PRELIMINARY SITE ASSESSMENT
FOR
PARCEL 102, WARD HOLDINGS, LLC – VACANT LOT
111B WEST 10TH 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

SEPTEMBER 20, 2012
REVISED NOVEMBER 20, 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 102, Ward Holdings, LLC property (vacant lot). The parcel/property is located at 111B West 10th 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 a retail store front parking lot. The site is located on the south side of West 10th Street approximately 130 feet west of East Evans Street. The architectural style of the building suggests that this property may have operated as a gas station/service station at one time. There was no observed visual evidence of USTs. 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 102). 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 102, Ward Holdings, LLC property (vacant lot), 111B West 10th 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 81. 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 numbers 1017, 1023, and 1020.

North Carolina Department of Environment and Natural Resources (NCDENR) UST Section personnel were interviewed and the NCDENR UST database 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 July 16, 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 102 followed by "DPT" and consecutive numbers starting with "01" (example: 102DPT-01). Borings were located at proposed catch basin numbers 1017, 1020, and 1023. 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, three (3) 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: 102DPT-01(2-3 ft)]. Two (2) soil sample intervals were selected for

laboratory analysis from each of the 102DPT-01 and -02 borings.

The sample identifications are included on the Boring Logs in Appendix B and the laboratory analytical Chain of Custody in Appendix C.

Two (2) of the PowerProbe borings were terminated at approximately eight (8) feet BLS. The 102DPT-03 boring was terminated at 12 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 five (5) 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

Three (3) 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, and

contaminated soil volume in the cut section. 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 pipe width to one (1) foot below the final drainage feature installation invert elevation. 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 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) 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 NCDENR UST database does not list any tanks registered at the site. NCDENR DSCA Program personnel were also interviewed. The site does not appear on the NCDENR DSCA site list. There are no UST or DSCA sites adjacent to the subject site. A former dry cleaning business building is located adjacent (east) of the subject site.

Historical aerial photographs were also reviewed and there was no evidence of a gas/service station at the site.

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 are no buildings or structures currently at the site.

Soil and Groundwater

Sandy clay / clayey sand soils with varying amounts of silt and clean sands were encountered across the project site. No petroleum/hydrocarbon odor was noted in soils collected from any of the borings. Moist soils were noted approximately four (4) feet deep. 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 at 230 micrograms per kilogram (ug/kg) in the 102DPT-03 (4-5ft) soil sample collected from proposed catch basin 1020 location. The "Perc" concentrations at proposed catch basin 1020 location are above the Soil-To-Groundwater (STGW) MSCC of 7.4 ug/kg; however, they are well below the Inactive Hazardous Sites Branch (IHSB) Preliminary Health-Based Soil Remediation Goal of 17,000 ug/kg. 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 was revealed in the 102DPT-03 boring (at proposed catch basin number 1020) groundwater sample at a concentration of 35.8 micrograms per liter (ug/L) which is above the 2L GWQS of 0.7 ug/L. 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 6.9 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 will be considered impacted for handling and disposal purposes. The estimated extent of Tetrachloroethene contaminated soil greater than the STGW MSCC 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 6.5 feet BLS.

The area illustrated with a red dashed line and skull symbols on Sheet 2 is roughly 2,880 square feet. If all soils within this area were excavated to 6.5 feet deep, the volume would be approximately 693 cubic yards. However, it should be noted that generally across the site there were no contaminated soil indications (visual, hydrocarbon odor, or elevated OVA/PID readings) from above four (4) feet BLS.

The estimated contaminated soil volume to be removed for installation of the proposed catch basin number and associated piping (15 inch and 18 inch pipe) is based on an assumed excavation 3.25 feet wide from proposed catch basin 1020 to the eastern property line (28 feet) and 3.5 feet wide from the proposed catch basin 1020 to the northern property line (11 feet. Also, it is assumed, (based on information provided by NCDOT) that the current surface elevation at the proposed catch basin 1020 location is 45.2 feet and the bottom of the excavation necessary for proposed drainage feature construction will be approximately 40.20 feet. Therefore, an excavation for drainage feature installation from the estimated extent of the contaminated soil east of proposed catch basin 1020 to the property line (28 linear feet long by 3.25 feet wide and 5 feet deep) and north of the proposed catch basin 1020 location to the property line (11 linear feet long by 3.5 feet wide by 5 feet deep) will be roughly 24 cubic yards.

The proposed cut section near Alignment -L- Station 81 that is within the estimated extent of contaminated soil is approximately 88 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. The potential source for the "Perc" contamination is likely associated with former dry cleaning operations in the adjacent building. A rough volume estimate of the contaminated soil volume is 693 cubic yards. The approximate contaminated soil volume to be removed for drainage feature installation within the property for catch basin 1020 and piping installation is 24 cubic yards. The cut section within the estimated extent of contaminated soil is roughly 88 cubic yards. However, these volume estimates include soil near the surface that may not be contaminated. Additionally, where groundwater contamination is known or suspected and

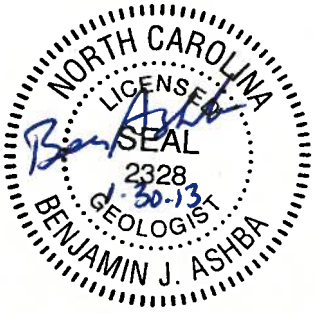
excavation is necessary into the water table, those excavated soils may be contaminated. It may be possible to reduce the soil volume requiring treatment/disposal by screening soils during excavation activities. Subsequent sampling may be necessary for possible waste disposal determination.

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 102, Ward Holdings, LLC– Parking Lot
111 B W. 10th Street

Sample ID	Method →		EPA Method 8260B				EPA Method 8270D Base Neutral	
	Contaminant of Concern →		Acetone	Methylene chloride	Tetrachloroethene ("Perc")	All other EPA Method 8260B Parameters	Bis(2-Ethylhexyl)phthalate	All other EPA Method 8270D Base Neutral Parameters
	Date Collected	Location						
102DPT-01 (2-3ft)	7/16/12	@ CB1017	28.5 J	3.60 J	<0.637	BMDL	<18.5	BMDL
102DPT-01 (4-5ft)	7/16/12	@ CB1017	<1.31	3.69 J	<0.793	BMDL	<21.5	BMDL
102DPT-02 (2-3ft)	7/16/12	@ CB1023	19.6 J	1.69 J	<0.622	BMDL	<16.8	BMDL
102DPT-02 (3-4ft)	7/16/12	@ CB1023	20.0 J	3.27 J	<0.643	BMDL	40.9 J	BMDL
102DPT-03 (4-5ft)	7/16/12	@ CB 1020	<45.5	<8.00	**230**	BMDL	<18.3	BMDL
Preliminary Residential Health Based SRG (ug/kg)			12,000,000	56,000	17,000	Varies	35,000	Varies
Preliminary Industrial Health Based SRG (ug/kg)			100,000,000	620,000	82,000	Varies	120,000	Varies
Protection of Groundwater Preliminary SRG(ug/kg)			24,000	23	5	Varies	7,200	Varies
Residential MSCC (ug/kg)			14,000,000	85,000	1,100	Varies	46,000	Varies
Industrial/Commercial MSCC (ug/kg)			360,000,000	763,000	10,000	Varies	410,000	Varies
Soil-To-Groundwater MSCC (ug/kg)			24,000	20	7.4	Varies	6,600	Varies
NC "Contained-Out" Level for Unrestricted Use (ug/kg)			2,800	20	7.4	Varies	6,700	Varies

All results in micrograms per kilogram (ug/kg).
Sample depth below land surface provided in parenthesis as part of the sample identification.
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
CB = Proposed Catch Basin
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 MSCC or Soil Remediation Goal (SRG).

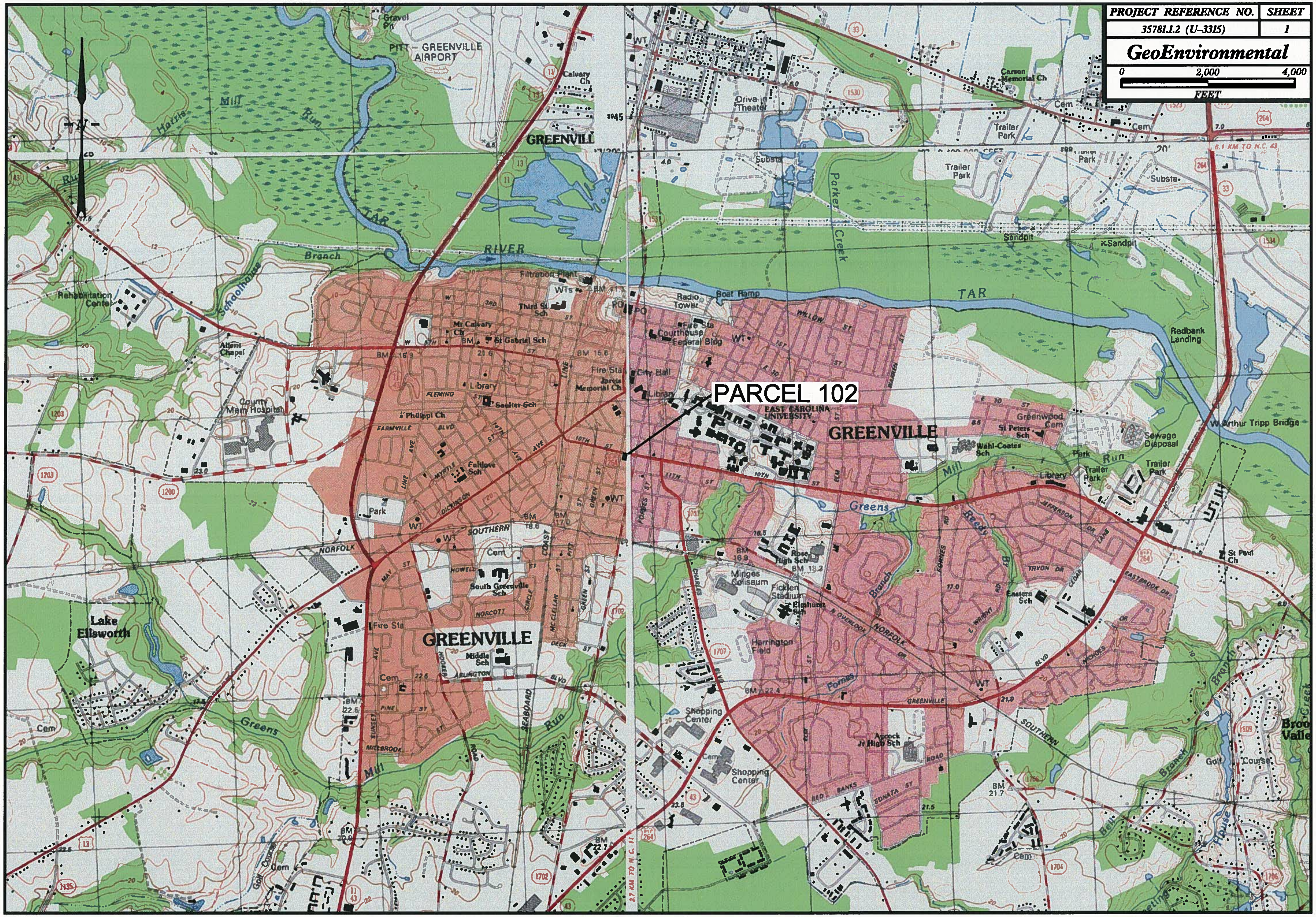
TABLE 2
SUMMARY OF GROUNDWATER LABORATORY RESULTS - EPA METHODS 8260B AND 8270D BASE NEUTRAL

Parcel 102, Ward Holdings, LLC– Parking Lot
111 B W. 10th Street

Sample ID	Method →		EPA Method 8260B								EPA Method 8270D BN
	Contaminant of Concern →		2-Butanone	4-Isopropyltoluene	Benzene	Carbon disulfide	Tetrachloroethene ("Perc")	Toluene	Trichloroethene (TCE)	All other EPA Method 8260B Parameters	All EPA Method 8270D Base Neutral (BN) Parameters
	Date Collected	Location									
102DPT-03	7/16/12	@ CB 1020	1.07 J	1.37	0.130 J	0.380 J	**35.8**	0.380 J	0.830 J	BMDL	BMDL
2L GWQS (ug/L)			4,000	25	1	700	0.7	600	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
J = Estimated Concentration
CB = Proposed Catch Basin
Bold results indicate concentrations above the NCAC T15A:02L Groundwater Quality Standards (2L GWQS).

SHEETS


PROJECT REFERENCE NO.
SHEET
35781.1.2 (U-3315)
1
GeoEnvironmental
0
2,000
4,000
FEET
PARCEL 102
GREENVILLE
EAST CAROLINA UNIVERSITY
TAR RIVER
PITT - GREENVILLE AIRPORT
Lake Ellsworth
Parker Creek
Greens Mill Run
Harris Mill Run
Schoolhouse Branch
Redbank Landing
Arthur Tripp Bridge
Sewage Disposal
Minges Coliseum
Ficklen Stadium
Harrington Field
Rose High Sch
Elmhurst Sch
Eastern Sch
Wahl-Coates Sch
South Greenville Sch
Middle Sch
Sadler Sch
St Gabriel Sch
Third St Sch
Aycock Jr High Sch
County Mem Hospital
Rehabilitation Center
Filtration Plant
Boat Ramp
Radio Tower
Courthouse
Federal Bldg
City Hall
Library
Shopping Center
Trailer Park
Drive-in Theater
Sandpit
6.1 KM TO N.C. 43
27 KM TO N.C. 11

PROJECT REFERENCE NO.	SHEET NO.
U-3[illegible]	1-A

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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 Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard

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
- U/G Power Cable Hand Hole
- H-Frame Pole
- Recorded U/G Power Line
- Designated U/G Power Line (S.U.E.*)

TELEPHONE:
- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole
- Telephone Booth
- Telephone Pedestal
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole
- Recorded U/G Telephone Cable
- Designated U/G Telephone Cable (S.U.E.*)
- Recorded U/G Telephone Conduit
- Designated U/G Telephone Conduit (S.U.E.*)
- Recorded U/G Fiber Optics Cable
- Designated U/G Fiber Optics Cable (S.U.E.*)

WATER:
- Water Manhole
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line
- Designated U/G Water Line (S.U.E.*)
- Above Ground Water Line

TV:
- TV Satellite Dish
- TV Pedestal
- TV Tower
- U/G TV Cable Hand Hole
- Recorded U/G TV Cable
- Designated U/G TV Cable (S.U.E.*)
- Recorded U/G Fiber Optic Cable
- Designated U/G Fiber Optic Cable (S.U.E.*)

GAS:
- Gas Valve
- Gas Meter
- Recorded U/G Gas Line
- Designated U/G Gas Line (S.U.E.*)
- Above Ground Gas Line

SANITARY SEWER:
- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line
- Above Ground Sanitary Sewer
- Recorded SS Forced Main Line
- Designated SS Forced Main Line (S.U.E.*)

MISCELLANEOUS:
- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box
- Utility Unknown U/G Line
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc.
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

SUMMARY OF SOIL LABORATORY RESULTS - EPA METHODS 8260B AND 8270D BASE NEUTRAL
Parcel 102, Ward Holdings, LLC– Parking Lot
111 B W. 10th Street

Sample ID	Method →		EPA Method 8260B				EPA Method 8270D Base Neutral	
	Contaminant of Concern →		Acetone	Methylene chloride	Tetrachloroethene ("Perc")	All other EPA Method 8260B Parameters	Bis(2-Ethylhexyl)phthalate	All other EPA Method 8270D Base Neutral Parameters
	Date Collected	Location						
102DPT-01 (2-3ft)	7/16/12	@ CB1017	28.5 J	3.60 J	<0.637	BMDL	<18.5	BMDL
102DPT-01 (4-5ft)	7/16/12	@ CB1017	<1.31	3.69 J	<0.793	BMDL	<21.5	BMDL
102DPT-02 (2-3ft)	7/16/12	@ CB1023	19.6 J	1.69 J	<0.622	BMDL	<16.8	BMDL
102DPT-02 (3-4ft)	7/16/12	@ CB1023	20.0 J	3.27 J	<0.643	BMDL	40.9 J	BMDL
102DPT-03 (4-5ft)	7/16/12	@ CB 1020	<45.5	<8.00	**230**	BMDL	<18.3	BMDL
Preliminary Residential Health Based SRG (ug/kg)			12,000,000	56,000	17,000	Varies	35,000	Varies
Preliminary Industrial Health Based SRG (ug/kg)			100,000,000	620,000	82,000	Varies	120,000	Varies
Protection of Groundwater Preliminary SRG(ug/kg)			24,000	23	5	Varies	7,200	Varies
Residential MSCC (ug/kg)			14,000,000	85,000	1,100	Varies	46,000	Varies
Industrial/Commercial MSCC (ug/kg)			360,000,000	763,000	10,000	Varies	410,000	Varies
Soil-To-Groundwater MSCC (ug/kg)			24,000	20	7.4	Varies	6,600	Varies
NC "Contained-Out" Level for Unrestricted Use (ug/kg)			2,800	20	7.4	Varies	6,700	Varies

All results in micrograms per kilogram (ug/kg).
Sample depth below land surface provided in parenthesis as part of the sample identification.
BMDL = Below Method Detection Limit, refer to analytical report for a complete list of parameters and detection limits

SUMMARY OF GROUNDWATER LABORATORY RESULTS - EPA METHODS 8260B AND 8270D BASE NEUTRAL
Parcel 102, Ward Holdings, LLC– Parking Lot
111 B W. 10th Street

Sample ID	Method →		EPA Method 8260B								EPA Method 8270D BN
	Contaminant of Concern →		2-Butanone	4-Isopropyltoluene	Benzene	Carbon disulfide	Tetrachloroethene ("Perc")	Toluene	Trichloroethene (TCE)	All other EPA Method 8260B Parameters	All EPA Method 8270D Base Neutral (BN) Parameters
	Date Collected	Location									
102DPT-03	7/16/12	@ CB 1020	1.07 J	1.37	0.130 J	0.380 J	**35.8**	0.380 J	0.830 J	BMDL	BMDL
2L GWQS (ug/L)			4,000	25	1	700	0.7	600	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
J = Estimated Concentration
CB = Proposed Catch Basin
Bold results indicate concentrations above the NCAC T15A:02L Groundwater Quality Standards (2L GWQS).

