00	4.38	88	77.0-123	5.3	30.00	
1,3,5-Trimethylbenzene	5.00	4.64	93	5.00	4.35	87	76.0-122	6.5	30.00	
tert-Butylbenzene	5.00	4.88	98	5.00	4.49	90	67.0-122	8.3	30.00	
1,2,4-Trimethylbenzene	5.00	4.66	93	5.00	4.54	91	76.0-124	2.6	30.00	
sec-Butylbenzene	5.00	4.69	94	5.00	4.59	92	78.0-121	2.2	30.00	
1,3-Dichlorobenzene	5.00	4.70	94	5.00	4.52	90	75.0-120	3.9	30.00	
4-Isopropyltoluene	5.00	4.67	93	5.00	4.49	90	77.0-120	3.9	30.00	
1,4-Dichlorobenzene	5.00	4.81	96	5.00	4.48	90	70.0-125	7.1	30.00	
1,2-Dichlorobenzene	5.00	4.73	95	5.00	4.35	87	76.0-118	8.4	30.00	
n-Butylbenzene	5.00	4.56	91	5.00	4.30	86	78.0-118	5.9	30.00	
1,2-Dibromo-3-chloropropane	30.0	24.6	82	30.0	22.4	75	62.0-130	9.4	30.00	
1,2,4-Trichlorobenzene	5.00	4.41	88	5.00	4.50	90	72.0-119	2.0	30.00	
Hexachlorobutadiene	5.00	4.37	87	5.00	4.08	82	69.0-121	6.9	30.00	
Naphthalene	5.00	4.27	85	5.00	4.27	85	67.0-122	0.0	30.00	
trans-1,4-Dichloro-2-butene	25.0	20.7	83	25.0	20.6	82	61.0-132	0.48	30.00	
1,2,3-Trichlorobenzene	5.00	4.50	90	5.00	4.35	87	68.0-123	3.4	30.00	

**Surrogates**

Print Date: 08/17/2012

N.C. Certification # 481

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 26888 [VXX/3789]

Blank Spike Lab ID: 84441

Date Analyzed: 08/09/2012 11:29

Spike Duplicate ID: LCSD for HBN 26888 [VXX/3789]

Spike Duplicate Lab ID: 84442

Date Analyzed: 08/09/2012 10:14

Matrix: Water

QC for Samples: 31202489001

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (%)			Spike Duplicate (%)			
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>CL</u>
1,2-Dichloroethane-d4		92			91	64.0-140	
Toluene d8		103			104	82.0-117	
4-Bromofluorobenzene		102			102	85.0-115	

**Batch Information**

Analytical Batch: VMS2461

Analytical Method: SW-846 8260B

Instrument: MSD3

Analyst: BWS

Prep Batch: VXX3789

Prep Method: SW-846 5030B

Prep Date/Time: 08/09/2012 08:38

Spike Init Wt./Vol.: 40 mL Extract Vol: 40 mL

Dupe Init Wt./Vol.: 40 mL Extract Vol: 40 mL

**Batch Summary**

Analytical Method: SW-846 8260B

Prep Method: SW-846 5035 SL

Prep Batch: VXX3802

Prep Date: 08/10/2012 08:41

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
LCS-S for HBN 26935 [VXX/3802]	84685	08/10/2012 09:38	VMS2464	MSD9	DVO
LCSD-S for HBN 26935 [VXX/3802]	84686	08/10/2012 10:05	VMS2464	MSD9	DVO
MB-S for HBN 26935 [VXX/3802]	84687	08/10/2012 10:59	VMS2464	MSD9	DVO
GP-24 (0.5-1)(84321DUP)	84839	08/10/2012 15:50	VMS2464	MSD9	DVO
GP-24 (3.5-4)(84323MS)	84840	08/10/2012 16:17	VMS2464	MSD9	DVO
104DPT-04 (7-8ft)	31202489005	08/10/2012 18:30	VMS2464	MSD9	DVO

**Method Blank**

Blank ID: MB-S for HBN 26935 [VXX/3802]

Blank Lab ID: 84687

QC for Samples:

31202489005

Matrix: Soil-Solid as dry weight

**Results by SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Dichlorodifluoromethane	ND	U	1.05	5.00	ug/Kg	1
Chloromethane	ND	U	1.43	5.00	ug/Kg	1
Vinyl chloride	ND	U	0.950	5.00	ug/Kg	1
Bromomethane	ND	U	1.45	5.00	ug/Kg	1
Chloroethane	ND	U	1.00	5.00	ug/Kg	1
Trichlorofluoromethane	ND	U	1.01	5.00	ug/Kg	1
1,1-Dichloroethene	ND	U	1.16	5.00	ug/Kg	1
Acetone	ND	U	4.01	50.0	ug/Kg	1
Methylene chloride	1.08	J	1.05	20.0	ug/Kg	1
trans-1,2-Dichloroethene	ND	U	0.730	5.00	ug/Kg	1
tert-Butyl methyl ether (MTBE)	ND	U	0.795	5.00	ug/Kg	1
1,1-Dichloroethane	ND	U	0.538	5.00	ug/Kg	1
Diisopropyl Ether	ND	U	0.821	5.00	ug/Kg	1
2,2-Dichloropropane	ND	U	0.738	5.00	ug/Kg	1
cis-1,2-Dichloroethene	ND	U	0.611	5.00	ug/Kg	1
2-Butanone	ND	U	3.38	25.0	ug/Kg	1
Bromochloromethane	ND	U	0.940	5.00	ug/Kg	1
Chloroform	ND	U	0.637	5.00	ug/Kg	1
1,1,1-Trichloroethane	ND	U	0.754	5.00	ug/Kg	1
Carbon tetrachloride	ND	U	0.569	5.00	ug/Kg	1
1,1-Dichloropropene	ND	U	0.676	5.00	ug/Kg	1
Benzene	ND	U	0.711	5.00	ug/Kg	1
1,2-Dichloroethane	ND	U	0.913	5.00	ug/Kg	1
Trichloroethene	ND	U	0.842	5.00	ug/Kg	1
1,2-Dichloropropane	ND	U	1.15	5.00	ug/Kg	1
Dibromomethane	ND	U	0.882	5.00	ug/Kg	1
Bromodichloromethane	ND	U	0.704	5.00	ug/Kg	1
cis-1,3-Dichloropropene	ND	U	1.03	5.00	ug/Kg	1
4-Methyl-2-pentanone	ND	U	3.74	12.5	ug/Kg	1
Toluene	ND	U	0.688	5.00	ug/Kg	1
Methyl iodide	ND	U	0.766	5.00	ug/Kg	1
trans-1,3-Dichloropropene	ND	U	0.944	5.00	ug/Kg	1
Carbon disulfide	ND	U	0.523	5.00	ug/Kg	1
1,1,2-Trichloroethane	ND	U	1.04	5.00	ug/Kg	1
Tetrachloroethene	ND	U	0.751	5.00	ug/Kg	1
1,3-Dichloropropane	ND	U	0.879	5.00	ug/Kg	1
2-Hexanone	ND	U	3.22	12.5	ug/Kg	1
Dibromochloromethane	ND	U	1.11	5.00	ug/Kg	1
1,2-Dibromoethane	ND	U	1.31	5.00	ug/Kg	1
Chlorobenzene	ND	U	0.698	5.00	ug/Kg	1
1,1,1,2-Tetrachloroethane	ND	U	0.709	5.00	ug/Kg	1
Bromoform	ND	U	0.724	5.00	ug/Kg	1