PROJECT REFERENCE NO.	SHEET
35781.1.2 (U-3315)	2

GeoEnvironmental

0 20 40
FEET

LEGEND
ID. SOIL BORING/SAMPLE
ID. SOIL BORING/SAMPLE & GROUNDWATER SAMPLE
ID. "HOT" SAMPLE

103DPT-04
DPT-01
DPT-02
DPT-03
W. 10TH ST.
S. WASHINGTON ST.
STATE OF NORTH CAROLINA C/O STATE PROPERTY OFFICE
WARD HOLDINGS, LLC
111B W. 10TH ST.
102 SOIL
15+00
14+00

NOTES:
- BORING ID'S PREFACED WITH "102" UNLESS OTHERWISE NOTED
- DARK GRAYSCALE BORINGS ASSOCIATED WITH NEARBY PROJECTS
- AERIAL PHOTOGRAPHS OBTAINED FROM NCDOT
- PROPOSED DETAILS OBTAINED FROM NCDOT

APPENDICES

APPENDIX A
SCHNABEL GEOPHYSICAL REPORT

Schnabel
ENGINEERING

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: Stantonsburg Road/Tenth Street Connector from Memorial Drive (US 13) to Evans Street

Subject: **Project 11821014.17, Report on Geophysical Surveys**
Parcel 102, Ward Holdings LLC Property, 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 12 and 26, 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 south side of W 10th Street approximately 130 feet west of E Evans 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

schnabel-eng.com
T/ 336-274-9456 F/ 336-274-9486
11A Oak Branch Drive / Greensboro, NC / 27407

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 102 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 buried utilities or known site features (Figures 3 and 4). The GPR data indicate that the EM anomalies of unknown cause are probably caused by buried utilities and surface metal. 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.

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 102\SCHNABEL GEOPHYSICAL REPORT ON PARCEL 102 (U-3315).DOCX

Parcel 102 (Ward Holdings LLC Property), looking south

Parcel 102 (Ward Holdings LLC Property), looking east

Schnabel ENGINEERING

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

PARCEL 102
SITE PHOTOS

FIGURE 1

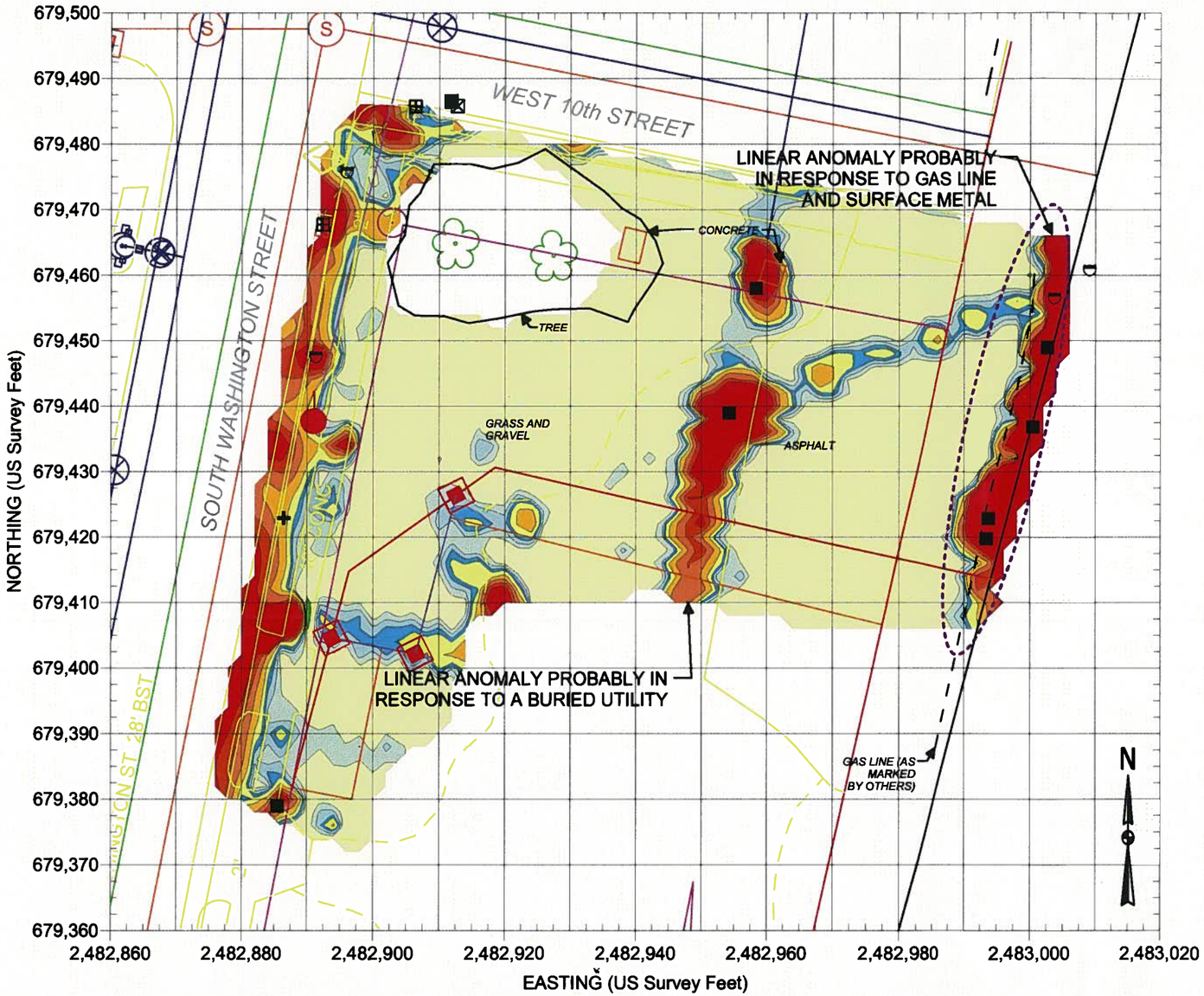
Geonics EM61-MK2 Metal Detector with Trimble DGPS Unit

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 102



EXPLANATION

- SIGN
- MISCELLANEOUS METALLIC OBJECT
- UTILITY MANHOLE, METER, BOX, ETC.
- STORMSEWER INLET
- GUY WIRE
- EDGE OF NCDOT PROPOSED R/W
- PROPERTY LINE
- GPR SURVEY AREA

REF.: NCDOT FILES: u3315_rdy_psh10.dgn & u3315_rdy_psh11.dgn (FOR SOME SITE FEATURES)

EM61 Early Time Gate Response (mV)

-15000 -100 0 50 100 150 200 300 500 750 1000 2000

Scale in US Survey Feet

0 20 40 60

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 12, 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 26, 2012, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

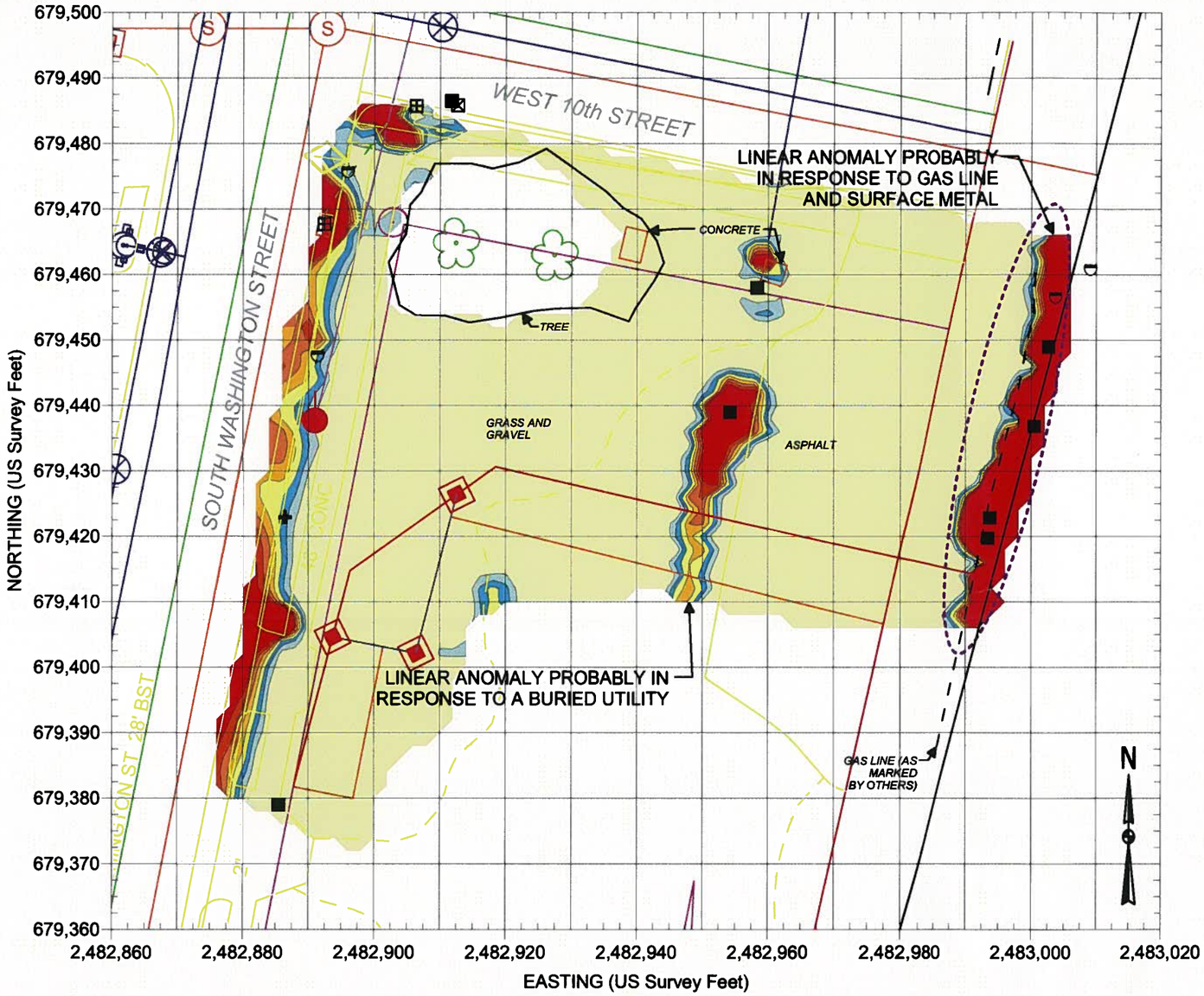
Schnabel ENGINEERING

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

EM61
EARLY TIME GATE
RESPONSE

FIGURE 3

PARCEL 102



EXPLANATION

- SIGN
- MISCELLANEOUS METALLIC OBJECT
- UTILITY MANHOLE, METER, BOX, ETC.
- STORMSEWER INLET
- GUY WIRE
- EDGE OF NCDOT PROPOSED R/W
- PROPERTY LINE
- GPR SURVEY AREA

REF.: NCDOT FILES: u3315_rdy_psh10.dgn & u3315_rdy_psh11.dgn (FOR SOME SITE FEATURES)

EM61 Differential Response (mV)

-20000 -100 0 40 60 80 100 120 140 160 200

Scale in US Survey Feet

0 20 40 60

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 12, 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 July 26, 2012, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

Schnabel ENGINEERING

STATE PROJECT U-3315
NC DEPARTMENT OF TRANSPORTATION
PITT COUNTY, NC
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 102 - Ward Holdings, LLC - Parking Lot		LOGGED BY: Ben Ashba	BORING ID: 102DPT-01
		DRILLER: William J. Miller	
NORTHING: 679,434.00	EASTING: 2,482,891.00	CREW: Corey Futral	
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: @ CB 1017		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: CPT / DPT	0 HOUR DTW: N/A	BORING DEPTH: 8.0
START DATE: 7/16/12	FINISH DATE: 7/16/12	24 HOUR DTW: N/A	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0			▲1		GW			Dark brown, GRAVEL w/Brick frags. Fill.	
2.0			▲3	DPT-01 (2-3')	CL/ CH		2.0	Brown, CLAY w/med. high plast. soft.	
3.0			▲3				3.0		
4.0			▲3	DPT-01 (4-5')	CH			CLAY. High plast. w/orange and gray mottling.	
5.0			▲3				5.5		
6.0			▲3		CL			Sandy CLAY. V.f. grained. Orange and brown mottling.	
8.0							8.0	Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 212077 GREENVILLE-PSAS U3315.GPJ CATLIN.GDT 9/12/12

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 102 - Ward Holdings, LLC - Parking Lot		LOGGED BY: Ben Ashba	BORING ID: 102DPT-02
		DRILLER: William J. Miller	
NORTHING: 679,385.00	EASTING: 2,482,878.00	CREW: Corey Futral	
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: @ CB 1023		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: CPT / DPT	0 HOUR DTW: N/A	BORING DEPTH: 8.0
START DATE: 7/16/12	FINISH DATE: 7/16/12	24 HOUR DTW: N/A	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION DEPTH	ELEVATION
							0.0 LAND SURFACE	
0.0					SM		TOPSOIL 0.5	
			▲1					
2.0					SC		Clayey, f. SAND. Gradational contact w/below.	
			▲2	DPT-02 (2-3')				
3.0							3.5	
			▲2	DPT-02 (3-4')				
4.0					CL		Sandy CLAY. Med. plast.	
			▲1				5.0	
6.0					CH		CLAY. High plast. Med. stiff. Orange and brown mottling. Tr. sandy clay @ base.	
			▲1					
8.0							8.0 Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

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 102 - Ward Holdings, LLC - Parking Lot		LOGGED BY: Ben Ashba	BORING ID: 102DPT-03
		DRILLER: William J. Miller	
NORTHING: 679,443.00	EASTING: 2,482,974.00	CREW: Corey Futral	
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: @ CB 1020		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: CPT / DPT	0 HOUR DTW: 6.9	BORING DEPTH: 12.0
START DATE: 7/16/12	FINISH DATE: 7/16/12	24 HOUR DTW: N/A	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0							0.2	ASPHALT	
					GW		0.5	Sandy GRAVEL. Fill	
			▲1		SM			Silty, v.f. to f. SAND.	
2.0							3.0		
			▲1		SC		3.5	Clayey SAND.	
					CL		4.0	Sandy CLAY.	
4.0									
			▲2	DPT-03 (4-5')					
5.0									
			▲2		CH			CLAY. High plast. Orange, brown, and gray mottling.	
6.0									
			▲2	▽			7.5		
					SC/ CL		8.0	Sandy CLAY to Clayey SAND.	
8.0								NO SAMPLES	

▽ = 0hr. DTW ▼ = 24hr. DTW

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 102 - Ward Holdings, LLC - Parking Lot		LOGGED BY: Ben Ashba		BORING ID: 102DPT-03	
		DRILLER: William J. Miller			
NORTHING: 679,443.00	EASTING: 2,482,974.00	CREW: Corey Futral			
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION: @ CB 1020			LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: CPT / DPT		0 HOUR DTW: 6.9	BORING DEPTH: 12.0	
START DATE: 7/16/12	FINISH DATE: 7/16/12		24 HOUR DTW: N/A	ROCK DEPTH: --	

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	PID RESULTS (ppm) 0 250 500 750 1,000	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION DEPTH	ELEVATION
							NO SAMPLES *(continued)*	
12.0							12.0 Boring Terminated at Depth 12.0 ft	

▽ = 0hr. DTW ▼ = 24hr. DTW

CATLIN ENVIRO LOG 212077_GREENVILLE-PSAS_U3315.GPJ_CATLIN.GDT 9/12/12

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: **31202264**

Client Project: **NCDOT Parcel 102**

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
2012.07.26 15:57:54 -05'00'

Barbara A. Hager — Date
Project Manager
barbara.hager@sgs.com

Print Date: 07/26/2012

N.C. Certification # 481

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

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
102 DPT-01 (2-3ft)	31202264001	07/16/2012 15:30	07/18/2012 16:30	Soil-Solid as dry weight
102 DPT-01 (4-5ft)	31202264002	07/16/2012 15:40	07/18/2012 16:30	Soil-Solid as dry weight
102 DPT-02 (2-3ft)	31202264003	07/16/2012 16:20	07/18/2012 16:30	Soil-Solid as dry weight
102 DPT-02 (3-4ft)	31202264004	07/16/2012 16:30	07/18/2012 16:30	Soil-Solid as dry weight
102 DPT-03 (4-5ft)	31202264005	07/16/2012 17:00	07/18/2012 16:30	Soil-Solid as dry weight
102 DPT-03	31202264006	07/16/2012 18:00	07/18/2012 16:30	Water
Trip Blank (Not on COC) Water	31202264007	07/16/2012 00:00	07/18/2012 16:30	Water
Trip Blank (Not on COC) Soil	31202264008	07/16/2012 00:00	07/18/2012 16:30	Soil-Solid as dry weight

Case Narrative

102 DPT-01 (2-3ft)
8260 - The batch Duplicate was not analyzed due to a leaking vial cap.

102 DPT-01 (4-5ft)
8260 - The batch Duplicate was not analyzed due to a leaking vial cap.

102 DPT-02 (2-3ft)
8260 - The batch Duplicate was not analyzed due to a leaking vial cap.

102 DPT-02 (3-4ft)
8260 - The batch Duplicate was not analyzed due to a leaking vial cap.

102 DPT-03
8260 - A batch MS/MSD was not reported with batch VMS2401 as the parent sample required a different dilution profile.
J - The quantitation is an estimation.

102 DPT-03 (4-5ft)
8260 - The batch Duplicate was not analyzed due to a leaking vial cap.

LCS for HBN 25955 [VXX/3684]
8260 - A batch MS/MSD was not reported with batch VMS2401 as the parent sample required a different dilution profile.

LCSD for HBN 25955 [VXX/3684]
8260 - A batch MS/MSD was not reported with batch VMS2401 as the parent sample required a different dilution profile.

LCSD-S for HBN 25851 [VXX/3672
8260 - The batch Duplicate was not analyzed due to a leaking vial cap.

LCS-S for HBN 25851 [VXX/3672]
8260 - The batch Duplicate was not analyzed due to a leaking vial cap.