Print Date: 08/17/2012

N.C. Certification # 481



### Method Blank

Blank ID: MB-S for HBN 26935 [VXX/3802]

Blank Lab ID: 84687

QC for Samples:

31202489005

Matrix: Soil-Solid as dry weight

### Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Bromobenzene	ND	U	0.697	5.00	ug/Kg	1
1,1,2,2-Tetrachloroethane	ND	U	1.17	5.00	ug/Kg	1
1,2,3-Trichloropropane	ND	U	1.03	5.00	ug/Kg	1
Ethyl Benzene	ND	U	0.705	5.00	ug/Kg	1
m,p-Xylene	ND	U	1.69	10.0	ug/Kg	1
Styrene	ND	U	0.576	5.00	ug/Kg	1
o-Xylene	ND	U	0.766	5.00	ug/Kg	1
Xylene (total)	ND	U	1.77	10.0	ug/Kg	1
Isopropylbenzene (Cumene)	ND	U	0.622	5.00	ug/Kg	1
n-Propylbenzene	ND	U	0.732	5.00	ug/Kg	1
2-Chlorotoluene	ND	U	0.937	5.00	ug/Kg	1
4-Chlorotoluene	ND	U	0.756	5.00	ug/Kg	1
1,3,5-Trimethylbenzene	ND	U	0.608	5.00	ug/Kg	1
tert-Butylbenzene	ND	U	0.673	5.00	ug/Kg	1
1,2,4-Trimethylbenzene	ND	U	0.637	5.00	ug/Kg	1
sec-Butylbenzene	ND	U	0.600	5.00	ug/Kg	1
1,3-Dichlorobenzene	ND	U	0.719	5.00	ug/Kg	1
4-Isopropyltoluene	ND	U	0.645	5.00	ug/Kg	1
1,4-Dichlorobenzene	ND	U	0.675	5.00	ug/Kg	1
1,2-Dichlorobenzene	ND	U	0.711	5.00	ug/Kg	1
n-Butylbenzene	ND	U	0.657	5.00	ug/Kg	1
1,2-Dibromo-3-chloropropane	ND	U	7.41	30.0	ug/Kg	1
1,2,4-Trichlorobenzene	ND	U	0.729	5.00	ug/Kg	1
Hexachlorobutadiene	ND	U	0.687	5.00	ug/Kg	1
Naphthalene	ND	U	0.909	5.00	ug/Kg	1
trans-1,4-Dichloro-2-butene	ND	U	4.20	25.0	ug/Kg	1
1,2,3-Trichlorobenzene	ND	U	0.832	5.00	ug/Kg	1
<b>Surrogates</b>						
1,2-Dichloroethane-d4	116			55.0-173	%	1
Toluene d8	105			57.0-134	%	1
4-Bromofluorobenzene	97.0			23.0-141	%	1

### Batch Information

Analytical Batch: VMS2464  
 Analytical Method: SW-846 8260B  
 Instrument: MSD9  
 Analyst: DVO  
 Analytical Date/Time: 8/10/2012 10:59:00AM

Prep Batch: VXX3802  
 Prep Method: SW-846 5035 SL  
 Prep Date/Time: 8/10/2012 8:41:15AM  
 Prep Initial Wt./Vol.: 5 g  
 Prep Extract Vol: 5 mL

**Blank Spike Summary**

Blank Spike ID: LCS-S for HBN 26935 [VXX/3802]

Blank Spike Lab ID: 84686

Date Analyzed: 08/10/2012 09:38

Spike Duplicate ID: LCSD-S for HBN 26935

[VXX/3802]