MB for HBN 25955 [VXX/3684]
8260 - A batch MS/MSD was not reported with batch VMS2401 as the parent sample required a different dilution profile.

MB-S for HBN 25851 [VXX/3672]
8260 - The batch Duplicate was not analyzed due to a leaking vial cap.

Trip Blank (Not on COC) Soil
8260 - The batch Duplicate was not analyzed due to a leaking vial cap.
8260 - This Trip Blank has a reported 'J' flagged concentration for Methylene Chloride.

Trip Blank (Not on COC) Water
8260 - A batch MS/MSD was not reported with batch VMS2401 as the parent sample required a different dilution profile.

UST-1 C(81140MS)
8260 - The batch Duplicate was not analyzed due to a leaking vial cap.

Detectable Results Summary

Client Sample ID: **102 DPT-01 (2-3ft)**				
Lab Sample ID: 31202264001-A	Parameter	Result	Units	
SW-846 8260B	Acetone	28.5	ug/Kg	J
	Methylene chloride	3.60	ug/Kg	J
Client Sample ID: **102 DPT-01 (4-5ft)**				
Lab Sample ID: 31202264002-A	Parameter	Result	Units	
SW-846 8260B	Methylene chloride	3.69	ug/Kg	J
Client Sample ID: **102 DPT-02 (2-3ft)**				
Lab Sample ID: 31202264003-A	Parameter	Result	Units	
SW-846 8260B	Acetone	19.6	ug/Kg	J
	Methylene chloride	1.69	ug/Kg	J
Client Sample ID: **102 DPT-02 (3-4ft)**				
Lab Sample ID: 31202264004-A	Parameter	Result	Units	
SW-846 8260B	Acetone	20.0	ug/Kg	J
	Methylene chloride	3.27	ug/Kg	J
SW-846 8270D	Bis(2-Ethylhexyl)phthalate	40.9	ug/Kg	J
Client Sample ID: **102 DPT-03 (4-5ft)**				
Lab Sample ID: 31202264005-D	Parameter	Result	Units	
SW-846 8260B	Tetrachloroethene	230	ug/Kg	
Client Sample ID: **102 DPT-03**				
Lab Sample ID: 31202264006-A	Parameter	Result	Units	
SW-846 8260B	2-Butanone	1.07	ug/L	J
	4-Isopropyltoluene	1.37	ug/L	
	Benzene	0.130	ug/L	J
	Carbon disulfide	0.380	ug/L	J
	Tetrachloroethene	35.8	ug/L	
	Toluene	0.380	ug/L	J
	Trichloroethene	0.830	ug/L	J
Client Sample ID: **Trip Blank (Not on COC) Water**				
Lab Sample ID: 31202264007-A	Parameter	Result	Units	
SW-846 8260B	Methylene chloride	0.470	ug/L	J
Client Sample ID: **Trip Blank (Not on COC) Soil**				
Lab Sample ID: 31202264008-A	Parameter	Result	Units	
SW-846 8260B	Methylene chloride	3.99	ug/Kg	J

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-01 (2-3ft)

Client Sample ID: **102 DPT-01 (2-3ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264001-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 15:30
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 81.70

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.898	4.24	ug/Kg	1	07/20/2012 14:57
1,1,1-Trichloroethane	ND	U	0.659	4.24	ug/Kg	1	07/20/2012 14:57
1,1,2,2-Tetrachloroethane	ND	U	0.957	4.24	ug/Kg	1	07/20/2012 14:57
1,1,2-Trichloroethane	ND	U	0.881	4.24	ug/Kg	1	07/20/2012 14:57
1,1-Dichloroethane	ND	U	0.731	4.24	ug/Kg	1	07/20/2012 14:57
1,1-Dichloroethene	ND	U	0.765	4.24	ug/Kg	1	07/20/2012 14:57
1,1-Dichloropropene	ND	U	0.781	4.24	ug/Kg	1	07/20/2012 14:57
1,2,3-Trichlorobenzene	ND	U	1.18	4.24	ug/Kg	1	07/20/2012 14:57
1,2,3-Trichloropropane	ND	U	0.940	4.24	ug/Kg	1	07/20/2012 14:57
1,2,4-Trichlorobenzene	ND	U	1.01	4.24	ug/Kg	1	07/20/2012 14:57
1,2,4-Trimethylbenzene	ND	U	0.907	4.24	ug/Kg	1	07/20/2012 14:57
1,2-Dibromo-3-chloropropane	ND	U	4.92	25.4	ug/Kg	1	07/20/2012 14:57
1,2-Dibromoethane	ND	U	0.642	4.24	ug/Kg	1	07/20/2012 14:57
1,2-Dichlorobenzene	ND	U	1.09	4.24	ug/Kg	1	07/20/2012 14:57
1,2-Dichloroethane	ND	U	0.751	4.24	ug/Kg	1	07/20/2012 14:57
1,2-Dichloropropane	ND	U	0.682	4.24	ug/Kg	1	07/20/2012 14:57
1,3,5-Trimethylbenzene	ND	U	0.834	4.24	ug/Kg	1	07/20/2012 14:57
1,3-Dichlorobenzene	ND	U	0.983	4.24	ug/Kg	1	07/20/2012 14:57
1,3-Dichloropropane	ND	U	0.683	4.24	ug/Kg	1	07/20/2012 14:57
1,4-Dichlorobenzene	ND	U	0.932	4.24	ug/Kg	1	07/20/2012 14:57
2,2-Dichloropropane	ND	U	0.707	4.24	ug/Kg	1	07/20/2012 14:57
2-Butanone	ND	U	1.32	21.2	ug/Kg	1	07/20/2012 14:57
2-Chlorotoluene	ND	U	0.949	4.24	ug/Kg	1	07/20/2012 14:57
2-Hexanone	ND	U	1.65	10.6	ug/Kg	1	07/20/2012 14:57
4-Chlorotoluene	ND	U	0.940	4.24	ug/Kg	1	07/20/2012 14:57
4-Isopropyltoluene	ND	U	0.881	4.24	ug/Kg	1	07/20/2012 14:57
4-Methyl-2-pentanone	ND	U	2.72	10.6	ug/Kg	1	07/20/2012 14:57
Acetone	**28.5**	J	1.05	42.4	ug/Kg	1	07/20/2012 14:57
Benzene	ND	U	0.757	4.24	ug/Kg	1	07/20/2012 14:57
Bromobenzene	ND	U	0.835	4.24	ug/Kg	1	07/20/2012 14:57
Bromochloromethane	ND	U	0.740	4.24	ug/Kg	1	07/20/2012 14:57
Bromodichloromethane	ND	U	0.689	4.24	ug/Kg	1	07/20/2012 14:57
Bromoform	ND	U	0.567	4.24	ug/Kg	1	07/20/2012 14:57
Bromomethane	ND	U	1.49	4.24	ug/Kg	1	07/20/2012 14:57
n-Butylbenzene	ND	U	0.915	4.24	ug/Kg	1	07/20/2012 14:57
Carbon disulfide	ND	U	0.732	4.24	ug/Kg	1	07/20/2012 14:57
Carbon tetrachloride	ND	U	0.737	4.24	ug/Kg	1	07/20/2012 14:57
Chlorobenzene	ND	U	0.656	4.24	ug/Kg	1	07/20/2012 14:57
Chloroethane	ND	U	0.390	4.24	ug/Kg	1	07/20/2012 14:57
Chloroform	ND	U	0.688	4.24	ug/Kg	1	07/20/2012 14:57
Chloromethane	ND	U	0.614	4.24	ug/Kg	1	07/20/2012 14:57
Dibromochloromethane	ND	U	0.718	4.24	ug/Kg	1	07/20/2012 14:57
Dibromomethane	ND	U	0.688	4.24	ug/Kg	1	07/20/2012 14:57
Dichlorodifluoromethane	ND	U	0.616	4.24	ug/Kg	1	07/20/2012 14:57

Print Date: 07/26/2012

N.C. Certification # 481

Results of 102 DPT-01 (2-3ft)

Client Sample ID: **102 DPT-01 (2-3ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264001-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 15:30
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 81.70

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	U	0.730	4.24	ug/Kg	1	07/20/2012 14:57
trans-1,3-Dichloropropene	ND	U	0.759	4.24	ug/Kg	1	07/20/2012 14:57
Diisopropyl Ether	ND	U	0.761	4.24	ug/Kg	1	07/20/2012 14:57
Ethyl Benzene	ND	U	0.701	4.24	ug/Kg	1	07/20/2012 14:57
Hexachlorobutadiene	ND	U	1.16	4.24	ug/Kg	1	07/20/2012 14:57
Isopropylbenzene (Cumene)	ND	U	0.816	4.24	ug/Kg	1	07/20/2012 14:57
Methyl iodide	ND	U	0.717	4.24	ug/Kg	1	07/20/2012 14:57
Methylene chloride	**3.60**	J	0.591	16.9	ug/Kg	1	07/20/2012 14:57
Naphthalene	ND	U	1.03	4.24	ug/Kg	1	07/20/2012 14:57
Styrene	ND	U	0.835	4.24	ug/Kg	1	07/20/2012 14:57
Tetrachloroethene	ND	U	0.637	4.24	ug/Kg	1	07/20/2012 14:57
Toluene	ND	U	0.686	4.24	ug/Kg	1	07/20/2012 14:57
Trichloroethene	ND	U	0.709	4.24	ug/Kg	1	07/20/2012 14:57
Trichlorofluoromethane	ND	U	0.639	4.24	ug/Kg	1	07/20/2012 14:57
Vinyl chloride	ND	U	0.624	4.24	ug/Kg	1	07/20/2012 14:57
Xylene (total)	ND	U	1.50	8.47	ug/Kg	1	07/20/2012 14:57
cis-1,2-Dichloroethene	ND	U	0.657	4.24	ug/Kg	1	07/20/2012 14:57
m,p-Xylene	ND	U	1.50	8.47	ug/Kg	1	07/20/2012 14:57
n-Propylbenzene	ND	U	0.826	4.24	ug/Kg	1	07/20/2012 14:57
o-Xylene	ND	U	0.856	4.24	ug/Kg	1	07/20/2012 14:57
sec-Butylbenzene	ND	U	0.881	4.24	ug/Kg	1	07/20/2012 14:57
tert-Butyl methyl ether (MTBE)	ND	U	0.722	4.24	ug/Kg	1	07/20/2012 14:57
tert-Butylbenzene	ND	U	0.768	4.24	ug/Kg	1	07/20/2012 14:57
trans-1,2-Dichloroethene	ND	U	0.730	4.24	ug/Kg	1	07/20/2012 14:57
trans-1,4-Dichloro-2-butene	ND	U	4.58	21.2	ug/Kg	1	07/20/2012 14:57
Surrogates							
1,2-Dichloroethane-d4	118			55.0-173	%	1	07/20/2012 14:57
4-Bromofluorobenzene	102			23.0-141	%	1	07/20/2012 14:57
Toluene d8	102			57.0-134	%	1	07/20/2012 14:57

Batch Information

Analytical Batch: **VMS2395**
Analytical Method: **SW-846 8260B**
Instrument: **MSD9**
Analyst: **DVO**
Analytical Date/Time: **07/20/2012 14:57**

Prep Batch: **VXX3672**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **07/19/2012 13:26**
Prep Initial Wt./Vol.: **7.22 g**
Prep Extract Vol: **5 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-01 (2-3ft)

Client Sample ID: **102 DPT-01 (2-3ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264001-E
Lab Project ID: 31202264

Collection Date: 07/16/2012 15:30
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 81.70

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	34.0	385	ug/Kg	1	07/20/2012 14:38
1,2-Dichlorobenzene	ND	U	19.2	385	ug/Kg	1	07/20/2012 14:38
1,3-Dichlorobenzene	ND	U	26.0	385	ug/Kg	1	07/20/2012 14:38
1,4-Dichlorobenzene	ND	U	27.2	385	ug/Kg	1	07/20/2012 14:38
2,4,5-Trichlorophenol	ND	U	25.7	385	ug/Kg	1	07/20/2012 14:38
2,4,6-Trichlorophenol	ND	U	26.1	385	ug/Kg	1	07/20/2012 14:38
2,4-Dichlorophenol	ND	U	22.3	385	ug/Kg	1	07/20/2012 14:38
2,4-Dinitrophenol	ND	U	35.7	770	ug/Kg	1	07/20/2012 14:38
2,4-Dinitrotoluene	ND	U	19.5	385	ug/Kg	1	07/20/2012 14:38
2,6-Dinitrotoluene	ND	U	27.6	385	ug/Kg	1	07/20/2012 14:38
2-Chloronaphthalene	ND	U	22.7	385	ug/Kg	1	07/20/2012 14:38
2-Chlorophenol	ND	U	20.4	385	ug/Kg	1	07/20/2012 14:38
2-Methylnaphthalene	ND	U	31.2	385	ug/Kg	1	07/20/2012 14:38
2-Methylphenol	ND	U	21.3	385	ug/Kg	1	07/20/2012 14:38
2-Nitroaniline	ND	U	25.4	385	ug/Kg	1	07/20/2012 14:38
2-Nitrophenol	ND	U	18.5	385	ug/Kg	1	07/20/2012 14:38
3 and/or 4-Methylphenol	ND	U	25.0	385	ug/Kg	1	07/20/2012 14:38
3,3'-Dichlorobenzidine	ND	U	18.5	385	ug/Kg	1	07/20/2012 14:38
3-Nitroaniline	ND	U	17.4	385	ug/Kg	1	07/20/2012 14:38
4,6-Dinitro-2-methylphenol	ND	U	18.1	385	ug/Kg	1	07/20/2012 14:38
4-Chloro-3-methylphenol	ND	U	19.2	385	ug/Kg	1	07/20/2012 14:38
4-Chloroaniline	ND	U	30.8	385	ug/Kg	1	07/20/2012 14:38
4-Chlorophenyl phenyl ether	ND	U	41.1	385	ug/Kg	1	07/20/2012 14:38
Acenaphthene	ND	U	17.5	385	ug/Kg	1	07/20/2012 14:38
Acenaphthylene	ND	U	16.3	385	ug/Kg	1	07/20/2012 14:38
Anthracene	ND	U	17.1	385	ug/Kg	1	07/20/2012 14:38
Benzo(a)anthracene	ND	U	21.2	385	ug/Kg	1	07/20/2012 14:38
Benzo(a)pyrene	ND	U	21.8	385	ug/Kg	1	07/20/2012 14:38
Benzo(b)fluoranthene	ND	U	22.2	385	ug/Kg	1	07/20/2012 14:38
Benzo(g,h,i)perylene	ND	U	61.3	385	ug/Kg	1	07/20/2012 14:38
Benzo(k)fluoranthene	ND	U	46.2	385	ug/Kg	1	07/20/2012 14:38
Benzoic acid	ND	U	8.55	385	ug/Kg	1	07/20/2012 14:38
Bis(2-Chloroethoxy)methane	ND	U	17.4	385	ug/Kg	1	07/20/2012 14:38
Bis(2-Chloroethyl)ether	ND	U	36.0	385	ug/Kg	1	07/20/2012 14:38
Bis(2-Chloroisopropyl)ether	ND	U	33.6	385	ug/Kg	1	07/20/2012 14:38
Bis(2-Ethylhexyl)phthalate	ND	U	18.5	385	ug/Kg	1	07/20/2012 14:38
4-Bromophenyl phenyl ether	ND	U	25.4	385	ug/Kg	1	07/20/2012 14:38
Butyl benzyl phthalate	ND	U	33.5	385	ug/Kg	1	07/20/2012 14:38
Chrysene	ND	U	44.8	385	ug/Kg	1	07/20/2012 14:38
Di-n-butyl phthalate	ND	U	18.2	385	ug/Kg	1	07/20/2012 14:38
Di-n-octyl phthalate	ND	U	21.3	385	ug/Kg	1	07/20/2012 14:38
Dibenz(a,h)anthracene	ND	U	17.4	385	ug/Kg	1	07/20/2012 14:38
Dibenzofuran	ND	U	30.2	385	ug/Kg	1	07/20/2012 14:38
Diethyl phthalate	ND	U	20.8	385	ug/Kg	1	07/20/2012 14:38

Print Date: 07/26/2012

N.C. Certification # 481

Results of 102 DPT-01 (2-3ft)

Client Sample ID: **102 DPT-01 (2-3ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264001-E
Lab Project ID: 31202264

Collection Date: 07/16/2012 15:30
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 81.70

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND	U	29.6	385	ug/Kg	1	07/20/2012 14:38
2,4-Dimethylphenol	ND	U	28.2	385	ug/Kg	1	07/20/2012 14:38
Diphenylamine	ND	U	17.4	385	ug/Kg	1	07/20/2012 14:38
Fluoranthene	ND	U	36.2	385	ug/Kg	1	07/20/2012 14:38
Fluorene	ND	U	20.4	385	ug/Kg	1	07/20/2012 14:38
Hexachlorobenzene	ND	U	36.5	385	ug/Kg	1	07/20/2012 14:38
Hexachlorobutadiene	ND	U	23.0	385	ug/Kg	1	07/20/2012 14:38
Hexachlorocyclopentadiene	ND	U	117	385	ug/Kg	1	07/20/2012 14:38
Hexachloroethane	ND	U	22.2	385	ug/Kg	1	07/20/2012 14:38
Indeno(1,2,3-cd)pyrene	ND	U	30.0	385	ug/Kg	1	07/20/2012 14:38
Isophorone	ND	U	17.5	385	ug/Kg	1	07/20/2012 14:38
Naphthalene	ND	U	33.3	385	ug/Kg	1	07/20/2012 14:38
4-Nitroaniline	ND	U	22.2	385	ug/Kg	1	07/20/2012 14:38
Nitrobenzene	ND	U	22.2	385	ug/Kg	1	07/20/2012 14:38
4-Nitrophenol	ND	U	37.9	385	ug/Kg	1	07/20/2012 14:38
Pentachlorophenol	ND	U	30.8	385	ug/Kg	1	07/20/2012 14:38
Phenanthrene	ND	U	25.4	385	ug/Kg	1	07/20/2012 14:38
Phenol	ND	U	36.0	385	ug/Kg	1	07/20/2012 14:38
Pyrene	ND	U	16.3	385	ug/Kg	1	07/20/2012 14:38
n-Nitrosodi-n-propylamine	ND	U	110	385	ug/Kg	1	07/20/2012 14:38
Surrogates							
2,4,6-Tribromophenol	95.0			41.0-129	%	1	07/20/2012 14:38
2-Fluorobiphenyl	86.0			48.0-123	%	1	07/20/2012 14:38
2-Fluorophenol	80.0			42.0-123	%	1	07/20/2012 14:38
Nitrobenzene-d5	87.0			46.0-117	%	1	07/20/2012 14:38
Phenol-d6	93.0			48.0-125	%	1	07/20/2012 14:38
Terphenyl-d14	94.0			44.0-140	%	1	07/20/2012 14:38

Batch Information

Analytical Batch: **XMS1606**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **07/20/2012 14:38**

Prep Batch: **XXX2835**
Prep Method: **SW-846 3541**
Prep Date/Time: **07/19/2012 10:33**
Prep Initial Wt./Vol.: **31.79 g**
Prep Extract Vol: **10 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-01 (4-5ft)

Client Sample ID: **102 DPT-01 (4-5ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264002-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 15:40
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 72.90

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	1.12	5.27	ug/Kg	1	07/20/2012 15:24
1,1,1-Trichloroethane	ND	U	0.820	5.27	ug/Kg	1	07/20/2012 15:24
1,1,2,2-Tetrachloroethane	ND	U	1.19	5.27	ug/Kg	1	07/20/2012 15:24
1,1,2-Trichloroethane	ND	U	1.10	5.27	ug/Kg	1	07/20/2012 15:24
1,1-Dichloroethane	ND	U	0.910	5.27	ug/Kg	1	07/20/2012 15:24
1,1-Dichloroethene	ND	U	0.952	5.27	ug/Kg	1	07/20/2012 15:24
1,1-Dichloropropene	ND	U	0.972	5.27	ug/Kg	1	07/20/2012 15:24
1,2,3-Trichlorobenzene	ND	U	1.47	5.27	ug/Kg	1	07/20/2012 15:24
1,2,3-Trichloropropane	ND	U	1.17	5.27	ug/Kg	1	07/20/2012 15:24
1,2,4-Trichlorobenzene	ND	U	1.25	5.27	ug/Kg	1	07/20/2012 15:24
1,2,4-Trimethylbenzene	ND	U	1.13	5.27	ug/Kg	1	07/20/2012 15:24
1,2-Dibromo-3-chloropropane	ND	U	6.12	31.6	ug/Kg	1	07/20/2012 15:24
1,2-Dibromoethane	ND	U	0.799	5.27	ug/Kg	1	07/20/2012 15:24
1,2-Dichlorobenzene	ND	U	1.36	5.27	ug/Kg	1	07/20/2012 15:24
1,2-Dichloroethane	ND	U	0.934	5.27	ug/Kg	1	07/20/2012 15:24
1,2-Dichloropropane	ND	U	0.849	5.27	ug/Kg	1	07/20/2012 15:24
1,3,5-Trimethylbenzene	ND	U	1.04	5.27	ug/Kg	1	07/20/2012 15:24
1,3-Dichlorobenzene	ND	U	1.22	5.27	ug/Kg	1	07/20/2012 15:24
1,3-Dichloropropane	ND	U	0.850	5.27	ug/Kg	1	07/20/2012 15:24
1,4-Dichlorobenzene	ND	U	1.16	5.27	ug/Kg	1	07/20/2012 15:24
2,2-Dichloropropane	ND	U	0.879	5.27	ug/Kg	1	07/20/2012 15:24
2-Butanone	ND	U	1.64	26.4	ug/Kg	1	07/20/2012 15:24
2-Chlorotoluene	ND	U	1.18	5.27	ug/Kg	1	07/20/2012 15:24
2-Hexanone	ND	U	2.06	13.2	ug/Kg	1	07/20/2012 15:24
4-Chlorotoluene	ND	U	1.17	5.27	ug/Kg	1	07/20/2012 15:24
4-Isopropyltoluene	ND	U	1.10	5.27	ug/Kg	1	07/20/2012 15:24
4-Methyl-2-pentanone	ND	U	3.38	13.2	ug/Kg	1	07/20/2012 15:24
Acetone	ND	U	1.31	52.7	ug/Kg	1	07/20/2012 15:24
Benzene	ND	U	0.941	5.27	ug/Kg	1	07/20/2012 15:24
Bromobenzene	ND	U	1.04	5.27	ug/Kg	1	07/20/2012 15:24
Bromochloromethane	ND	U	0.920	5.27	ug/Kg	1	07/20/2012 15:24
Bromodichloromethane	ND	U	0.857	5.27	ug/Kg	1	07/20/2012 15:24
Bromoform	ND	U	0.705	5.27	ug/Kg	1	07/20/2012 15:24
Bromomethane	ND	U	1.86	5.27	ug/Kg	1	07/20/2012 15:24
n-Butylbenzene	ND	U	1.14	5.27	ug/Kg	1	07/20/2012 15:24
Carbon disulfide	ND	U	0.911	5.27	ug/Kg	1	07/20/2012 15:24
Carbon tetrachloride	ND	U	0.917	5.27	ug/Kg	1	07/20/2012 15:24
Chlorobenzene	ND	U	0.816	5.27	ug/Kg	1	07/20/2012 15:24
Chloroethane	ND	U	0.485	5.27	ug/Kg	1	07/20/2012 15:24
Chloroform	ND	U	0.856	5.27	ug/Kg	1	07/20/2012 15:24
Chloromethane	ND	U	0.764	5.27	ug/Kg	1	07/20/2012 15:24
Dibromochloromethane	ND	U	0.893	5.27	ug/Kg	1	07/20/2012 15:24
Dibromomethane	ND	U	0.856	5.27	ug/Kg	1	07/20/2012 15:24
Dichlorodifluoromethane	ND	U	0.766	5.27	ug/Kg	1	07/20/2012 15:24

Print Date: 07/26/2012

N.C. Certification # 481

Results of 102 DPT-01 (4-5ft)

Client Sample ID: **102 DPT-01 (4-5ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264002-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 15:40
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 72.90

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	U	0.908	5.27	ug/Kg	1	07/20/2012 15:24
trans-1,3-Dichloropropene	ND	U	0.944	5.27	ug/Kg	1	07/20/2012 15:24
Diisopropyl Ether	ND	U	0.947	5.27	ug/Kg	1	07/20/2012 15:24
Ethyl Benzene	ND	U	0.872	5.27	ug/Kg	1	07/20/2012 15:24
Hexachlorobutadiene	ND	U	1.44	5.27	ug/Kg	1	07/20/2012 15:24
Isopropylbenzene (Cumene)	ND	U	1.02	5.27	ug/Kg	1	07/20/2012 15:24
Methyl iodide	ND	U	0.892	5.27	ug/Kg	1	07/20/2012 15:24
Methylene chloride	**3.69**	J	0.736	21.1	ug/Kg	1	07/20/2012 15:24
Naphthalene	ND	U	1.28	5.27	ug/Kg	1	07/20/2012 15:24
Styrene	ND	U	1.04	5.27	ug/Kg	1	07/20/2012 15:24
Tetrachloroethene	ND	U	0.793	5.27	ug/Kg	1	07/20/2012 15:24
Toluene	ND	U	0.854	5.27	ug/Kg	1	07/20/2012 15:24
Trichloroethene	ND	U	0.882	5.27	ug/Kg	1	07/20/2012 15:24
Trichlorofluoromethane	ND	U	0.795	5.27	ug/Kg	1	07/20/2012 15:24
Vinyl chloride	ND	U	0.776	5.27	ug/Kg	1	07/20/2012 15:24
Xylene (total)	ND	U	1.87	10.5	ug/Kg	1	07/20/2012 15:24
cis-1,2-Dichloroethene	ND	U	0.817	5.27	ug/Kg	1	07/20/2012 15:24
m,p-Xylene	ND	U	1.87	10.5	ug/Kg	1	07/20/2012 15:24
n-Propylbenzene	ND	U	1.03	5.27	ug/Kg	1	07/20/2012 15:24
o-Xylene	ND	U	1.06	5.27	ug/Kg	1	07/20/2012 15:24
sec-Butylbenzene	ND	U	1.10	5.27	ug/Kg	1	07/20/2012 15:24
tert-Butyl methyl ether (MTBE)	ND	U	0.898	5.27	ug/Kg	1	07/20/2012 15:24
tert-Butylbenzene	ND	U	0.955	5.27	ug/Kg	1	07/20/2012 15:24
trans-1,2-Dichloroethene	ND	U	0.908	5.27	ug/Kg	1	07/20/2012 15:24
trans-1,4-Dichloro-2-butene	ND	U	5.70	26.4	ug/Kg	1	07/20/2012 15:24
Surrogates							
1,2-Dichloroethane-d4	117			55.0-173	%	1	07/20/2012 15:24
4-Bromofluorobenzene	103			23.0-141	%	1	07/20/2012 15:24
Toluene d8	102			57.0-134	%	1	07/20/2012 15:24

Batch Information

Analytical Batch: **VMS2395**
Analytical Method: **SW-846 8260B**
Instrument: **MSD9**
Analyst: **DVO**
Analytical Date/Time: **07/20/2012 15:24**

Prep Batch: **VXX3672**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **07/19/2012 13:27**
Prep Initial Wt./Vol.: **6.51 g**
Prep Extract Vol: **5 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-01 (4-5ft)

Client Sample ID: **102 DPT-01 (4-5ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264002-E
Lab Project ID: 31202264

Collection Date: 07/16/2012 15:40
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 72.90

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	39.6	449	ug/Kg	1	07/20/2012 15:01
1,2-Dichlorobenzene	ND	U	22.4	449	ug/Kg	1	07/20/2012 15:01
1,3-Dichlorobenzene	ND	U	30.3	449	ug/Kg	1	07/20/2012 15:01
1,4-Dichlorobenzene	ND	U	31.7	449	ug/Kg	1	07/20/2012 15:01
2,4,5-Trichlorophenol	ND	U	30.0	449	ug/Kg	1	07/20/2012 15:01
2,4,6-Trichlorophenol	ND	U	30.4	449	ug/Kg	1	07/20/2012 15:01
2,4-Dichlorophenol	ND	U	26.0	449	ug/Kg	1	07/20/2012 15:01
2,4-Dinitrophenol	ND	U	41.6	897	ug/Kg	1	07/20/2012 15:01
2,4-Dinitrotoluene	ND	U	22.7	449	ug/Kg	1	07/20/2012 15:01
2,6-Dinitrotoluene	ND	U	32.1	449	ug/Kg	1	07/20/2012 15:01
2-Chloronaphthalene	ND	U	26.4	449	ug/Kg	1	07/20/2012 15:01
2-Chlorophenol	ND	U	23.8	449	ug/Kg	1	07/20/2012 15:01
2-Methylnaphthalene	ND	U	36.3	449	ug/Kg	1	07/20/2012 15:01
2-Methylphenol	ND	U	24.8	449	ug/Kg	1	07/20/2012 15:01
2-Nitroaniline	ND	U	29.6	449	ug/Kg	1	07/20/2012 15:01
2-Nitrophenol	ND	U	21.5	449	ug/Kg	1	07/20/2012 15:01
3 and/or 4-Methylphenol	ND	U	29.1	449	ug/Kg	1	07/20/2012 15:01
3,3'-Dichlorobenzidine	ND	U	21.5	449	ug/Kg	1	07/20/2012 15:01
3-Nitroaniline	ND	U	20.2	449	ug/Kg	1	07/20/2012 15:01
4,6-Dinitro-2-methylphenol	ND	U	21.1	449	ug/Kg	1	07/20/2012 15:01
4-Chloro-3-methylphenol	ND	U	22.4	449	ug/Kg	1	07/20/2012 15:01
4-Chloroaniline	ND	U	35.9	449	ug/Kg	1	07/20/2012 15:01
4-Chlorophenyl phenyl ether	ND	U	47.9	449	ug/Kg	1	07/20/2012 15:01
Acenaphthene	ND	U	20.4	449	ug/Kg	1	07/20/2012 15:01
Acenaphthylene	ND	U	18.9	449	ug/Kg	1	07/20/2012 15:01
Anthracene	ND	U	19.9	449	ug/Kg	1	07/20/2012 15:01
Benzo(a)anthracene	ND	U	24.7	449	ug/Kg	1	07/20/2012 15:01
Benzo(a)pyrene	ND	U	25.4	449	ug/Kg	1	07/20/2012 15:01
Benzo(b)fluoranthene	ND	U	25.8	449	ug/Kg	1	07/20/2012 15:01
Benzo(g,h,i)perylene	ND	U	71.5	449	ug/Kg	1	07/20/2012 15:01
Benzo(k)fluoranthene	ND	U	53.8	449	ug/Kg	1	07/20/2012 15:01
Benzoic acid	ND	U	9.96	449	ug/Kg	1	07/20/2012 15:01
Bis(2-Chloroethoxy)methane	ND	U	20.2	449	ug/Kg	1	07/20/2012 15:01
Bis(2-Chloroethyl)ether	ND	U	41.9	449	ug/Kg	1	07/20/2012 15:01
Bis(2-Chloroisopropyl)ether	ND	U	39.2	449	ug/Kg	1	07/20/2012 15:01
Bis(2-Ethylhexyl)phthalate	ND	U	21.5	449	ug/Kg	1	07/20/2012 15:01
4-Bromophenyl phenyl ether	ND	U	29.6	449	ug/Kg	1	07/20/2012 15:01
Butyl benzyl phthalate	ND	U	39.0	449	ug/Kg	1	07/20/2012 15:01
Chrysene	ND	U	52.2	449	ug/Kg	1	07/20/2012 15:01
Di-n-butyl phthalate	ND	U	21.2	449	ug/Kg	1	07/20/2012 15:01
Di-n-octyl phthalate	ND	U	24.8	449	ug/Kg	1	07/20/2012 15:01
Dibenz(a,h)anthracene	ND	U	20.2	449	ug/Kg	1	07/20/2012 15:01
Dibenzofuran	ND	U	35.2	449	ug/Kg	1	07/20/2012 15:01
Diethyl phthalate	ND	U	24.2	449	ug/Kg	1	07/20/2012 15:01

Print Date: 07/26/2012

N.C. Certification # 481

Results of 102 DPT-01 (4-5ft)

Client Sample ID: **102 DPT-01 (4-5ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264002-E
Lab Project ID: 31202264

Collection Date: 07/16/2012 15:40
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 72.90

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND	U	34.4	449	ug/Kg	1	07/20/2012 15:01
2,4-Dimethylphenol	ND	U	32.9	449	ug/Kg	1	07/20/2012 15:01
Diphenylamine	ND	U	20.2	449	ug/Kg	1	07/20/2012 15:01
Fluoranthene	ND	U	42.2	449	ug/Kg	1	07/20/2012 15:01
Fluorene	ND	U	23.8	449	ug/Kg	1	07/20/2012 15:01
Hexachlorobenzene	ND	U	42.5	449	ug/Kg	1	07/20/2012 15:01
Hexachlorobutadiene	ND	U	26.8	449	ug/Kg	1	07/20/2012 15:01
Hexachlorocyclopentadiene	ND	U	136	449	ug/Kg	1	07/20/2012 15:01
Hexachloroethane	ND	U	25.8	449	ug/Kg	1	07/20/2012 15:01
Indeno(1,2,3-cd)pyrene	ND	U	35.0	449	ug/Kg	1	07/20/2012 15:01
Isophorone	ND	U	20.4	449	ug/Kg	1	07/20/2012 15:01
Naphthalene	ND	U	38.7	449	ug/Kg	1	07/20/2012 15:01
4-Nitroaniline	ND	U	25.8	449	ug/Kg	1	07/20/2012 15:01
Nitrobenzene	ND	U	25.8	449	ug/Kg	1	07/20/2012 15:01
4-Nitrophenol	ND	U	44.2	449	ug/Kg	1	07/20/2012 15:01
Pentachlorophenol	ND	U	35.9	449	ug/Kg	1	07/20/2012 15:01
Phenanthrene	ND	U	29.6	449	ug/Kg	1	07/20/2012 15:01
Phenol	ND	U	41.9	449	ug/Kg	1	07/20/2012 15:01
Pyrene	ND	U	18.9	449	ug/Kg	1	07/20/2012 15:01
n-Nitrosodi-n-propylamine	ND	U	129	449	ug/Kg	1	07/20/2012 15:01
Surrogates							
2,4,6-Tribromophenol	85.0			41.0-129	%	1	07/20/2012 15:01
2-Fluorobiphenyl	73.0			48.0-123	%	1	07/20/2012 15:01
2-Fluorophenol	78.0			42.0-123	%	1	07/20/2012 15:01
Nitrobenzene-d5	83.0			46.0-117	%	1	07/20/2012 15:01
Phenol-d6	92.0			48.0-125	%	1	07/20/2012 15:01
Terphenyl-d14	79.0			44.0-140	%	1	07/20/2012 15:01

Batch Information

Analytical Batch: **XMS1606**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **07/20/2012 15:01**

Prep Batch: **XXX2835**
Prep Method: **SW-846 3541**
Prep Date/Time: **07/19/2012 10:33**
Prep Initial Wt./Vol.: **30.61 g**
Prep Extract Vol: **10 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-02 (2-3ft)

Client Sample ID: **102 DPT-02 (2-3ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264003-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 16:20
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 86.70