Spike Duplicate Lab ID: 84686

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489005

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)				<u>CL</u>	<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>				
Dichlorodifluoromethane	30.0	30.5	102	30.0	32.4	108	52.0-133	6.0	30.00	
Chloromethane	30.0	29.6	99	30.0	27.4	91	64.0-126	7.7	30.00	
Vinyl chloride	30.0	30.4	101	30.0	30.9	103	69.0-120	1.6	30.00	
Bromomethane	30.0	45.8	153	30.0	50.5	168*	41.0-160	9.8	30.00	
Chloroethane	30.0	32.9	110	30.0	34.9	116	69.0-126	5.9	30.00	
Trichlorofluoromethane	30.0	31.3	104	30.0	32.9	110	72.0-123	5.0	30.00	
1,1-Dichloroethene	30.0	29.1	97	30.0	30.5	102	78.0-113	4.7	30.00	
Acetone	75.0	76.7	102	75.0	68.6	91	0.0-243	11	30.00	
Methylene chloride	30.0	31.4	105	30.0	32.7	109	40.0-156	4.1	30.00	
trans-1,2-Dichloroethene	30.0	28.6	95	30.0	29.1	97	78.0-111	1.7	30.00	
tert-Butyl methyl ether (MTBE)	30.0	28.4	95	30.0	28.1	94	68.0-138	1.1	30.00	
1,1-Dichloroethane	30.0	28.8	96	30.0	29.5	98	71.0-121	2.4	30.00	
Diisopropyl Ether	30.0	29.3	98	30.0	29.3	98	60.0-141	0.0	30.00	
2,2-Dichloropropane	30.0	26.8	89	30.0	26.9	90	79.0-127	0.37	30.00	
cis-1,2-Dichloroethene	30.0	29.7	99	30.0	30.6	102	80.0-114	3.0	30.00	
2-Butanone	75.0	73.0	97	75.0	68.7	92	31.0-189	6.1	30.00	
Bromochloromethane	30.0	30.8	103	30.0	31.2	104	81.0-115	1.3	30.00	
Chloroform	30.0	29.3	98	30.0	30.3	101	76.0-114	3.4	30.00	
1,1,1-Trichloroethane	30.0	27.8	93	30.0	28.6	95	79.0-117	2.8	30.00	
Carbon tetrachloride	30.0	27.6	92	30.0	27.8	93	82.0-119	0.72	30.00	
1,1-Dichloropropene	30.0	28.3	94	30.0	29.2	97	82.0-114	3.1	30.00	
Benzene	30.0	28.6	95	30.0	29.1	97	82.0-113	1.7	30.00	
1,2-Dichloroethane	30.0	30.0	100	30.0	29.8	99	72.0-126	0.67	30.00	
Trichloroethene	30.0	28.0	93	30.0	29.0	97	82.0-108	3.5	30.00	
1,2-Dichloropropane	30.0	27.5	92	30.0	28.6	95	78.0-116	3.9	30.00	
Dibromomethane	30.0	30.0	100	30.0	29.0	97	79.0-125	3.4	30.00	
Bromodichloromethane	30.0	28.1	94	30.0	27.5	92	79.0-122	2.2	30.00	
cis-1,3-Dichloropropene	30.0	26.1	87	30.0	26.1	87	75.0-127	0.0	30.00	
4-Methyl-2-pentanone	75.0	71.2	95	75.0	66.5	89	57.0-159	6.8	30.00	
Toluene	30.0	29.3	98	30.0	29.4	98	83.0-111	0.34	30.00	
Methyl iodide	30.0	27.9	93	30.0	29.6	99	63.0-137	5.9	30.00	
trans-1,3-Dichloropropene	30.0	26.0	87	30.0	25.5	85	75.0-134	1.9	30.00	
Carbon disulfide	30.0	26.8	89	30.0	27.7	92	72.0-116	3.3	30.00	
1,1,2-Trichloroethane	30.0	29.1	97	30.0	29.9	100	73.0-121	2.7	30.00	



### Blank Spike Summary

Blank Spike ID: LCS-S for HBN 26935 [VXX/3802]

Blank Spike Lab ID: 84685

Date Analyzed: 08/10/2012 09:38

Spike Duplicate ID: CSD-S for HBN 26935

[VXX/3802]

Spike Duplicate Lab ID: 84686

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489005

### Results by SW-846 8260B

Parameter	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Tetrachloroethene	30.0	28.1	94	30.0	29.6	99	60.0-118	5.2	30.00
1,3-Dichloropropane	30.0	28.4	95	30.0	29.2	97	76.0-121	2.8	30.00
2-Hexanone	75.0	68.9	92	75.0	66.5	89	41.0-171	3.5	30.00
Dibromochloromethane	30.0	26.7	89	30.0	26.8	89	77.0-126	0.37	30.00
1,2-Dibromoethane	30.0	28.3	94	30.0	28.8	96	76.0-125	1.8	30.00
Chlorobenzene	30.0	27.8	93	30.0	29.0	97	78.0-109	4.2	30.00
1,1,1,2-Tetrachloroethane	30.0	26.9	90	30.0	26.6	89	81.0-117	1.1	30.00
Bromoform	30.0	25.8	86	30.0	24.9	83	72.0-134	3.6	30.00
Bromobenzene	30.0	27.7	92	30.0	28.6	95	76.0-113	3.2	30.00
1,1,2,2-Tetrachloroethane	30.0	28.5	95	30.0	27.8	93	76.0-129	2.5	30.00
1,2,3-Trichloropropane	30.0	27.7	92	30.0	28.2	94	70.0-145	1.8	30.00
Ethyl Benzene	30.0	26.3	88	30.0	27.0	90	72.0-115	2.6	30.00
m,p-Xylene	60.0	54.1	90	60.0	56.5	94	73.0-114	4.3	30.00
Styrene	30.0	26.8	89	30.0	27.4	91	74.0-114	2.2	30.00
o-Xylene	30.0	27.4	91	30.0	28.4	95	74.0-113	3.6	30.00
Isopropylbenzene (Cumene)	30.0	26.7	89	30.0	27.8	93	72.0-115	4.0	30.00
n-Propylbenzene	30.0	27.4	91	30.0	28.5	95	71.0-117	3.9	30.00
2-Chlorotoluene	30.0	27.7	92	30.0	28.9	96	76.0-111	4.2	30.00
4-Chlorotoluene	30.0	27.2	91	30.0	28.0	93	75.0-113	2.9	30.00
1,3,5-Trimethylbenzene	30.0	27.1	90	30.0	27.7	92	72.0-115	2.2	30.00
tert-Butylbenzene	30.0	26.8	89	30.0	27.6	92	74.0-112	2.9	30.00
1,2,4-Trimethylbenzene	30.0	27.0	90	30.0	27.8	93	73.0-114	2.9	30.00
sec-Butylbenzene	30.0	26.1	87	30.0	27.2	91	72.0-115	4.1	30.00
1,3-Dichlorobenzene	30.0	27.4	91	30.0	28.5	95	75.0-110	3.9	30.00
4-Isopropyltoluene	30.0	26.2	87	30.0	27.5	92	73.0-114	4.8	30.00
1,4-Dichlorobenzene	30.0	28.0	93	30.0	28.2	94	76.0-110	0.71	30.00
1,2-Dichlorobenzene	30.0	28.1	94	30.0	28.6	95	77.0-109	1.8	30.00
n-Butylbenzene	30.0	27.2	91	30.0	27.9	93	72.0-118	2.5	30.00
1,2-Dibromo-3-chloropropane	180	158	88	180	144	80	54.0-166	9.3	30.00
1,2,4-Trichlorobenzene	30.0	27.7	92	30.0	25.7	86	76.0-115	7.5	30.00
Hexachlorobutadiene	30.0	24.4	81	30.0	24.7	82	70.0-111	1.2	30.00
Naphthalene	30.0	26.7	89	30.0	25.7	86	71.0-129	3.8	30.00
trans-1,4-Dichloro-2-butene	150	138	92	150	134	89	62.0-164	2.9	30.00
1,2,3-Trichlorobenzene	30.0	25.3	84	30.0	25.9	86	78.0-115	2.3	30.00

Print Date: 08/17/2012

N.C. Certification # 481

**Blank Spike Summary**

Blank Spike ID: LCS-S for HBN 26935 [VXX/3802]