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.877	4.14	ug/Kg	1	07/20/2012 15:53
1,1,1-Trichloroethane	ND	U	0.644	4.14	ug/Kg	1	07/20/2012 15:53
1,1,2,2-Tetrachloroethane	ND	U	0.935	4.14	ug/Kg	1	07/20/2012 15:53
1,1,2-Trichloroethane	ND	U	0.861	4.14	ug/Kg	1	07/20/2012 15:53
1,1-Dichloroethane	ND	U	0.714	4.14	ug/Kg	1	07/20/2012 15:53
1,1-Dichloroethene	ND	U	0.747	4.14	ug/Kg	1	07/20/2012 15:53
1,1-Dichloropropene	ND	U	0.763	4.14	ug/Kg	1	07/20/2012 15:53
1,2,3-Trichlorobenzene	ND	U	1.15	4.14	ug/Kg	1	07/20/2012 15:53
1,2,3-Trichloropropane	ND	U	0.919	4.14	ug/Kg	1	07/20/2012 15:53
1,2,4-Trichlorobenzene	ND	U	0.985	4.14	ug/Kg	1	07/20/2012 15:53
1,2,4-Trimethylbenzene	ND	U	0.886	4.14	ug/Kg	1	07/20/2012 15:53
1,2-Dibromo-3-chloropropane	ND	U	4.81	24.8	ug/Kg	1	07/20/2012 15:53
1,2-Dibromoethane	ND	U	0.627	4.14	ug/Kg	1	07/20/2012 15:53
1,2-Dichlorobenzene	ND	U	1.07	4.14	ug/Kg	1	07/20/2012 15:53
1,2-Dichloroethane	ND	U	0.733	4.14	ug/Kg	1	07/20/2012 15:53
1,2-Dichloropropane	ND	U	0.666	4.14	ug/Kg	1	07/20/2012 15:53
1,3,5-Trimethylbenzene	ND	U	0.814	4.14	ug/Kg	1	07/20/2012 15:53
1,3-Dichlorobenzene	ND	U	0.960	4.14	ug/Kg	1	07/20/2012 15:53
1,3-Dichloropropane	ND	U	0.667	4.14	ug/Kg	1	07/20/2012 15:53
1,4-Dichlorobenzene	ND	U	0.910	4.14	ug/Kg	1	07/20/2012 15:53
2,2-Dichloropropane	ND	U	0.690	4.14	ug/Kg	1	07/20/2012 15:53
2-Butanone	ND	U	1.29	20.7	ug/Kg	1	07/20/2012 15:53
2-Chlorotoluene	ND	U	0.927	4.14	ug/Kg	1	07/20/2012 15:53
2-Hexanone	ND	U	1.61	10.3	ug/Kg	1	07/20/2012 15:53
4-Chlorotoluene	ND	U	0.919	4.14	ug/Kg	1	07/20/2012 15:53
4-Isopropyltoluene	ND	U	0.861	4.14	ug/Kg	1	07/20/2012 15:53
4-Methyl-2-pentanone	ND	U	2.66	10.3	ug/Kg	1	07/20/2012 15:53
Acetone	**19.6**	J	1.03	41.4	ug/Kg	1	07/20/2012 15:53
Benzene	ND	U	0.739	4.14	ug/Kg	1	07/20/2012 15:53
Bromobenzene	ND	U	0.816	4.14	ug/Kg	1	07/20/2012 15:53
Bromochloromethane	ND	U	0.722	4.14	ug/Kg	1	07/20/2012 15:53
Bromodichloromethane	ND	U	0.673	4.14	ug/Kg	1	07/20/2012 15:53
Bromoform	ND	U	0.554	4.14	ug/Kg	1	07/20/2012 15:53
Bromomethane	ND	U	1.46	4.14	ug/Kg	1	07/20/2012 15:53
n-Butylbenzene	ND	U	0.894	4.14	ug/Kg	1	07/20/2012 15:53
Carbon disulfide	ND	U	0.715	4.14	ug/Kg	1	07/20/2012 15:53
Carbon tetrachloride	ND	U	0.720	4.14	ug/Kg	1	07/20/2012 15:53
Chlorobenzene	ND	U	0.641	4.14	ug/Kg	1	07/20/2012 15:53
Chloroethane	ND	U	0.381	4.14	ug/Kg	1	07/20/2012 15:53
Chloroform	ND	U	0.672	4.14	ug/Kg	1	07/20/2012 15:53
Chloromethane	ND	U	0.600	4.14	ug/Kg	1	07/20/2012 15:53
Dibromochloromethane	ND	U	0.701	4.14	ug/Kg	1	07/20/2012 15:53
Dibromomethane	ND	U	0.672	4.14	ug/Kg	1	07/20/2012 15:53
Dichlorodifluoromethane	ND	U	0.602	4.14	ug/Kg	1	07/20/2012 15:53

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-02 (2-3ft)

Client Sample ID: **102 DPT-02 (2-3ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264003-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 16:20
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 86.70

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	U	0.713	4.14	ug/Kg	1	07/20/2012 15:53
trans-1,3-Dichloropropene	ND	U	0.742	4.14	ug/Kg	1	07/20/2012 15:53
Diisopropyl Ether	ND	U	0.743	4.14	ug/Kg	1	07/20/2012 15:53
Ethyl Benzene	ND	U	0.684	4.14	ug/Kg	1	07/20/2012 15:53
Hexachlorobutadiene	ND	U	1.13	4.14	ug/Kg	1	07/20/2012 15:53
Isopropylbenzene (Cumene)	ND	U	0.797	4.14	ug/Kg	1	07/20/2012 15:53
Methyl iodide	ND	U	0.700	4.14	ug/Kg	1	07/20/2012 15:53
Methylene chloride	**1.69**	J	0.578	16.6	ug/Kg	1	07/20/2012 15:53
Naphthalene	ND	U	1.00	4.14	ug/Kg	1	07/20/2012 15:53
Styrene	ND	U	0.816	4.14	ug/Kg	1	07/20/2012 15:53
Tetrachloroethene	ND	U	0.622	4.14	ug/Kg	1	07/20/2012 15:53
Toluene	ND	U	0.670	4.14	ug/Kg	1	07/20/2012 15:53
Trichloroethene	ND	U	0.693	4.14	ug/Kg	1	07/20/2012 15:53
Trichlorofluoromethane	ND	U	0.624	4.14	ug/Kg	1	07/20/2012 15:53
Vinyl chloride	ND	U	0.609	4.14	ug/Kg	1	07/20/2012 15:53
Xylene (total)	ND	U	1.46	8.28	ug/Kg	1	07/20/2012 15:53
cis-1,2-Dichloroethene	ND	U	0.641	4.14	ug/Kg	1	07/20/2012 15:53
m,p-Xylene	ND	U	1.46	8.28	ug/Kg	1	07/20/2012 15:53
n-Propylbenzene	ND	U	0.807	4.14	ug/Kg	1	07/20/2012 15:53
o-Xylene	ND	U	0.836	4.14	ug/Kg	1	07/20/2012 15:53
sec-Butylbenzene	ND	U	0.861	4.14	ug/Kg	1	07/20/2012 15:53
tert-Butyl methyl ether (MTBE)	ND	U	0.705	4.14	ug/Kg	1	07/20/2012 15:53
tert-Butylbenzene	ND	U	0.750	4.14	ug/Kg	1	07/20/2012 15:53
trans-1,2-Dichloroethene	ND	U	0.713	4.14	ug/Kg	1	07/20/2012 15:53
trans-1,4-Dichloro-2-butene	ND	U	4.48	20.7	ug/Kg	1	07/20/2012 15:53
Surrogates							
1,2-Dichloroethane-d4	116			55.0-173	%	1	07/20/2012 15:53
4-Bromofluorobenzene	102			23.0-141	%	1	07/20/2012 15:53
Toluene d8	101			57.0-134	%	1	07/20/2012 15:53

Batch Information

Analytical Batch: **VMS2395**
Analytical Method: **SW-846 8260B**
Instrument: **MSD9**
Analyst: **DVO**
Analytical Date/Time: **07/20/2012 15:53**

Prep Batch: **VXX3672**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **07/19/2012 13:29**
Prep Initial Wt./Vol.: **6.97 g**
Prep Extract Vol: **5 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-02 (2-3ft)

Client Sample ID: **102 DPT-02 (2-3ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264003-E
Lab Project ID: 31202264

Collection Date: 07/16/2012 16:20
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 86.70

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	31.0	352	ug/Kg	1	07/20/2012 15:24
1,2-Dichlorobenzene	ND	U	17.5	352	ug/Kg	1	07/20/2012 15:24
1,3-Dichlorobenzene	ND	U	23.7	352	ug/Kg	1	07/20/2012 15:24
1,4-Dichlorobenzene	ND	U	24.8	352	ug/Kg	1	07/20/2012 15:24
2,4,5-Trichlorophenol	ND	U	23.5	352	ug/Kg	1	07/20/2012 15:24
2,4,6-Trichlorophenol	ND	U	23.8	352	ug/Kg	1	07/20/2012 15:24
2,4-Dichlorophenol	ND	U	20.3	352	ug/Kg	1	07/20/2012 15:24
2,4-Dinitrophenol	ND	U	32.6	702	ug/Kg	1	07/20/2012 15:24
2,4-Dinitrotoluene	ND	U	17.7	352	ug/Kg	1	07/20/2012 15:24
2,6-Dinitrotoluene	ND	U	25.2	352	ug/Kg	1	07/20/2012 15:24
2-Chloronaphthalene	ND	U	20.7	352	ug/Kg	1	07/20/2012 15:24
2-Chlorophenol	ND	U	18.6	352	ug/Kg	1	07/20/2012 15:24
2-Methylnaphthalene	ND	U	28.4	352	ug/Kg	1	07/20/2012 15:24
2-Methylphenol	ND	U	19.4	352	ug/Kg	1	07/20/2012 15:24
2-Nitroaniline	ND	U	23.1	352	ug/Kg	1	07/20/2012 15:24
2-Nitrophenol	ND	U	16.8	352	ug/Kg	1	07/20/2012 15:24
3 and/or 4-Methylphenol	ND	U	22.8	352	ug/Kg	1	07/20/2012 15:24
3,3'-Dichlorobenzidine	ND	U	16.8	352	ug/Kg	1	07/20/2012 15:24
3-Nitroaniline	ND	U	15.8	352	ug/Kg	1	07/20/2012 15:24
4,6-Dinitro-2-methylphenol	ND	U	16.5	352	ug/Kg	1	07/20/2012 15:24
4-Chloro-3-methylphenol	ND	U	17.5	352	ug/Kg	1	07/20/2012 15:24
4-Chloroaniline	ND	U	28.1	352	ug/Kg	1	07/20/2012 15:24
4-Chlorophenyl phenyl ether	ND	U	37.5	352	ug/Kg	1	07/20/2012 15:24
Acenaphthene	ND	U	15.9	352	ug/Kg	1	07/20/2012 15:24
Acenaphthylene	ND	U	14.8	352	ug/Kg	1	07/20/2012 15:24
Anthracene	ND	U	15.6	352	ug/Kg	1	07/20/2012 15:24
Benzo(a)anthracene	ND	U	19.3	352	ug/Kg	1	07/20/2012 15:24
Benzo(a)pyrene	ND	U	19.9	352	ug/Kg	1	07/20/2012 15:24
Benzo(b)fluoranthene	ND	U	20.2	352	ug/Kg	1	07/20/2012 15:24
Benzo(g,h,i)perylene	ND	U	55.9	352	ug/Kg	1	07/20/2012 15:24
Benzo(k)fluoranthene	ND	U	42.1	352	ug/Kg	1	07/20/2012 15:24
Benzoic acid	ND	U	7.79	352	ug/Kg	1	07/20/2012 15:24
Bis(2-Chloroethoxy)methane	ND	U	15.8	352	ug/Kg	1	07/20/2012 15:24
Bis(2-Chloroethyl)ether	ND	U	32.8	352	ug/Kg	1	07/20/2012 15:24
Bis(2-Chloroisopropyl)ether	ND	U	30.7	352	ug/Kg	1	07/20/2012 15:24
Bis(2-Ethylhexyl)phthalate	ND	U	16.8	352	ug/Kg	1	07/20/2012 15:24
4-Bromophenyl phenyl ether	ND	U	23.1	352	ug/Kg	1	07/20/2012 15:24
Butyl benzyl phthalate	ND	U	30.5	352	ug/Kg	1	07/20/2012 15:24
Chrysene	ND	U	40.9	352	ug/Kg	1	07/20/2012 15:24
Di-n-butyl phthalate	ND	U	16.6	352	ug/Kg	1	07/20/2012 15:24
Di-n-octyl phthalate	ND	U	19.4	352	ug/Kg	1	07/20/2012 15:24
Dibenz(a,h)anthracene	ND	U	15.8	352	ug/Kg	1	07/20/2012 15:24
Dibenzofuran	ND	U	27.5	352	ug/Kg	1	07/20/2012 15:24
Diethyl phthalate	ND	U	19.0	352	ug/Kg	1	07/20/2012 15:24

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-02 (2-3ft)

Client Sample ID: **102 DPT-02 (2-3ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264003-E
Lab Project ID: 31202264

Collection Date: 07/16/2012 16:20
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 86.70

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND	U	27.0	352	ug/Kg	1	07/20/2012 15:24
2,4-Dimethylphenol	ND	U	25.7	352	ug/Kg	1	07/20/2012 15:24
Diphenylamine	ND	U	15.8	352	ug/Kg	1	07/20/2012 15:24
Fluoranthene	ND	U	33.0	352	ug/Kg	1	07/20/2012 15:24
Fluorene	ND	U	18.6	352	ug/Kg	1	07/20/2012 15:24
Hexachlorobenzene	ND	U	33.2	352	ug/Kg	1	07/20/2012 15:24
Hexachlorobutadiene	ND	U	21.0	352	ug/Kg	1	07/20/2012 15:24
Hexachlorocyclopentadiene	ND	U	106	352	ug/Kg	1	07/20/2012 15:24
Hexachloroethane	ND	U	20.2	352	ug/Kg	1	07/20/2012 15:24
Indeno(1,2,3-cd)pyrene	ND	U	27.4	352	ug/Kg	1	07/20/2012 15:24
Isophorone	ND	U	15.9	352	ug/Kg	1	07/20/2012 15:24
Naphthalene	ND	U	30.3	352	ug/Kg	1	07/20/2012 15:24
4-Nitroaniline	ND	U	20.2	352	ug/Kg	1	07/20/2012 15:24
Nitrobenzene	ND	U	20.2	352	ug/Kg	1	07/20/2012 15:24
4-Nitrophenol	ND	U	34.6	352	ug/Kg	1	07/20/2012 15:24
Pentachlorophenol	ND	U	28.1	352	ug/Kg	1	07/20/2012 15:24
Phenanthrene	ND	U	23.1	352	ug/Kg	1	07/20/2012 15:24
Phenol	ND	U	32.8	352	ug/Kg	1	07/20/2012 15:24
Pyrene	ND	U	14.8	352	ug/Kg	1	07/20/2012 15:24
n-Nitrosodi-n-propylamine	ND	U	101	352	ug/Kg	1	07/20/2012 15:24
Surrogates							
2,4,6-Tribromophenol	107			41.0-129	%	1	07/20/2012 15:24
2-Fluorobiphenyl	95.0			48.0-123	%	1	07/20/2012 15:24
2-Fluorophenol	86.0			42.0-123	%	1	07/20/2012 15:24
Nitrobenzene-d5	94.0			46.0-117	%	1	07/20/2012 15:24
Phenol-d6	100			48.0-125	%	1	07/20/2012 15:24
Terphenyl-d14	102			44.0-140	%	1	07/20/2012 15:24

Batch Information

Analytical Batch: **XMS1606**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **07/20/2012 15:24**

Prep Batch: **XXX2835**
Prep Method: **SW-846 3541**
Prep Date/Time: **07/19/2012 10:33**
Prep Initial Wt./Vol.: **32.87 g**
Prep Extract Vol: **10 mL**

Print Date: 07/26/2012

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SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-02 (3-4ft)

Client Sample ID: **102 DPT-02 (3-4ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264004-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 16:30
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 86.50

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.907	4.28	ug/Kg	1	07/20/2012 16:21
1,1,1-Trichloroethane	ND	U	0.665	4.28	ug/Kg	1	07/20/2012 16:21
1,1,2,2-Tetrachloroethane	ND	U	0.966	4.28	ug/Kg	1	07/20/2012 16:21
1,1,2-Trichloroethane	ND	U	0.889	4.28	ug/Kg	1	07/20/2012 16:21
1,1-Dichloroethane	ND	U	0.738	4.28	ug/Kg	1	07/20/2012 16:21
1,1-Dichloroethene	ND	U	0.772	4.28	ug/Kg	1	07/20/2012 16:21
1,1-Dichloropropene	ND	U	0.789	4.28	ug/Kg	1	07/20/2012 16:21
1,2,3-Trichlorobenzene	ND	U	1.19	4.28	ug/Kg	1	07/20/2012 16:21
1,2,3-Trichloropropane	ND	U	0.949	4.28	ug/Kg	1	07/20/2012 16:21
1,2,4-Trichlorobenzene	ND	U	1.02	4.28	ug/Kg	1	07/20/2012 16:21
1,2,4-Trimethylbenzene	ND	U	0.915	4.28	ug/Kg	1	07/20/2012 16:21
1,2-Dibromo-3-chloropropane	ND	U	4.97	25.7	ug/Kg	1	07/20/2012 16:21
1,2-Dibromoethane	ND	U	0.648	4.28	ug/Kg	1	07/20/2012 16:21
1,2-Dichlorobenzene	ND	U	1.10	4.28	ug/Kg	1	07/20/2012 16:21
1,2-Dichloroethane	ND	U	0.758	4.28	ug/Kg	1	07/20/2012 16:21
1,2-Dichloropropane	ND	U	0.688	4.28	ug/Kg	1	07/20/2012 16:21
1,3,5-Trimethylbenzene	ND	U	0.842	4.28	ug/Kg	1	07/20/2012 16:21
1,3-Dichlorobenzene	ND	U	0.992	4.28	ug/Kg	1	07/20/2012 16:21
1,3-Dichloropropane	ND	U	0.689	4.28	ug/Kg	1	07/20/2012 16:21
1,4-Dichlorobenzene	ND	U	0.941	4.28	ug/Kg	1	07/20/2012 16:21
2,2-Dichloropropane	ND	U	0.713	4.28	ug/Kg	1	07/20/2012 16:21
2-Butanone	ND	U	1.33	21.4	ug/Kg	1	07/20/2012 16:21
2-Chlorotoluene	ND	U	0.958	4.28	ug/Kg	1	07/20/2012 16:21
2-Hexanone	ND	U	1.67	10.7	ug/Kg	1	07/20/2012 16:21
4-Chlorotoluene	ND	U	0.949	4.28	ug/Kg	1	07/20/2012 16:21
4-Isopropyltoluene	ND	U	0.889	4.28	ug/Kg	1	07/20/2012 16:21
4-Methyl-2-pentanone	ND	U	2.75	10.7	ug/Kg	1	07/20/2012 16:21
Acetone	**20.0**	J	1.06	42.8	ug/Kg	1	07/20/2012 16:21
Benzene	ND	U	0.764	4.28	ug/Kg	1	07/20/2012 16:21
Bromobenzene	ND	U	0.843	4.28	ug/Kg	1	07/20/2012 16:21
Bromochloromethane	ND	U	0.747	4.28	ug/Kg	1	07/20/2012 16:21
Bromodichloromethane	ND	U	0.695	4.28	ug/Kg	1	07/20/2012 16:21
Bromoform	ND	U	0.572	4.28	ug/Kg	1	07/20/2012 16:21
Bromomethane	ND	U	1.51	4.28	ug/Kg	1	07/20/2012 16:21
n-Butylbenzene	ND	U	0.924	4.28	ug/Kg	1	07/20/2012 16:21
Carbon disulfide	ND	U	0.739	4.28	ug/Kg	1	07/20/2012 16:21
Carbon tetrachloride	ND	U	0.744	4.28	ug/Kg	1	07/20/2012 16:21
Chlorobenzene	ND	U	0.662	4.28	ug/Kg	1	07/20/2012 16:21
Chloroethane	ND	U	0.393	4.28	ug/Kg	1	07/20/2012 16:21
Chloroform	ND	U	0.694	4.28	ug/Kg	1	07/20/2012 16:21
Chloromethane	ND	U	0.620	4.28	ug/Kg	1	07/20/2012 16:21
Dibromochloromethane	ND	U	0.724	4.28	ug/Kg	1	07/20/2012 16:21
Dibromomethane	ND	U	0.694	4.28	ug/Kg	1	07/20/2012 16:21
Dichlorodifluoromethane	ND	U	0.622	4.28	ug/Kg	1	07/20/2012 16:21

Print Date: 07/26/2012

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Results of 102 DPT-02 (3-4ft)

Client Sample ID: **102 DPT-02 (3-4ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264004-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 16:30
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 86.50

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	U	0.736	4.28	ug/Kg	1	07/20/2012 16:21
trans-1,3-Dichloropropene	ND	U	0.766	4.28	ug/Kg	1	07/20/2012 16:21
Diisopropyl Ether	ND	U	0.768	4.28	ug/Kg	1	07/20/2012 16:21
Ethyl Benzene	ND	U	0.707	4.28	ug/Kg	1	07/20/2012 16:21
Hexachlorobutadiene	ND	U	1.17	4.28	ug/Kg	1	07/20/2012 16:21
Isopropylbenzene (Cumene)	ND	U	0.824	4.28	ug/Kg	1	07/20/2012 16:21
Methyl iodide	ND	U	0.724	4.28	ug/Kg	1	07/20/2012 16:21
Methylene chloride	3.27	J	0.597	17.1	ug/Kg	1	07/20/2012 16:21
Naphthalene	ND	U	1.03	4.28	ug/Kg	1	07/20/2012 16:21
Styrene	ND	U	0.843	4.28	ug/Kg	1	07/20/2012 16:21
Tetrachloroethene	ND	U	0.643	4.28	ug/Kg	1	07/20/2012 16:21
Toluene	ND	U	0.693	4.28	ug/Kg	1	07/20/2012 16:21
Trichloroethene	ND	U	0.716	4.28	ug/Kg	1	07/20/2012 16:21
Trichlorofluoromethane	ND	U	0.645	4.28	ug/Kg	1	07/20/2012 16:21
Vinyl chloride	ND	U	0.629	4.28	ug/Kg	1	07/20/2012 16:21
Xylene (total)	ND	U	1.51	8.55	ug/Kg	1	07/20/2012 16:21
cis-1,2-Dichloroethene	ND	U	0.663	4.28	ug/Kg	1	07/20/2012 16:21
m,p-Xylene	ND	U	1.51	8.55	ug/Kg	1	07/20/2012 16:21
n-Propylbenzene	ND	U	0.834	4.28	ug/Kg	1	07/20/2012 16:21
o-Xylene	ND	U	0.864	4.28	ug/Kg	1	07/20/2012 16:21
sec-Butylbenzene	ND	U	0.889	4.28	ug/Kg	1	07/20/2012 16:21
tert-Butyl methyl ether (MTBE)	ND	U	0.729	4.28	ug/Kg	1	07/20/2012 16:21
tert-Butylbenzene	ND	U	0.775	4.28	ug/Kg	1	07/20/2012 16:21
trans-1,2-Dichloroethene	ND	U	0.736	4.28	ug/Kg	1	07/20/2012 16:21
trans-1,4-Dichloro-2-butene	ND	U	4.63	21.4	ug/Kg	1	07/20/2012 16:21
Surrogates							
1,2-Dichloroethane-d4	121			55.0-173	%	1	07/20/2012 16:21
4-Bromofluorobenzene	93.0			23.0-141	%	1	07/20/2012 16:21
Toluene d8	102			57.0-134	%	1	07/20/2012 16:21

Batch Information

Analytical Batch: **VMS2395**
Analytical Method: **SW-846 8260B**
Instrument: **MSD9**
Analyst: **DVO**
Analytical Date/Time: **07/20/2012 16:21**

Prep Batch: **VXX3672**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **07/19/2012 13:31**
Prep Initial Wt./Vol.: **6.76 g**
Prep Extract Vol: **5 mL**

Print Date: 07/26/2012

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SGS ANALYTICAL PERSPECTIVES

Results of **102 DPT-02 (3-4ft)**

Client Sample ID: **102 DPT-02 (3-4ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264004-E
Lab Project ID: 31202264

Collection Date: 07/16/2012 16:30
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 86.50

Results by **SW-846 8270D**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	32.9	373	ug/Kg	1	07/20/2012 15:47
1,2-Dichlorobenzene	ND	U	18.6	373	ug/Kg	1	07/20/2012 15:47
1,3-Dichlorobenzene	ND	U	25.1	373	ug/Kg	1	07/20/2012 15:47
1,4-Dichlorobenzene	ND	U	26.3	373	ug/Kg	1	07/20/2012 15:47
2,4,5-Trichlorophenol	ND	U	24.9	373	ug/Kg	1	07/20/2012 15:47
2,4,6-Trichlorophenol	ND	U	25.3	373	ug/Kg	1	07/20/2012 15:47
2,4-Dichlorophenol	ND	U	21.6	373	ug/Kg	1	07/20/2012 15:47
2,4-Dinitrophenol	ND	U	34.6	745	ug/Kg	1	07/20/2012 15:47
2,4-Dinitrotoluene	ND	U	18.8	373	ug/Kg	1	07/20/2012 15:47
2,6-Dinitrotoluene	ND	U	26.7	373	ug/Kg	1	07/20/2012 15:47
2-Chloronaphthalene	ND	U	21.9	373	ug/Kg	1	07/20/2012 15:47
2-Chlorophenol	ND	U	19.8	373	ug/Kg	1	07/20/2012 15:47
2-Methylnaphthalene	ND	U	30.1	373	ug/Kg	1	07/20/2012 15:47
2-Methylphenol	ND	U	20.6	373	ug/Kg	1	07/20/2012 15:47
2-Nitroaniline	ND	U	24.5	373	ug/Kg	1	07/20/2012 15:47
2-Nitrophenol	ND	U	17.9	373	ug/Kg	1	07/20/2012 15:47
3 and/or 4-Methylphenol	ND	U	24.2	373	ug/Kg	1	07/20/2012 15:47
3,3'-Dichlorobenzidine	ND	U	17.9	373	ug/Kg	1	07/20/2012 15:47
3-Nitroaniline	ND	U	16.8	373	ug/Kg	1	07/20/2012 15:47
4,6-Dinitro-2-methylphenol	ND	U	17.5	373	ug/Kg	1	07/20/2012 15:47
4-Chloro-3-methylphenol	ND	U	18.6	373	ug/Kg	1	07/20/2012 15:47
4-Chloroaniline	ND	U	29.8	373	ug/Kg	1	07/20/2012 15:47
4-Chlorophenyl phenyl ether	ND	U	39.8	373	ug/Kg	1	07/20/2012 15:47
Acenaphthene	ND	U	16.9	373	ug/Kg	1	07/20/2012 15:47
Acenaphthylene	ND	U	15.7	373	ug/Kg	1	07/20/2012 15:47
Anthracene	ND	U	16.6	373	ug/Kg	1	07/20/2012 15:47
Benzo(a)anthracene	ND	U	20.5	373	ug/Kg	1	07/20/2012 15:47
Benzo(a)pyrene	ND	U	21.1	373	ug/Kg	1	07/20/2012 15:47
Benzo(b)fluoranthene	ND	U	21.5	373	ug/Kg	1	07/20/2012 15:47
Benzo(g,h,i)perylene	ND	U	59.3	373	ug/Kg	1	07/20/2012 15:47
Benzo(k)fluoranthene	ND	U	44.7	373	ug/Kg	1	07/20/2012 15:47
Benzoic acid	ND	U	8.27	373	ug/Kg	1	07/20/2012 15:47
Bis(2-Chloroethoxy)methane	ND	U	16.8	373	ug/Kg	1	07/20/2012 15:47
Bis(2-Chloroethyl)ether	ND	U	34.8	373	ug/Kg	1	07/20/2012 15:47
Bis(2-Chloroisopropyl)ether	ND	U	32.5	373	ug/Kg	1	07/20/2012 15:47
Bis(2-Ethylhexyl)phthalate	**40.9**	J	17.9	373	ug/Kg	1	07/20/2012 15:47
4-Bromophenyl phenyl ether	ND	U	24.5	373	ug/Kg	1	07/20/2012 15:47
Butyl benzyl phthalate	ND	U	32.4	373	ug/Kg	1	07/20/2012 15:47
Chrysene	ND	U	43.4	373	ug/Kg	1	07/20/2012 15:47
Di-n-butyl phthalate	ND	U	17.6	373	ug/Kg	1	07/20/2012 15:47
Di-n-octyl phthalate	ND	U	20.6	373	ug/Kg	1	07/20/2012 15:47
Dibenz(a,h)anthracene	ND	U	16.8	373	ug/Kg	1	07/20/2012 15:47
Dibenzofuran	ND	U	29.2	373	ug/Kg	1	07/20/2012 15:47
Diethyl phthalate	ND	U	20.1	373	ug/Kg	1	07/20/2012 15:47

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-02 (3-4ft)

Client Sample ID: **102 DPT-02 (3-4ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264004-E
Lab Project ID: 31202264

Collection Date: 07/16/2012 16:30
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 86.50

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND	U	28.6	373	ug/Kg	1	07/20/2012 15:47
2,4-Dimethylphenol	ND	U	27.3	373	ug/Kg	1	07/20/2012 15:47
Diphenylamine	ND	U	16.8	373	ug/Kg	1	07/20/2012 15:47
Fluoranthene	ND	U	35.0	373	ug/Kg	1	07/20/2012 15:47
Fluorene	ND	U	19.8	373	ug/Kg	1	07/20/2012 15:47
Hexachlorobenzene	ND	U	35.3	373	ug/Kg	1	07/20/2012 15:47
Hexachlorobutadiene	ND	U	22.3	373	ug/Kg	1	07/20/2012 15:47
Hexachlorocyclopentadiene	ND	U	113	373	ug/Kg	1	07/20/2012 15:47
Hexachloroethane	ND	U	21.5	373	ug/Kg	1	07/20/2012 15:47
Indeno(1,2,3-cd)pyrene	ND	U	29.1	373	ug/Kg	1	07/20/2012 15:47
Isophorone	ND	U	16.9	373	ug/Kg	1	07/20/2012 15:47
Naphthalene	ND	U	32.2	373	ug/Kg	1	07/20/2012 15:47
4-Nitroaniline	ND	U	21.5	373	ug/Kg	1	07/20/2012 15:47
Nitrobenzene	ND	U	21.5	373	ug/Kg	1	07/20/2012 15:47
4-Nitrophenol	ND	U	36.7	373	ug/Kg	1	07/20/2012 15:47
Pentachlorophenol	ND	U	29.8	373	ug/Kg	1	07/20/2012 15:47
Phenanthrene	ND	U	24.5	373	ug/Kg	1	07/20/2012 15:47
Phenol	ND	U	34.8	373	ug/Kg	1	07/20/2012 15:47
Pyrene	ND	U	15.7	373	ug/Kg	1	07/20/2012 15:47
n-Nitrosodi-n-propylamine	ND	U	107	373	ug/Kg	1	07/20/2012 15:47
Surrogates							
2,4,6-Tribromophenol	95.0			41.0-129	%	1	07/20/2012 15:47
2-Fluorobiphenyl	86.0			48.0-123	%	1	07/20/2012 15:47
2-Fluorophenol	82.0			42.0-123	%	1	07/20/2012 15:47
Nitrobenzene-d5	89.0			46.0-117	%	1	07/20/2012 15:47
Phenol-d6	97.0			48.0-125	%	1	07/20/2012 15:47
Terphenyl-d14	94.0			44.0-140	%	1	07/20/2012 15:47

Batch Information

Analytical Batch: **XMS1606**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **07/20/2012 15:47**

Prep Batch: **XXX2835**
Prep Method: **SW-846 3541**
Prep Date/Time: **07/19/2012 10:33**
Prep Initial Wt./Vol.: **31.05 g**
Prep Extract Vol: **10 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-03 (4-5ft)

Client Sample ID: **102 DPT-03 (4-5ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264005-D
Lab Project ID: 31202264

Collection Date: 07/16/2012 17:00
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 78.90

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	5.47	52.6	ug/Kg	50	07/23/2012 17:27
1,1,1-Trichloroethane	ND	U	6.47	52.6	ug/Kg	50	07/23/2012 17:27
1,1,2,2-Tetrachloroethane	ND	U	8.21	52.6	ug/Kg	50	07/23/2012 17:27
1,1,2-Trichloroethane	ND	U	6.63	52.6	ug/Kg	50	07/23/2012 17:27
1,1-Dichloroethane	ND	U	8.68	52.6	ug/Kg	50	07/23/2012 17:27
1,1-Dichloroethene	ND	U	11.2	52.6	ug/Kg	50	07/23/2012 17:27
1,1-Dichloropropene	ND	U	4.54	52.6	ug/Kg	50	07/23/2012 17:27
1,2,3-Trichlorobenzene	ND	U	5.79	52.6	ug/Kg	50	07/23/2012 17:27
1,2,3-Trichloropropane	ND	U	11.2	52.6	ug/Kg	50	07/23/2012 17:27
1,2,4-Trichlorobenzene	ND	U	4.81	52.6	ug/Kg	50	07/23/2012 17:27
1,2,4-Trimethylbenzene	ND	U	5.06	52.6	ug/Kg	50	07/23/2012 17:27
1,2-Dibromo-3-chloropropane	ND	U	39.4	263	ug/Kg	50	07/23/2012 17:27
1,2-Dibromoethane	ND	U	6.32	52.6	ug/Kg	50	07/23/2012 17:27
1,2-Dichlorobenzene	ND	U	7.21	52.6	ug/Kg	50	07/23/2012 17:27
1,2-Dichloroethane	ND	U	8.79	52.6	ug/Kg	50	07/23/2012 17:27
1,2-Dichloropropane	ND	U	8.58	52.6	ug/Kg	50	07/23/2012 17:27
1,3,5-Trimethylbenzene	ND	U	5.95	52.6	ug/Kg	50	07/23/2012 17:27
1,3-Dichlorobenzene	ND	U	5.42	52.6	ug/Kg	50	07/23/2012 17:27
1,3-Dichloropropane	ND	U	6.84	52.6	ug/Kg	50	07/23/2012 17:27
1,4-Dichlorobenzene	ND	U	6.84	52.6	ug/Kg	50	07/23/2012 17:27
2,2-Dichloropropane	ND	U	20.7	52.6	ug/Kg	50	07/23/2012 17:27
2-Butanone	ND	U	38.1	1320	ug/Kg	50	07/23/2012 17:27
2-Chlorotoluene	ND	U	5.95	52.6	ug/Kg	50	07/23/2012 17:27
2-Hexanone	ND	U	38.3	263	ug/Kg	50	07/23/2012 17:27
4-Chlorotoluene	ND	U	6.58	52.6	ug/Kg	50	07/23/2012 17:27
4-Isopropyltoluene	ND	U	4.05	52.6	ug/Kg	50	07/23/2012 17:27
4-Methyl-2-pentanone	ND	U	29.4	263	ug/Kg	50	07/23/2012 17:27
Acetone	ND	U	45.5	1320	ug/Kg	50	07/23/2012 17:27
Benzene	ND	U	5.95	52.6	ug/Kg	50	07/23/2012 17:27
Bromobenzene	ND	U	5.79	52.6	ug/Kg	50	07/23/2012 17:27
Bromochloromethane	ND	U	11.1	52.6	ug/Kg	50	07/23/2012 17:27
Bromodichloromethane	ND	U	5.79	52.6	ug/Kg	50	07/23/2012 17:27
Bromoform	ND	U	5.13	52.6	ug/Kg	50	07/23/2012 17:27
Bromomethane	ND	U	12.5	52.6	ug/Kg	50	07/23/2012 17:27
n-Butylbenzene	ND	U	4.05	52.6	ug/Kg	50	07/23/2012 17:27
Carbon disulfide	ND	U	5.58	52.6	ug/Kg	50	07/23/2012 17:27
Carbon tetrachloride	ND	U	5.32	52.6	ug/Kg	50	07/23/2012 17:27
Chlorobenzene	ND	U	6.11	52.6	ug/Kg	50	07/23/2012 17:27
Chloroethane	ND	U	16.4	52.6	ug/Kg	50	07/23/2012 17:27
Chloroform	ND	U	7.32	52.6	ug/Kg	50	07/23/2012 17:27
Chloromethane	ND	U	23.6	52.6	ug/Kg	50	07/23/2012 17:27
Dibromochloromethane	ND	U	7.05	52.6	ug/Kg	50	07/23/2012 17:27
Dibromomethane	ND	U	8.84	52.6	ug/Kg	50	07/23/2012 17:27
Dichlorodifluoromethane	ND	U	9.00	263	ug/Kg	50	07/23/2012 17:27

Print Date: 07/26/2012

N.C. Certification # 481

Results of 102 DPT-03 (4-5ft)

Client Sample ID: **102 DPT-03 (4-5ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264005-D
Lab Project ID: 31202264