Blank Spike Lab ID: 84686

Date Analyzed: 08/10/2012 09:38

Spike Duplicate ID: LCSD-S for HBN 26935

[VXX/3802]

Spike Duplicate Lab ID: 84686

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489005

**Results by SW-846 8260B**

<u>Parameter</u>	Blank Spike (%)			Spike Duplicate (%)				CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)				
<b>Surrogates</b>										
1,2-Dichloroethane-d4		106			103		55.0-173			
Toluene d8		100			101		57.0-134			
4-Bromofluorobenzene		99			101		23.0-141			

**Batch Information**

Analytical Batch: VMS2464

Analytical Method: SW-846 8260B

Instrument: MSD9

Analyst: DVO

Prep Batch: VXX3802

Prep Method: SW-846 5035 SL

Prep Date/Time: 08/10/2012 08:41

Spike Init Wt./Vol.: 5 g Extract Vol: 5 mL

Dupe Init Wt./Vol.: 5 g Extract Vol: 5 mL

**Batch Summary**Analytical Method: **SW-846 8270D**Prep Method: **SW-846 3541**Prep Batch: **XXX2895**Prep Date: **08/07/2012 15:37**

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
MB for HBN 26827 [XXX/2895]	84201	08/08/2012 11:24	XMS1628	MSD10	CMP
LCS for HBN 26827 [XXX/2895]	84202	08/08/2012 11:47	XMS1628	MSD10	CMP
103DPT-04 (5-5.5ft)(83842MS)	84203	08/08/2012 12:33	XMS1628	MSD10	CMP
103DPT-04 (5-5.5ft)(83842MSD)	84204	08/08/2012 12:56	XMS1628	MSD10	CMP
104DPT-01 (5.5-6ft)	31202489002	08/08/2012 16:21	XMS1628	MSD10	CMP
104DPT-02 (6-6.5ft)	31202489003	08/08/2012 16:44	XMS1628	MSD10	CMP
104DPT-03 (5.5-6ft)	31202489004	08/08/2012 17:07	XMS1628	MSD10	CMP
104DPT-04 (7-8ft)	31202489005	08/08/2012 17:29	XMS1628	MSD10	CMP
104DPT-05 (7-8ft)	31202489006	08/08/2012 17:52	XMS1628	MSD10	CMP
104DPT-06 (7-8ft)	31202489007	08/08/2012 18:15	XMS1628	MSD10	CMP

**Method Blank**

Blank ID: MB for HBN 26827 [XXX/2895]

Blank Lab ID: 84201

QC for Samples:

31202489002, 31202489003, 31202489004, 31202489005, 31202489006, 31202489007

Matrix: Soil-Solid as dry weight

**Results by SW-846 8270D**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Phenol	ND	U	29.2	313	ug/Kg	1
Bis(2-Chloroethyl)ether	ND	U	29.2	313	ug/Kg	1
2-Chlorophenol	ND	U	16.6	313	ug/Kg	1
1,3-Dichlorobenzene	ND	U	21.1	313	ug/Kg	1
1,4-Dichlorobenzene	ND	U	22.1	313	ug/Kg	1
1,2-Dichlorobenzene	ND	U	15.6	313	ug/Kg	1
2-Methylphenol	ND	U	17.3	313	ug/Kg	1
3 and/or 4-Methylphenol	ND	U	20.3	313	ug/Kg	1
Bis(2-Chloroisopropyl)ether	ND	U	27.3	313	ug/Kg	1
n-Nitrosodi-n-propylamine	ND	U	89.6	313	ug/Kg	1
Hexachloroethane	ND	U	18.0	313	ug/Kg	1
Nitrobenzene	ND	U	18.0	313	ug/Kg	1
Isophorone	ND	U	14.2	313	ug/Kg	1
2-Nitrophenol	ND	U	15.0	313	ug/Kg	1
2,4-Dimethylphenol	ND	U	22.9	313	ug/Kg	1
Bis(2-Chloroethoxy)methane	ND	U	14.1	313	ug/Kg	1
2,4-Dichlorophenol	ND	U	18.1	313	ug/Kg	1
1,2,4-Trichlorobenzene	ND	U	27.6	313	ug/Kg	1
Naphthalene	ND	U	27.0	313	ug/Kg	1
4-Chloroaniline	ND	U	25.0	313	ug/Kg	1
Hexachlorobutadiene	ND	U	18.7	313	ug/Kg	1
4-Chloro-3-methylphenol	ND	U	15.6	313	ug/Kg	1
2-Methylnaphthalene	ND	U	25.3	313	ug/Kg	1
Hexachlorocyclopentadiene	ND	U	94.7	313	ug/Kg	1
2,4,5-Trichlorophenol	ND	U	20.9	313	ug/Kg	1
2,4,6-Trichlorophenol	ND	U	21.2	313	ug/Kg	1
2-Chloronaphthalene	ND	U	18.4	313	ug/Kg	1
2-Nitroaniline	ND	U	20.6	313	ug/Kg	1
3-Nitroaniline	ND	U	14.1	313	ug/Kg	1
Dimethyl phthalate	ND	U	24.0	313	ug/Kg	1
2,6-Dinitrotoluene	ND	U	22.4	313	ug/Kg	1
Acenaphthene	ND	U	14.2	313	ug/Kg	1
2,4-Dinitrophenol	ND	U	29.0	625	ug/Kg	1
4-Nitrophenol	ND	U	30.8	313	ug/Kg	1
Dibenzofuran	ND	U	24.5	313	ug/Kg	1
2,4-Dinitrotoluene	ND	U	15.8	313	ug/Kg	1
Fluorene	ND	U	16.6	313	ug/Kg	1
Diethyl phthalate	ND	U	16.9	313	ug/Kg	1
4-Chlorophenyl phenyl ether	ND	U	33.4	313	ug/Kg	1
4-Nitroaniline	ND	U	18.0	313	ug/Kg	1
4,6-Dinitro-2-methylphenol	ND	U	14.7	313	ug/Kg	1
Diphenylamine	ND	U	14.1	313	ug/Kg	1

**Method Blank**

Blank ID: MB for HBN 26827 [XXX/2895]

Matrix: Soil-Solid as dry weight

Blank Lab ID: 84201

QC for Samples:

31202489002, 31202489003, 31202489004, 31202489005, 31202489006, 31202489007

**Results by SW-846 8270D**

Parameter	Result	Qual	DL	LOQ/CL	Units	DE
4-Bromophenyl phenyl ether	ND	U	20.6	313	ug/Kg	1
Hexachlorobenzene	ND	U	29.6	313	ug/Kg	1
Pentachlorophenol	ND	U	25.0	313	ug/Kg	1
Phenanthrene	ND	U	20.6	313	ug/Kg	1
Anthracene	ND	U	13.9	313	ug/Kg	1
Di-n-butyl phthalate	ND	U	14.8	313	ug/Kg	1
Fluoranthene	ND	U	29.4	313	ug/Kg	1
Pyrene	ND	U	13.2	313	ug/Kg	1
Butyl benzyl phthalate	ND	U	27.2	313	ug/Kg	1
Benzo(a)anthracene	ND	U	17.2	313	ug/Kg	1
3,3'-Dichlorobenzidine	ND	U	15.0	313	ug/Kg	1
Chrysene	ND	U	36.4	313	ug/Kg	1
Bis(2-Ethylhexyl)phthalate	ND	U	15.0	313	ug/Kg	1
Di-n-octyl phthalate	ND	U	17.3	313	ug/Kg	1
Benzo(b)fluoranthene	ND	U	18.0	313	ug/Kg	1
Benzo(k)fluoranthene	ND	U	37.5	313	ug/Kg	1
Benzo(a)pyrene	ND	U	17.7	313	ug/Kg	1
Indeno(1,2,3-cd)pyrene	ND	U	24.4	313	ug/Kg	1
Dibenz(a,h)anthracene	ND	U	14.1	313	ug/Kg	1
Benzo(g,h,i)perylene	ND	U	49.8	313	ug/Kg	1
Benzoic acid	ND	U	6.94	313	ug/Kg	1
Acenaphthylene	ND	U	13.2	313	ug/Kg	1
<b>Surrogates</b>						
2-Fluorophenol	84.0			42.0-123	%	1
Phenol-d6	97.0			48.0-125	%	1
Nitrobenzene-d5	92.0			46.0-117	%	1
2-Fluorobiphenyl	102			48.0-123	%	1
2,4,6-Tribromophenol	99.0			41.0-129	%	1
Terphenyl-d14	103			44.0-140	%	1

**Batch Information**

Analytical Batch: XMS1628

Prep Batch: XXX2895

Analytical Method: SW-846 8270D

Prep Method: SW-846 3541

Instrument: MSD10

Prep Date/Time: 8/7/2012 3:37:46PM

Analyst: CMP

Prep Initial Wt./Vol.: 32 g

Analytical Date/Time: 8/8/2012 11:24:00AM

Prep Extract Vol: 10 mL

Print Date: 08/17/2012

N.C. Certification # 481

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 26827 [XXX/2895]

Blank Spike Lab ID: 84202

Date Analyzed: 08/08/2012 11:47

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489002, 31202489003, 31202489004, 31202489005, 31202489006, 31202489007

**Results by SW-846 8270D****Blank Spike (ug/Kg)**

<u>Parameter</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>CL</u>
Phenol	3130	2880	92	67.0-112
Bis(2-Chloroethyl)ether	3130	2650	85	63.0-116
2-Chlorophenol	3130	2940	94	67.0-109
1,3-Dichlorobenzene	3130	2860	91	66.0-109
1,4-Dichlorobenzene	3130	2880	92	65.0-112
1,2-Dichlorobenzene	3130	2900	93	67.0-110
2-Methylphenol	3130	2950	94	68.0-110
3 and/or 4-Methylphenol	6250	6100	98	66.0-113
Bis(2-Chloroisopropyl)ether	3130	2380	76	64.0-114
n-Nitrosodi-n-propylamine	3130	2570	82	66.0-111
Hexachloroethane	3130	2850	91	64.0-110
Nitrobenzene	3130	2760	88	69.0-112
Isophorone	3130	2860	91	69.0-108
2-Nitrophenol	3130	3060	98	65.0-117
2,4-Dimethylphenol	3130	3020	97	69.0-112
Bis(2-Chloroethoxy)methane	3130	2890	93	68.0-112
Benzoic acid	3130	2020	65	0.00-203
2,4-Dichlorophenol	3130	3160	101	67.0-118
1,2,4-Trichlorobenzene	3130	3080	98	65.0-114
Naphthalene	3130	3000	96	70.0-111
4-Chloroaniline	3130	2300	74	41.0-93.0
Hexachlorobutadiene	3130	3100	99	63.0-124
4-Chloro-3-methylphenol	3130	3140	100	70.0-114
2-Methylnaphthalene	3130	3000	96	69.0-110
Hexachlorocyclopentadiene	3130	3220	103	0.00-1080
2,4,5-Trichlorophenol	3130	3350	107	66.0-119
2,4,6-Trichlorophenol	3130	3160	101	67.0-119
2-Chloronaphthalene	3130	2720	87	57.0-96.0
2-Nitroaniline	3130	2390	77	61.0-100
3-Nitroaniline	3130	2610	83	48.0-103
Dimethyl phthalate	3130	2930	94	69.0-118
2,6-Dinitrotoluene	3130	3050	98	69.0-122
Acenaphthene	3130	2970	95	68.0-111
2,4-Dinitrophenol	3130	2810	90	12.0-125

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 26827 [XXX/2895]

Blank Spike Lab ID: 84202

Date Analyzed: 08/08/2012 11:47

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489002, 31202489003, 31202489004, 31202489005, 31202489006, 31202489007

**Results by SW-846 8270D****Blank Spike (ug/Kg)**

<u>Parameter</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>CL</u>
4-Nitrophenol	3130	2970	95	45.0-120
Dibenzofuran	3130	2980	95	71.0-114
2,4-Dinitrotoluene	3130	3020	97	68.0-123
Fluorene	3130	2990	96	66.0-116
Diethyl phthalate	3130	2870	92	68.0-114
4-Chlorophenyl phenyl ether	3130	3090	99	66.0-120
4-Nitroaniline	3130	2810	90	66.0-114
4,6-Dinitro-2-methylphenol	3130	3130	100	24.0-123
Diphenylamine	3130	2930	94	60.0-118
4-Bromophenyl phenyl ether	3130	3090	99	63.0-118
Hexachlorobenzene	3130	2850	91	62.0-112
Pentachlorophenol	3130	2990	96	34.0-125
Phenanthrene	3130	3080	99	60.0-122
Anthracene	3130	3150	101	63.0-113
Di-n-butyl phthalate	3130	3210	103	64.0-121
Fluoranthene	3130	3290	105	64.0-118
Pyrene	3130	2980	95	67.0-116
Butyl benzyl phthalate	3130	2740	88	68.0-118
Benzo(a)anthracene	3130	2940	94	65.0-118
3,3'-Dichlorobenzidine	3130	2890	92	54.0-118
Chrysene	3130	2950	94	66.0-118
Bis(2-Ethylhexyl)phthalate	3130	2810	90	67.0-123
Di-n-octyl phthalate	3130	3060	98	62.0-131
Benzo(b)fluoranthene	3130	2860	91	63.0-119
Benzo(k)fluoranthene	3130	3060	98	69.0-118
Benzo(a)pyrene	3130	3120	100	69.0-113
Indeno(1,2,3-cd)pyrene	3130	3310	106	64.0-123
Dibenz(a,h)anthracene	3130	3360	107	64.0-123
Benzo(g,h,i)perylene	3130	3420	110	57.0-128
Acenaphthylene	3130	3160	101	72.0-115
<b>Surrogates</b>				
2-Fluorophenol		85		42.0-123
Phenol-d6		97		48.0-125
Nitrobenzene-d5		93		46.0-117

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 26827 [XXX/2895]

Blank Spike Lab ID: 84202

Date Analyzed: 08/08/2012 11:47

Matrix: Soil-Solid as dry weight

QC for Samples: 31202489002, 31202489003, 31202489004, 31202489005, 31202489006, 31202489007

**Results by SW-846 8270D****Blank Spike (%)**

<u>Parameter</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>CL</u>
2-Fluorobiphenyl		101		48.0-123
2,4,6-Tribromophenol		112		41.0-129
Terphenyl-d14		96		44.0-140

**Batch Information**

Analytical Batch: XMS1628

Analytical Method: SW-846 8270D

Instrument: MSD10

Analyst: CMP

Prep Batch: XXX2895

Prep Method: SW-846 3541

Prep Date/Time: 08/07/2012 15:37

Spike Init Wt./Vol.: 32 g Extract Vol: 10 mL

Dupe Init Wt./Vol.: Extract Vol:

**Batch Summary**Analytical Method: **SW-846 8270D**Prep Method: **SW-846 3520C**Prep Batch: **XXX2897**Prep Date: **08/07/2012 16:58**

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
MB for HBN 26835 [XXX/2897]	84216	08/09/2012 15:58	XMS1630	MSD10	CMP
LCS for HBN 26835 [XXX/2897]	84217	08/09/2012 16:43	XMS1630	MSD10	CMP
59-BW-6-12 (TCLP)(83302MS)	84218	08/09/2012 18:37	XMS1630	MSD10	CMP
59-BW-6-12 (TCLP)(83302MSD)	84219	08/09/2012 19:00	XMS1630	MSD10	CMP
104DPT-02	31202489001	08/09/2012 22:25	XMS1630	MSD10	CMP

Print Date: 08/17/2012

N.C. Certification # 481

**Method Blank**

Blank ID: MB for HBN 26835 [XXX/2897]

Blank Lab ID: 84216

QC for Samples:

31202489001

Matrix: Water

**Results by SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
Phenol	ND	U	2.36	5.00	ug/L	1
Bis(2-Chloroethyl)ether	ND	U	2.21	5.00	ug/L	1
2-Chlorophenol	ND	U	2.81	5.00	ug/L	1
1,3-Dichlorobenzene	ND	U	1.65	5.00	ug/L	1
1,4-Dichlorobenzene	ND	U	1.63	5.00	ug/L	1
1,2-Dichlorobenzene	ND	U	1.71	5.00	ug/L	1
2-Methylphenol	ND	U	2.07	5.00	ug/L	1
3 and/or 4-Methylphenol	ND	U	2.24	5.00	ug/L	1
Bis(2-Chloroisopropyl)ether	ND	U	2.04	5.00	ug/L	1
n-Nitrosodi-n-propylamine	ND	U	2.23	5.00	ug/L	1
Hexachloroethane	ND	U	1.40	5.00	ug/L	1
Nitrobenzene	ND	U	2.19	5.00	ug/L	1
Isophorone	ND	U	2.09	5.00	ug/L	1
2-Nitrophenol	ND	U	1.97	5.00	ug/L	1
2,4-Dimethylphenol	ND	U	2.21	5.00	ug/L	1
Bis(2-Chloroethoxy)methane	ND	U	2.12	5.00	ug/L	1
2,4-Dichlorophenol	ND	U	2.06	5.00	ug/L	1
1,2,4-Trichlorobenzene	ND	U	1.73	5.00	ug/L	1
Naphthalene	ND	U	1.94	5.00	ug/L	1
4-Chloroaniline	ND	U	1.88	25.0	ug/L	1
Hexachlorobutadiene	ND	U	1.52	5.00	ug/L	1
4-Chloro-3-methylphenol	ND	U	1.98	5.00	ug/L	1
2-Methylnaphthalene	ND	U	1.94	5.00	ug/L	1
Hexachlorocyclopentadiene	ND	U	0.788	10.0	ug/L	1
2,4,5-Trichlorophenol	ND	U	2.08	5.00	ug/L	1
2,4,6-Trichlorophenol	ND	U	2.03	5.00	ug/L	1
2-Chloronaphthalene	ND	U	2.00	5.00	ug/L	1
2-Nitroaniline	ND	U	1.69	5.00	ug/L	1
3-Nitroaniline	ND	U	1.65	25.0	ug/L	1
Dimethyl phthalate	ND	U	2.14	5.00	ug/L	1
2,6-Dinitrotoluene	ND	U	1.88	5.00	ug/L	1
Acenaphthene	ND	U	2.06	5.00	ug/L	1
2,4-Dinitrophenol	ND	U	0.668	25.0	ug/L	1
4-Nitrophenol	ND	U	1.27	25.0	ug/L	1
Dibenzofuran	ND	U	2.22	5.00	ug/L	1
2,4-Dinitrotoluene	ND	U	1.84	5.00	ug/L	1
Fluorene	ND	U	2.44	5.00	ug/L	1
Diethyl phthalate	ND	U	2.10	5.00	ug/L	1
4-Chlorophenyl phenyl ether	ND	U	2.46	5.00	ug/L	1
4-Nitroaniline	ND	U	1.68	25.0	ug/L	1
4,6-Dinitro-2-methylphenol	ND	U	0.494	25.0	ug/L	1
Diphenylamine	ND	U	2.02	5.00	ug/L	1

Print Date: 08/17/2012

N.C. Certification # 481

**Method Blank**

Blank ID: MB for HBN 26835 [XXX/2897]