Collection Date: 07/16/2012 17:00
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 78.90

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	U	4.04	52.6	ug/Kg	50	07/23/2012 17:27
trans-1,3-Dichloropropene	ND	U	4.54	52.6	ug/Kg	50	07/23/2012 17:27
Diisopropyl Ether	ND	U	15.5	52.6	ug/Kg	50	07/23/2012 17:27
Ethyl Benzene	ND	U	4.62	52.6	ug/Kg	50	07/23/2012 17:27
Hexachlorobutadiene	ND	U	4.17	52.6	ug/Kg	50	07/23/2012 17:27
Isopropylbenzene (Cumene)	ND	U	4.57	52.6	ug/Kg	50	07/23/2012 17:27
Methyl iodide	ND	U	6.05	52.6	ug/Kg	50	07/23/2012 17:27
Methylene chloride	ND	U	8.00	263	ug/Kg	50	07/23/2012 17:27
Naphthalene	ND	U	4.50	52.6	ug/Kg	50	07/23/2012 17:27
Styrene	ND	U	5.37	52.6	ug/Kg	50	07/23/2012 17:27
Tetrachloroethene	**230**		8.16	52.6	ug/Kg	50	07/23/2012 17:27
Toluene	ND	U	7.00	52.6	ug/Kg	50	07/23/2012 17:27
Trichloroethene	ND	U	6.58	52.6	ug/Kg	50	07/23/2012 17:27
Trichlorofluoromethane	ND	U	7.21	52.6	ug/Kg	50	07/23/2012 17:27
Vinyl chloride	ND	U	6.53	52.6	ug/Kg	50	07/23/2012 17:27
Xylene (total)	ND	U	9.58	105	ug/Kg	50	07/23/2012 17:27
cis-1,2-Dichloroethene	ND	U	7.16	52.6	ug/Kg	50	07/23/2012 17:27
m,p-Xylene	ND	U	9.58	105	ug/Kg	50	07/23/2012 17:27
n-Propylbenzene	ND	U	5.95	52.6	ug/Kg	50	07/23/2012 17:27
o-Xylene	ND	U	4.60	52.6	ug/Kg	50	07/23/2012 17:27
sec-Butylbenzene	ND	U	5.90	52.6	ug/Kg	50	07/23/2012 17:27
tert-Butyl methyl ether (MTBE)	ND	U	7.58	52.6	ug/Kg	50	07/23/2012 17:27
tert-Butylbenzene	ND	U	4.50	52.6	ug/Kg	50	07/23/2012 17:27
trans-1,2-Dichloroethene	ND	U	11.7	52.6	ug/Kg	50	07/23/2012 17:27
trans-1,4-Dichloro-2-butene	ND	U	21.8	263	ug/Kg	50	07/23/2012 17:27
Surrogates							
1,2-Dichloroethane-d4	94.0			55.0-173	%	50	07/23/2012 17:27
4-Bromofluorobenzene	93.0			23.0-141	%	50	07/23/2012 17:27
Toluene d8	96.0			57.0-134	%	50	07/23/2012 17:27

Batch Information

Analytical Batch: **VMS2399**
Analytical Method: **SW-846 8260B**
Instrument: **MSD4**
Analyst: **DVO**
Analytical Date/Time: **07/23/2012 17:27**

Prep Batch: **VXX3689**
Prep Method: **SW-846 5035 SM**
Prep Date/Time: **07/19/2012 13:33**
Prep Initial Wt./Vol.: **6.02 g**
Prep Extract Vol: **5 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-03 (4-5ft)

Client Sample ID: **102 DPT-03 (4-5ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264005-E
Lab Project ID: 31202264

Collection Date: 07/16/2012 17:00
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 78.90

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	33.7	382	ug/Kg	1	07/20/2012 16:10
1,2-Dichlorobenzene	ND	U	19.0	382	ug/Kg	1	07/20/2012 16:10
1,3-Dichlorobenzene	ND	U	25.7	382	ug/Kg	1	07/20/2012 16:10
1,4-Dichlorobenzene	ND	U	27.0	382	ug/Kg	1	07/20/2012 16:10
2,4,5-Trichlorophenol	ND	U	25.5	382	ug/Kg	1	07/20/2012 16:10
2,4,6-Trichlorophenol	ND	U	25.9	382	ug/Kg	1	07/20/2012 16:10
2,4-Dichlorophenol	ND	U	22.1	382	ug/Kg	1	07/20/2012 16:10
2,4-Dinitrophenol	ND	U	35.4	763	ug/Kg	1	07/20/2012 16:10
2,4-Dinitrotoluene	ND	U	19.3	382	ug/Kg	1	07/20/2012 16:10
2,6-Dinitrotoluene	ND	U	27.3	382	ug/Kg	1	07/20/2012 16:10
2-Chloronaphthalene	ND	U	22.5	382	ug/Kg	1	07/20/2012 16:10
2-Chlorophenol	ND	U	20.3	382	ug/Kg	1	07/20/2012 16:10
2-Methylnaphthalene	ND	U	30.9	382	ug/Kg	1	07/20/2012 16:10
2-Methylphenol	ND	U	21.1	382	ug/Kg	1	07/20/2012 16:10
2-Nitroaniline	ND	U	25.1	382	ug/Kg	1	07/20/2012 16:10
2-Nitrophenol	ND	U	18.3	382	ug/Kg	1	07/20/2012 16:10
3 and/or 4-Methylphenol	ND	U	24.8	382	ug/Kg	1	07/20/2012 16:10
3,3'-Dichlorobenzidine	ND	U	18.3	382	ug/Kg	1	07/20/2012 16:10
3-Nitroaniline	ND	U	17.2	382	ug/Kg	1	07/20/2012 16:10
4,6-Dinitro-2-methylphenol	ND	U	17.9	382	ug/Kg	1	07/20/2012 16:10
4-Chloro-3-methylphenol	ND	U	19.0	382	ug/Kg	1	07/20/2012 16:10
4-Chloroaniline	ND	U	30.5	382	ug/Kg	1	07/20/2012 16:10
4-Chlorophenyl phenyl ether	ND	U	40.8	382	ug/Kg	1	07/20/2012 16:10
Acenaphthene	ND	U	17.3	382	ug/Kg	1	07/20/2012 16:10
Acenaphthylene	ND	U	16.1	382	ug/Kg	1	07/20/2012 16:10
Anthracene	ND	U	17.0	382	ug/Kg	1	07/20/2012 16:10
Benzo(a)anthracene	ND	U	21.0	382	ug/Kg	1	07/20/2012 16:10
Benzo(a)pyrene	ND	U	21.6	382	ug/Kg	1	07/20/2012 16:10
Benzo(b)fluoranthene	ND	U	22.0	382	ug/Kg	1	07/20/2012 16:10
Benzo(g,h,i)perylene	ND	U	60.8	382	ug/Kg	1	07/20/2012 16:10
Benzo(k)fluoranthene	ND	U	45.8	382	ug/Kg	1	07/20/2012 16:10
Benzoic acid	ND	U	8.47	382	ug/Kg	1	07/20/2012 16:10
Bis(2-Chloroethoxy)methane	ND	U	17.2	382	ug/Kg	1	07/20/2012 16:10
Bis(2-Chloroethyl)ether	ND	U	35.6	382	ug/Kg	1	07/20/2012 16:10
Bis(2-Chloroisopropyl)ether	ND	U	33.3	382	ug/Kg	1	07/20/2012 16:10
Bis(2-Ethylhexyl)phthalate	ND	U	18.3	382	ug/Kg	1	07/20/2012 16:10
4-Bromophenyl phenyl ether	ND	U	25.1	382	ug/Kg	1	07/20/2012 16:10
Butyl benzyl phthalate	ND	U	33.2	382	ug/Kg	1	07/20/2012 16:10
Chrysene	ND	U	44.4	382	ug/Kg	1	07/20/2012 16:10
Di-n-butyl phthalate	ND	U	18.1	382	ug/Kg	1	07/20/2012 16:10
Di-n-octyl phthalate	ND	U	21.1	382	ug/Kg	1	07/20/2012 16:10
Dibenz(a,h)anthracene	ND	U	17.2	382	ug/Kg	1	07/20/2012 16:10
Dibenzofuran	ND	U	29.9	382	ug/Kg	1	07/20/2012 16:10
Diethyl phthalate	ND	U	20.6	382	ug/Kg	1	07/20/2012 16:10

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-03 (4-5ft)

Client Sample ID: **102 DPT-03 (4-5ft)**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264005-E
Lab Project ID: 31202264

Collection Date: 07/16/2012 17:00
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 78.90

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND	U	29.3	382	ug/Kg	1	07/20/2012 16:10
2,4-Dimethylphenol	ND	U	27.9	382	ug/Kg	1	07/20/2012 16:10
Diphenylamine	ND	U	17.2	382	ug/Kg	1	07/20/2012 16:10
Fluoranthene	ND	U	35.9	382	ug/Kg	1	07/20/2012 16:10
Fluorene	ND	U	20.3	382	ug/Kg	1	07/20/2012 16:10
Hexachlorobenzene	ND	U	36.1	382	ug/Kg	1	07/20/2012 16:10
Hexachlorobutadiene	ND	U	22.8	382	ug/Kg	1	07/20/2012 16:10
Hexachlorocyclopentadiene	ND	U	116	382	ug/Kg	1	07/20/2012 16:10
Hexachloroethane	ND	U	22.0	382	ug/Kg	1	07/20/2012 16:10
Indeno(1,2,3-cd)pyrene	ND	U	29.8	382	ug/Kg	1	07/20/2012 16:10
Isophorone	ND	U	17.3	382	ug/Kg	1	07/20/2012 16:10
Naphthalene	ND	U	32.9	382	ug/Kg	1	07/20/2012 16:10
4-Nitroaniline	ND	U	22.0	382	ug/Kg	1	07/20/2012 16:10
Nitrobenzene	ND	U	22.0	382	ug/Kg	1	07/20/2012 16:10
4-Nitrophenol	ND	U	37.6	382	ug/Kg	1	07/20/2012 16:10
Pentachlorophenol	ND	U	30.5	382	ug/Kg	1	07/20/2012 16:10
Phenanthrene	ND	U	25.1	382	ug/Kg	1	07/20/2012 16:10
Phenol	ND	U	35.6	382	ug/Kg	1	07/20/2012 16:10
Pyrene	ND	U	16.1	382	ug/Kg	1	07/20/2012 16:10
n-Nitrosodi-n-propylamine	ND	U	109	382	ug/Kg	1	07/20/2012 16:10
Surrogates							
2,4,6-Tribromophenol	93.0			41.0-129	%	1	07/20/2012 16:10
2-Fluorobiphenyl	84.0			48.0-123	%	1	07/20/2012 16:10
2-Fluorophenol	79.0			42.0-123	%	1	07/20/2012 16:10
Nitrobenzene-d5	86.0			46.0-117	%	1	07/20/2012 16:10
Phenol-d6	92.0			48.0-125	%	1	07/20/2012 16:10
Terphenyl-d14	91.0			44.0-140	%	1	07/20/2012 16:10

Batch Information

Analytical Batch: **XMS1606**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **07/20/2012 16:10**

Prep Batch: **XXX2835**
Prep Method: **SW-846 3541**
Prep Date/Time: **07/19/2012 10:33**
Prep Initial Wt./Vol.: **33.24 g**
Prep Extract Vol: **10 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-03

Client Sample ID: **102 DPT-03**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264006-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 18:00
Received Date: 07/18/2012 16:30
Matrix: Water

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	07/23/2012 14:29
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	07/23/2012 14:29
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	07/23/2012 14:29
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	07/23/2012 14:29
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1	07/23/2012 14:29
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	07/23/2012 14:29
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	07/23/2012 14:29
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	07/23/2012 14:29
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	07/23/2012 14:29
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	07/23/2012 14:29
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	07/23/2012 14:29
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	07/23/2012 14:29
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	07/23/2012 14:29
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	07/23/2012 14:29
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1	07/23/2012 14:29
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	07/23/2012 14:29
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	07/23/2012 14:29
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	07/23/2012 14:29
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	07/23/2012 14:29
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	07/23/2012 14:29
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	07/23/2012 14:29
2-Butanone	**1.07**	J	0.723	25.0	ug/L	1	07/23/2012 14:29
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	07/23/2012 14:29
2-Hexanone	ND	U	0.728	5.00	ug/L	1	07/23/2012 14:29
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	07/23/2012 14:29
4-Isopropyltoluene	**1.37**		0.0769	1.00	ug/L	1	07/23/2012 14:29
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	07/23/2012 14:29
Acetone	ND	U	0.864	25.0	ug/L	1	07/24/2012 14:41
Benzene	**0.130**	J	0.113	1.00	ug/L	1	07/23/2012 14:29
Bromobenzene	ND	U	0.110	1.00	ug/L	1	07/23/2012 14:29
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	07/23/2012 14:29
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	07/23/2012 14:29
Bromoform	ND	U	0.0974	1.00	ug/L	1	07/23/2012 14:29
Bromomethane	ND	U	0.237	1.00	ug/L	1	07/23/2012 14:29
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	07/23/2012 14:29
Carbon disulfide	**0.380**	J	0.106	1.00	ug/L	1	07/23/2012 14:29
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	07/23/2012 14:29
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	07/23/2012 14:29
Chloroethane	ND	U	0.311	1.00	ug/L	1	07/23/2012 14:29
Chloroform	ND	U	0.139	1.00	ug/L	1	07/23/2012 14:29
Chloromethane	ND	U	0.448	1.00	ug/L	1	07/23/2012 14:29
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	07/23/2012 14:29
Dibromomethane	ND	U	0.168	1.00	ug/L	1	07/23/2012 14:29
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	07/23/2012 14:29

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-03

Client Sample ID: **102 DPT-03**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264006-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 18:00
Received Date: 07/18/2012 16:30
Matrix: Water

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	07/23/2012 14:29
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	07/23/2012 14:29
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	07/23/2012 14:29
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	07/23/2012 14:29
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	07/23/2012 14:29
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	07/23/2012 14:29
Methyl iodide	ND	U	0.115	1.00	ug/L	1	07/23/2012 14:29
Methylene chloride	ND	U	0.152	5.00	ug/L	1	07/23/2012 14:29
Naphthalene	ND	U	0.0855	1.00	ug/L	1	07/23/2012 14:29
Styrene	ND	U	0.102	1.00	ug/L	1	07/23/2012 14:29
Tetrachloroethene	**35.8**		0.155	1.00	ug/L	1	07/23/2012 14:29
Toluene	**0.380**	J	0.133	1.00	ug/L	1	07/23/2012 14:29
Trichloroethene	**0.830**	J	0.125	1.00	ug/L	1	07/23/2012 14:29
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	07/23/2012 14:29
Vinyl chloride	ND	U	0.124	1.00	ug/L	1	07/23/2012 14:29
Xylene (total)	ND	U	0.182	2.00	ug/L	1	07/23/2012 14:29
cis-1,2-Dichloroethene	ND	U	0.136	1.00	ug/L	1	07/23/2012 14:29
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	07/23/2012 14:29
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	07/23/2012 14:29
o-Xylene	ND	U	0.0874	1.00	ug/L	1	07/23/2012 14:29
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	07/23/2012 14:29
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	07/23/2012 14:29
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	07/23/2012 14:29
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	07/23/2012 14:29
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	07/23/2012 14:29
Surrogates							
1,2-Dichloroethane-d4	102			64.0-140	%	1	07/23/2012 14:29
4-Bromofluorobenzene	102			85.0-115	%	1	07/23/2012 14:29
Toluene d8	102			82.0-117	%	1	07/23/2012 14:29

Batch Information

Analytical Batch: **VMS2401**
Analytical Method: **SW-846 8260B**
Instrument: **MSD3**
Analyst: **BWS**
Analytical Date/Time: **07/23/2012 14:29**

Prep Batch: **VXX3684**
Prep Method: **SW-846 5030B**
Prep Date/Time: **07/23/2012 09:01**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Analytical Batch: **VMS2404**
Analytical Method: **SW-846 8260B**
Instrument: **MSD3**
Analyst: **BWS**
Analytical Date/Time: **07/24/2012 14:41**

Prep Batch: **VXX3692**
Prep Method: **SW-846 5030B**
Prep Date/Time: **07/24/2012 09:42**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of 102 DPT-03

Client Sample ID: **102 DPT-03**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264006-D
Lab Project ID: 31202264