Blank Lab ID: 84216

QC for Samples:  
31202489001

Matrix: Water

**Results by SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
4-Bromophenyl phenyl ether	ND	U	2.04	5.00	ug/L	1
Hexachlorobenzene	ND	U	1.93	5.00	ug/L	1
Pentachlorophenol	ND	U	1.55	25.0	ug/L	1
Phenanthrene	ND	U	1.99	5.00	ug/L	1
Anthracene	ND	U	1.93	5.00	ug/L	1
Di-n-butyl phthalate	ND	U	1.91	5.00	ug/L	1
Fluoranthene	ND	U	2.02	5.00	ug/L	1
Pyrene	ND	U	2.01	5.00	ug/L	1
Butyl benzyl phthalate	ND	U	1.89	5.00	ug/L	1
Benzo(a)anthracene	ND	U	1.96	5.00	ug/L	1
3,3'-Dichlorobenzidine	ND	U	1.75	10.0	ug/L	1
Chrysene	ND	U	2.20	5.00	ug/L	1
Bis(2-Ethylhexyl)phthalate	ND	U	1.95	5.00	ug/L	1
Di-n-octyl phthalate	ND	U	1.46	5.00	ug/L	1
Benzo(b)fluoranthene	ND	U	1.96	5.00	ug/L	1
Benzo(k)fluoranthene	ND	U	2.31	5.00	ug/L	1
Benzo(a)pyrene	ND	U	1.86	5.00	ug/L	1
Indeno(1,2,3-cd)pyrene	ND	U	2.02	5.00	ug/L	1
Dibenz(a,h)anthracene	ND	U	2.02	5.00	ug/L	1
Benzo(g,h,i)perylene	ND	U	2.15	5.00	ug/L	1
Benzoic acid	ND	U	2.28	5.00	ug/L	1
Acenaphthylene	ND	U	2.00	5.00	ug/L	1
<b>Surrogates</b>						
2-Fluorophenol	74.0			33.1-118	%	1
Phenol-d6	87.0			49.0-120	%	1
Nitrobenzene-d5	86.0			46.0-118	%	1
2-Fluorobiphenyl	70.0			50.0-107	%	1
2,4,6-Tribromophenol	93.0			29.3-152	%	1
Terphenyl-d14	96.0			22.1-142	%	1

**Batch Information**

Analytical Batch: XMS1630  
 Analytical Method: SW-846 8270D  
 Instrument: MSD10  
 Analyst: CMP  
 Analytical Date/Time: 8/9/2012 3:58:00PM

Prep Batch: XXX2897  
 Prep Method: SW-846 3520C  
 Prep Date/Time: 8/7/2012 4:58:06PM  
 Prep Initial Wt./Vol.: 1000 mL  
 Prep Extract Vol: 5 mL

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 26835 [XXX/2897]

Blank Spike Lab ID: 84217

Date Analyzed: 08/09/2012 16:43

Matrix: Water

QC for Samples: 31202489001

**Results by SW-846 8270D**

<u>Parameter</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>CL</u>
Phenol	50.0	44.6	89	57.0-113
Bis(2-Chloroethyl)ether	50.0	43.1	86	61.0-117
2-Chlorophenol	50.0	46.1	92	57.0-110
1,3-Dichlorobenzene	50.0	32.4	65	22.0-101
1,4-Dichlorobenzene	50.0	33.3	67	25.0-102
1,2-Dichlorobenzene	50.0	34.6	69	29.0-102
2-Methylphenol	50.0	42.2	84	55.0-110
3 and/or 4-Methylphenol	100	91.6	92	53.0-118
Bis(2-Chloroisopropyl)ether	50.0	36.9	74	56.0-112
n-Nitrosodi-n-propylamine	50.0	38.1	76	53.0-115
Hexachloroethane	50.0	30.9	62	11.0-104
Nitrobenzene	50.0	43.9	88	63.0-115
Isophorone	50.0	45.4	91	64.0-121
2-Nitrophenol	50.0	47.7	95	58.0-115
2,4-Dimethylphenol	50.0	24.8	50	40.0-104
Bis(2-Chloroethoxy)methane	50.0	46.0	92	62.0-107
Benzoic acid	50.0	37.2	74	8.00-186
2,4-Dichlorophenol	50.0	49.7	99	58.0-118
1,2,4-Trichlorobenzene	50.0	43.3	87	45.0-108
Naphthalene	50.0	44.8	90	52.0-110
4-Chloroaniline	50.0	39.2	78	44.0-115
Hexachlorobutadiene	50.0	41.7	83	25.0-115
4-Chloro-3-methylphenol	50.0	48.0	96	56.0-119
2-Methylnaphthalene	50.0	47.5	95	55.0-112
Hexachlorocyclopentadiene	50.0	51.7	103	0.00-1430
2,4,5-Trichlorophenol	50.0	52.8	106	59.0-119
2,4,6-Trichlorophenol	50.0	47.8	96	58.0-116
2-Chloronaphthalene	50.0	42.4	85	57.0-105
2-Nitroaniline	50.0	38.2	76	53.0-108
3-Nitroaniline	50.0	42.4	85	54.0-116
Dimethyl phthalate	50.0	47.2	94	66.0-119
2,6-Dinitrotoluene	50.0	48.9	98	65.0-121
Acenaphthene	50.0	46.3	93	60.0-114
2,4-Dinitrophenol	50.0	46.3	93	1.00-157

Print Date: 08/17/2012

N.C. Certification # 481

**Blank Spike Summary**

Blank Spike ID: LCS for HBN 26835 [XXX/2897]

Blank Spike Lab ID: 84217

Date Analyzed: 08/09/2012 16:43

Matrix: Water

QC for Samples: 31202489001

**Results by SW-846 8270D****Blank Spike (ug/L)**

<u>Parameter</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>CL</u>
4-Nitrophenol	50.0	42.3	85	38.0-123
Dibenzofuran	50.0	47.6	95	64.0-120
2,4-Dinitrotoluene	50.0	48.1	96	65.0-125
Fluorene	50.0	48.2	96	52.0-120
Diethyl phthalate	50.0	46.7	93	59.0-122
4-Chlorophenyl phenyl ether	50.0	49.7	99	61.0-113
4-Nitroaniline	50.0	43.0	86	53.0-123
4,6-Dinitro-2-methylphenol	50.0	48.9	98	30.0-128
Diphenylamine	50.0	44.5	89	51.0-114
4-Bromophenyl phenyl ether	50.0	48.7	97	61.0-109
Hexachlorobenzene	50.0	46.0	92	53.0-110
Pentachlorophenol	50.0	46.9	94	32.0-132
Phenanthrene	50.0	49.3	99	53.0-115
Anthracene	50.0	44.8	90	50.0-113
Di-n-butyl phthalate	50.0	50.7	101	59.0-123
Fluoranthene	50.0	51.8	104	54.0-119
Pyrene	50.0	46.4	93	60.0-120
Butyl benzyl phthalate	50.0	43.4	87	61.0-128
Benzo(a)anthracene	50.0	45.9	92	57.0-119
3,3'-Dichlorobenzidine	50.0	41.4	83	37.0-136
Chrysene	50.0	47.3	95	59.0-117
Bis(2-Ethylhexyl)phthalate	50.0	45.2	90	63.0-122
Di-n-octyl phthalate	50.0	48.6	97	62.0-129
Benzo(b)fluoranthene	50.0	45.0	90	59.0-120
Benzo(k)fluoranthene	50.0	49.0	98	62.0-124
Benzo(a)pyrene	50.0	46.0	92	54.0-123
Indeno(1,2,3-cd)pyrene	50.0	51.6	103	59.0-127
Dibenz(a,h)anthracene	50.0	52.2	104	59.0-129
Benzo(g,h,i)perylene	50.0	53.4	107	60.0-126
Acenaphthylene	50.0	46.9	94	58.0-117
<b>Surrogates</b>				
2-Fluorophenol		53		33.1-118
Phenol-d6		64		49.0-120
Nitrobenzene-d5		61		46.0-118

Print Date: 08/17/2012

N.C. Certification # 481



### Blank Spike Summary

Blank Spike ID: LCS for HBN 26835 [XXX/2897]

Blank Spike Lab ID: 84217

Date Analyzed: 08/09/2012 16:43

Matrix: Water

QC for Samples: 31202489001

### Results by SW-846 8270D

#### Blank Spike (%)

Parameter	Spike	Result	Rec (%)	CL
2-Fluorobiphenyl		60		50.0-107
2,4,6-Tribromophenol		73		29.3-152
Terphenyl-d14		63		22.1-142

### Batch Information

Analytical Batch: XMS1630

Analytical Method: SW-846 8270D

Instrument: MSD10

Analyst: CMP

Prep Batch: XXX2897

Prep Method: SW-846 3520C

Prep Date/Time: 08/07/2012 16:58

Spike Init Wt./Vol.: 1000 mL Extract Vol: 5 mL

Dupe Init Wt./Vol.: Extract Vol:

Print Date: 08/17/2012

N.C. Certification # 481



**SGS**

## **CHAIN OF CUSTODY**

**SGS ANALYTICAL PERSPECTIVES**  
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Wilmington, NC 28405  
+1 910 350 1903  
[WWW.SGS.COM](http://WWW.SGS.COM)

CLIENT: NCOST / CATCH		PAGE <u>1</u>			
CONTACT: Ben Ash & Catrin		OF <u>1</u>			
PHONE NO: 410 1452-5861					
PROJECT: NCOST (Revetment Site / PNSD/HBBS)					
REPORTS TO:		35781-1-2			
EMAIL:		U-3315			
INVOICE TO:		Pitt County			
QUOTE #:		124			
P.O. NUMBER					
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	REMARKS
	104 DPT-02	8-2-12		H2O	✓ ✓ ✓ ✓ ✓
	104 DPT-01 (5.5-6')		9:30	SOIL	✓ ✓ ✓ ✓ ✓
	104 DPT-02 (6-6.5')		9:50		✓ ✓ ✓ ✓ ✓
	104 DPT-03 (5.5-6')		10:00		✓ ✓ ✓ ✓ ✓
	104 DPT-04 (7-8')		10:20		✓ ✓ ✓ ✓ ✓
	104 DPT-05 (7-8')		10:30		✓ ✓ ✓ ✓ ✓
	104 DPT-06 (7-8')		10:50		✓ ✓ ✓ ✓ ✓
COLLECTED/RElinquished By: (1)		DATE	TIME	RECEIVED BY:	REPORT LEVEL:
<u>Ben Ash</u>		8-3-12	1:50p	<u>Jeff Jan</u>	<input checked="" type="checkbox"/> Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level IV <input type="checkbox"/> Rush: _____
Relinquished By: (2)		Date	Time	Received By:	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Trust Fund
Relinquished By: (3)		Date	Time	Received By:	<input type="checkbox"/> Del <input checked="" type="checkbox"/> EDD: <u>Summary</u> Other: _____
Received For Laboratory By:		Date	Time	Coc Seal: <input type="checkbox"/> INTACT <input checked="" type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT	Shipping Carrier: _____
				Sample Receipt Temp: C <u>26°C</u>	Shipping Ticket No.: _____
					Notes: _____

SGS-00055 (Rev 2)

**ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.**

**White - Retained by Lab**  
**Yellow - Retained by Client**

# SGS North America Inc.

## Sample Receipt Checklist (SRC)

Client: NCDOT-Catlin Work Order No.: 31202489

1.  Shipped  
 Hand Delivered Notes:
2.  COC Present on Receipt  
 No COC  
 Additional Transmittal Forms
3.  Custody Tape on Container  
 No Custody Tape
4.  Samples Intact  
 Samples Broken / Leaking
5.  Chilled on Receipt      Actual Temp.(s) in °C: 2.6  
 Ambient on Receipt  
 Walk-in on Ice; Coming down to temp.  
 Received Outside of Temperature Specifications
6.  Sufficient Sample Submitted  
 Insufficient Sample Submitted
7.  Chlorine absent  
 HNO<sub>3</sub> < 2  
 HCL < 2  
 Additional Preservatives verified (see notes)
8.  Received Within Holding Time  
 Not Received Within Holding Time
9.  No Discrepancies Noted  
 Discrepancies Noted  
 NCDENR notified of Discrepancies\*
10.  No Headspace present in VOC vials  
 Headspace present in VOC vials >6mm

Comments: Collection time for 104DPT-02 was not on CoC, but was found on the samples' labels.

Inspected and Logged in by: AV

Date: Mon-8/6/12 00:00

**APPENDIX D  
PHOTOGRAPHS**

**PARCEL 104, BRADLEY SYDNR PROPERTIES, LLC – OFFICE SPACE  
930 EVANS STREET**



From Southeastern portion of property along Evans St.  
looking West across the site.



From South-central portion of property along West 10<sup>th</sup> Street  
looking Northwest across site.