Collection Date: 07/16/2012 18:00
Received Date: 07/18/2012 16:30
Matrix: Water

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	U	1.83	5.28	ug/L	1	07/25/2012 13:15
1,2-Dichlorobenzene	ND	U	1.81	5.28	ug/L	1	07/25/2012 13:15
1,3-Dichlorobenzene	ND	U	1.74	5.28	ug/L	1	07/25/2012 13:15
1,4-Dichlorobenzene	ND	U	1.72	5.28	ug/L	1	07/25/2012 13:15
2,4,5-Trichlorophenol	ND	U	2.20	5.28	ug/L	1	07/25/2012 13:15
2,4,6-Trichlorophenol	ND	U	2.14	5.28	ug/L	1	07/25/2012 13:15
2,4-Dichlorophenol	ND	U	2.18	5.28	ug/L	1	07/25/2012 13:15
2,4-Dinitrophenol	ND	U	0.705	26.4	ug/L	1	07/25/2012 13:15
2,4-Dinitrotoluene	ND	U	1.94	5.28	ug/L	1	07/25/2012 13:15
2,6-Dinitrotoluene	ND	U	1.99	5.28	ug/L	1	07/25/2012 13:15
2-Chloronaphthalene	ND	U	2.11	5.28	ug/L	1	07/25/2012 13:15
2-Chlorophenol	ND	U	2.97	5.28	ug/L	1	07/25/2012 13:15
2-Methylnaphthalene	ND	U	2.05	5.28	ug/L	1	07/25/2012 13:15
2-Methylphenol	ND	U	2.19	5.28	ug/L	1	07/25/2012 13:15
2-Nitroaniline	ND	U	1.78	5.28	ug/L	1	07/25/2012 13:15
2-Nitrophenol	ND	U	2.08	5.28	ug/L	1	07/25/2012 13:15
3 and/or 4-Methylphenol	ND	U	2.37	5.28	ug/L	1	07/25/2012 13:15
3,3'-Dichlorobenzidine	ND	U	1.85	10.6	ug/L	1	07/25/2012 13:15
3-Nitroaniline	ND	U	1.74	26.4	ug/L	1	07/25/2012 13:15
4,6-Dinitro-2-methylphenol	ND	U	0.522	26.4	ug/L	1	07/25/2012 13:15
4-Chloro-3-methylphenol	ND	U	2.09	5.28	ug/L	1	07/25/2012 13:15
4-Chloroaniline	ND	U	1.99	26.4	ug/L	1	07/25/2012 13:15
4-Chlorophenyl phenyl ether	ND	U	2.60	5.28	ug/L	1	07/25/2012 13:15
Acenaphthene	ND	U	2.18	5.28	ug/L	1	07/25/2012 13:15
Acenaphthylene	ND	U	2.11	5.28	ug/L	1	07/25/2012 13:15
Anthracene	ND	U	2.04	5.28	ug/L	1	07/25/2012 13:15
Benzo(a)anthracene	ND	U	2.07	5.28	ug/L	1	07/25/2012 13:15
Benzo(a)pyrene	ND	U	1.96	5.28	ug/L	1	07/25/2012 13:15
Benzo(b)fluoranthene	ND	U	2.07	5.28	ug/L	1	07/25/2012 13:15
Benzo(g,h,i)perylene	ND	U	2.27	5.28	ug/L	1	07/25/2012 13:15
Benzo(k)fluoranthene	ND	U	2.44	5.28	ug/L	1	07/25/2012 13:15
Benzoic acid	ND	U	2.41	5.28	ug/L	1	07/25/2012 13:15
Bis(2-Chloroethoxy)methane	ND	U	2.24	5.28	ug/L	1	07/25/2012 13:15
Bis(2-Chloroethyl)ether	ND	U	2.33	5.28	ug/L	1	07/25/2012 13:15
Bis(2-Chloroisopropyl)ether	ND	U	2.15	5.28	ug/L	1	07/25/2012 13:15
Bis(2-Ethylhexyl)phthalate	ND	U	2.06	5.28	ug/L	1	07/25/2012 13:15
4-Bromophenyl phenyl ether	ND	U	2.15	5.28	ug/L	1	07/25/2012 13:15
Butyl benzyl phthalate	ND	U	2.00	5.28	ug/L	1	07/25/2012 13:15
Chrysene	ND	U	2.32	5.28	ug/L	1	07/25/2012 13:15
Di-n-butyl phthalate	ND	U	2.02	5.28	ug/L	1	07/25/2012 13:15
Di-n-octyl phthalate	ND	U	1.54	5.28	ug/L	1	07/25/2012 13:15
Dibenz(a,h)anthracene	ND	U	2.13	5.28	ug/L	1	07/25/2012 13:15
Dibenzofuran	ND	U	2.34	5.28	ug/L	1	07/25/2012 13:15
Diethyl phthalate	ND	U	2.22	5.28	ug/L	1	07/25/2012 13:15

Print Date: 07/26/2012

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Results of 102 DPT-03

Client Sample ID: **102 DPT-03**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264006-D
Lab Project ID: 31202264

Collection Date: 07/16/2012 18:00
Received Date: 07/18/2012 16:30
Matrix: Water

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Dimethyl phthalate	ND	U	2.26	5.28	ug/L	1	07/25/2012 13:15
2,4-Dimethylphenol	ND	U J	2.33	5.28	ug/L	1	07/25/2012 13:15
Diphenylamine	ND	U	2.13	5.28	ug/L	1	07/25/2012 13:15
Fluoranthene	ND	U	2.13	5.28	ug/L	1	07/25/2012 13:15
Fluorene	ND	U	2.58	5.28	ug/L	1	07/25/2012 13:15
Hexachlorobenzene	ND	U	2.04	5.28	ug/L	1	07/25/2012 13:15
Hexachlorobutadiene	ND	U	1.61	5.28	ug/L	1	07/25/2012 13:15
Hexachlorocyclopentadiene	ND	U	0.832	10.6	ug/L	1	07/25/2012 13:15
Hexachloroethane	ND	U	1.48	5.28	ug/L	1	07/25/2012 13:15
Indeno(1,2,3-cd)pyrene	ND	U	2.13	5.28	ug/L	1	07/25/2012 13:15
Isophorone	ND	U	2.21	5.28	ug/L	1	07/25/2012 13:15
Naphthalene	ND	U	2.05	5.28	ug/L	1	07/25/2012 13:15
4-Nitroaniline	ND	U	1.77	26.4	ug/L	1	07/25/2012 13:15
Nitrobenzene	ND	U	2.31	5.28	ug/L	1	07/25/2012 13:15
4-Nitrophenol	ND	U	1.34	26.4	ug/L	1	07/25/2012 13:15
Pentachlorophenol	ND	U	1.64	26.4	ug/L	1	07/25/2012 13:15
Phenanthrene	ND	U	2.10	5.28	ug/L	1	07/25/2012 13:15
Phenol	ND	U	2.49	5.28	ug/L	1	07/25/2012 13:15
Pyrene	ND	U	2.12	5.28	ug/L	1	07/25/2012 13:15
n-Nitrosodi-n-propylamine	ND	U	2.35	5.28	ug/L	1	07/25/2012 13:15
Surrogates							
2,4,6-Tribromophenol	102			29.3-152	%	1	07/25/2012 13:15
2-Fluorobiphenyl	93.0			50.0-107	%	1	07/25/2012 13:15
2-Fluorophenol	77.0			33.1-118	%	1	07/25/2012 13:15
Nitrobenzene-d5	89.0			46.0-118	%	1	07/25/2012 13:15
Phenol-d6	87.0			49.0-120	%	1	07/25/2012 13:15
Terphenyl-d14	95.0			22.1-142	%	1	07/25/2012 13:15

Batch Information

Analytical Batch: **XMS1610**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**
Analytical Date/Time: **07/25/2012 13:15**

Prep Batch: **XXX2838**
Prep Method: **SW-846 3520C**
Prep Date/Time: **07/19/2012 16:40**
Prep Initial Wt./Vol.: **947 mL**
Prep Extract Vol: **5 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of Trip Blank (Not on COC) Water

Client Sample ID: **Trip Blank (Not on COC) Water**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264007-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 00:00
Received Date: 07/18/2012 16:30
Matrix: Water

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1	07/23/2012 12:48
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1	07/23/2012 12:48
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1	07/23/2012 12:48
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1	07/23/2012 12:48
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1	07/23/2012 12:48
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1	07/23/2012 12:48
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1	07/23/2012 12:48
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1	07/23/2012 12:48
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1	07/23/2012 12:48
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1	07/23/2012 12:48
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1	07/23/2012 12:48
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1	07/23/2012 12:48
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1	07/23/2012 12:48
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1	07/23/2012 12:48
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1	07/23/2012 12:48
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1	07/23/2012 12:48
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1	07/23/2012 12:48
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1	07/23/2012 12:48
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1	07/23/2012 12:48
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1	07/23/2012 12:48
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1	07/23/2012 12:48
2-Butanone	ND	U	0.723	25.0	ug/L	1	07/23/2012 12:48
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1	07/23/2012 12:48
2-Hexanone	ND	U	0.728	5.00	ug/L	1	07/23/2012 12:48
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1	07/23/2012 12:48
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1	07/23/2012 12:48
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1	07/23/2012 12:48
Acetone	ND	U	0.864	25.0	ug/L	1	07/23/2012 12:48
Benzene	ND	U	0.113	1.00	ug/L	1	07/23/2012 12:48
Bromobenzene	ND	U	0.110	1.00	ug/L	1	07/23/2012 12:48
Bromochloromethane	ND	U	0.211	1.00	ug/L	1	07/23/2012 12:48
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1	07/23/2012 12:48
Bromoform	ND	U	0.0974	1.00	ug/L	1	07/23/2012 12:48
Bromomethane	ND	U	0.237	1.00	ug/L	1	07/23/2012 12:48
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1	07/23/2012 12:48
Carbon disulfide	ND	U	0.106	1.00	ug/L	1	07/23/2012 12:48
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1	07/23/2012 12:48
Chlorobenzene	ND	U	0.116	1.00	ug/L	1	07/23/2012 12:48
Chloroethane	ND	U	0.311	1.00	ug/L	1	07/23/2012 12:48
Chloroform	ND	U	0.139	1.00	ug/L	1	07/23/2012 12:48
Chloromethane	ND	U	0.448	1.00	ug/L	1	07/23/2012 12:48
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1	07/23/2012 12:48
Dibromomethane	ND	U	0.168	1.00	ug/L	1	07/23/2012 12:48
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1	07/23/2012 12:48

Print Date: 07/26/2012

N.C. Certification # 481

Results of Trip Blank (Not on COC) Water

Client Sample ID: **Trip Blank (Not on COC) Water**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264007-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 00:00
Received Date: 07/18/2012 16:30
Matrix: Water

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1	07/23/2012 12:48
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1	07/23/2012 12:48
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1	07/23/2012 12:48
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1	07/23/2012 12:48
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1	07/23/2012 12:48
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1	07/23/2012 12:48
Methyl iodide	ND	U	0.115	1.00	ug/L	1	07/23/2012 12:48
Methylene chloride	**0.470**	J	0.152	5.00	ug/L	1	07/23/2012 12:48
Naphthalene	ND	U	0.0855	1.00	ug/L	1	07/23/2012 12:48
Styrene	ND	U	0.102	1.00	ug/L	1	07/23/2012 12:48
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1	07/23/2012 12:48
Toluene	ND	U	0.133	1.00	ug/L	1	07/23/2012 12:48
Trichloroethene	ND	U	0.125	1.00	ug/L	1	07/23/2012 12:48
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1	07/23/2012 12:48
Vinyl chloride	ND	U	0.124	1.00	ug/L	1	07/23/2012 12:48
Xylene (total)	ND	U	0.182	2.00	ug/L	1	07/23/2012 12:48
cis-1,2-Dichloroethene	ND	U	0.136	1.00	ug/L	1	07/23/2012 12:48
m,p-Xylene	ND	U	0.182	2.00	ug/L	1	07/23/2012 12:48
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1	07/23/2012 12:48
o-Xylene	ND	U	0.0874	1.00	ug/L	1	07/23/2012 12:48
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1	07/23/2012 12:48
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1	07/23/2012 12:48
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1	07/23/2012 12:48
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1	07/23/2012 12:48
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1	07/23/2012 12:48
Surrogates							
1,2-Dichloroethane-d4	104			64.0-140	%	1	07/23/2012 12:48
4-Bromofluorobenzene	99.0			85.0-115	%	1	07/23/2012 12:48
Toluene d8	101			82.0-117	%	1	07/23/2012 12:48

Batch Information

Analytical Batch: **VMS2401**
Analytical Method: **SW-846 8260B**
Instrument: **MSD3**
Analyst: **BWS**
Analytical Date/Time: **07/23/2012 12:48**

Prep Batch: **VXX3684**
Prep Method: **SW-846 5030B**
Prep Date/Time: **07/23/2012 09:01**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 07/26/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES

Results of Trip Blank (Not on COC) Soil

Client Sample ID: **Trip Blank (Not on COC) Soil**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264008-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 00:00
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 100.00

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	1.06	5.00	ug/Kg	1	07/20/2012 11:45
1,1,1-Trichloroethane	ND	U	0.778	5.00	ug/Kg	1	07/20/2012 11:45
1,1,2,2-Tetrachloroethane	ND	U	1.13	5.00	ug/Kg	1	07/20/2012 11:45
1,1,2-Trichloroethane	ND	U	1.04	5.00	ug/Kg	1	07/20/2012 11:45
1,1-Dichloroethane	ND	U	0.863	5.00	ug/Kg	1	07/20/2012 11:45
1,1-Dichloroethene	ND	U	0.903	5.00	ug/Kg	1	07/20/2012 11:45
1,1-Dichloropropene	ND	U	0.922	5.00	ug/Kg	1	07/20/2012 11:45
1,2,3-Trichlorobenzene	ND	U	1.39	5.00	ug/Kg	1	07/20/2012 11:45
1,2,3-Trichloropropane	ND	U	1.11	5.00	ug/Kg	1	07/20/2012 11:45
1,2,4-Trichlorobenzene	ND	U	1.19	5.00	ug/Kg	1	07/20/2012 11:45
1,2,4-Trimethylbenzene	ND	U	1.07	5.00	ug/Kg	1	07/20/2012 11:45
1,2-Dibromo-3-chloropropane	ND	U	5.81	30.0	ug/Kg	1	07/20/2012 11:45
1,2-Dibromoethane	ND	U	0.758	5.00	ug/Kg	1	07/20/2012 11:45
1,2-Dichlorobenzene	ND	U	1.29	5.00	ug/Kg	1	07/20/2012 11:45
1,2-Dichloroethane	ND	U	0.886	5.00	ug/Kg	1	07/20/2012 11:45
1,2-Dichloropropane	ND	U	0.805	5.00	ug/Kg	1	07/20/2012 11:45
1,3,5-Trimethylbenzene	ND	U	0.984	5.00	ug/Kg	1	07/20/2012 11:45
1,3-Dichlorobenzene	ND	U	1.16	5.00	ug/Kg	1	07/20/2012 11:45
1,3-Dichloropropane	ND	U	0.806	5.00	ug/Kg	1	07/20/2012 11:45
1,4-Dichlorobenzene	ND	U	1.10	5.00	ug/Kg	1	07/20/2012 11:45
2,2-Dichloropropane	ND	U	0.834	5.00	ug/Kg	1	07/20/2012 11:45
2-Butanone	ND	U	1.56	25.0	ug/Kg	1	07/20/2012 11:45
2-Chlorotoluene	ND	U	1.12	5.00	ug/Kg	1	07/20/2012 11:45
2-Hexanone	ND	U	1.95	12.5	ug/Kg	1	07/20/2012 11:45
4-Chlorotoluene	ND	U	1.11	5.00	ug/Kg	1	07/20/2012 11:45
4-Isopropyltoluene	ND	U	1.04	5.00	ug/Kg	1	07/20/2012 11:45
4-Methyl-2-pentanone	ND	U	3.21	12.5	ug/Kg	1	07/20/2012 11:45
Acetone	ND	U	1.24	50.0	ug/Kg	1	07/20/2012 11:45
Benzene	ND	U	0.893	5.00	ug/Kg	1	07/20/2012 11:45
Bromobenzene	ND	U	0.986	5.00	ug/Kg	1	07/20/2012 11:45
Bromochloromethane	ND	U	0.873	5.00	ug/Kg	1	07/20/2012 11:45
Bromodichloromethane	ND	U	0.813	5.00	ug/Kg	1	07/20/2012 11:45
Bromoform	ND	U	0.669	5.00	ug/Kg	1	07/20/2012 11:45
Bromomethane	ND	U	1.76	5.00	ug/Kg	1	07/20/2012 11:45
n-Butylbenzene	ND	U	1.08	5.00	ug/Kg	1	07/20/2012 11:45
Carbon disulfide	ND	U	0.864	5.00	ug/Kg	1	07/20/2012 11:45
Carbon tetrachloride	ND	U	0.870	5.00	ug/Kg	1	07/20/2012 11:45
Chlorobenzene	ND	U	0.774	5.00	ug/Kg	1	07/20/2012 11:45
Chloroethane	ND	U	0.460	5.00	ug/Kg	1	07/20/2012 11:45
Chloroform	ND	U	0.812	5.00	ug/Kg	1	07/20/2012 11:45
Chloromethane	ND	U	0.725	5.00	ug/Kg	1	07/20/2012 11:45
Dibromochloromethane	ND	U	0.847	5.00	ug/Kg	1	07/20/2012 11:45
Dibromomethane	ND	U	0.812	5.00	ug/Kg	1	07/20/2012 11:45
Dichlorodifluoromethane	ND	U	0.727	5.00	ug/Kg	1	07/20/2012 11:45

Print Date: 07/26/2012

N.C. Certification # 481

Results of Trip Blank (Not on COC) Soil

Client Sample ID: **Trip Blank (Not on COC) Soil**
Client Project ID: **NCDOT Parcel 102**
Lab Sample ID: 31202264008-A
Lab Project ID: 31202264

Collection Date: 07/16/2012 00:00
Received Date: 07/18/2012 16:30
Matrix: Soil-Solid as dry weight
Solids (%): 100.00

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	U	0.861	5.00	ug/Kg	1	07/20/2012 11:45
trans-1,3-Dichloropropene	ND	U	0.896	5.00	ug/Kg	1	07/20/2012 11:45
Diisopropyl Ether	ND	U	0.898	5.00	ug/Kg	1	07/20/2012 11:45
Ethyl Benzene	ND	U	0.827	5.00	ug/Kg	1	07/20/2012 11:45
Hexachlorobutadiene	ND	U	1.37	5.00	ug/Kg	1	07/20/2012 11:45
Isopropylbenzene (Cumene)	ND	U	0.963	5.00	ug/Kg	1	07/20/2012 11:45
Methyl iodide	ND	U	0.846	5.00	ug/Kg	1	07/20/2012 11:45
Methylene chloride	**3.99**	J	0.698	20.0	ug/Kg	1	07/20/2012 11:45
Naphthalene	ND	U	1.21	5.00	ug/Kg	1	07/20/2012 11:45
Styrene	ND	U	0.986	5.00	ug/Kg	1	07/20/2012 11:45
Tetrachloroethene	ND	U	0.752	5.00	ug/Kg	1	07/20/2012 11:45
Toluene	ND	U	0.810	5.00	ug/Kg	1	07/20/2012 11:45
Trichloroethene	ND	U	0.837	5.00	ug/Kg	1	07/20/2012 11:45
Trichlorofluoromethane	ND	U	0.754	5.00	ug/Kg	1	07/20/2012 11:45
Vinyl chloride	ND	U	0.736	5.00	ug/Kg	1	07/20/2012 11:45
Xylene (total)	ND	U	1.77	10.0	ug/Kg	1	07/20/2012 11:45
cis-1,2-Dichloroethene	ND	U	0.775	5.00	ug/Kg	1	07/20/2012 11:45
m,p-Xylene	ND	U	1.77	10.0	ug/Kg	1	07/20/2012 11:45
n-Propylbenzene	ND	U	0.975	5.00	ug/Kg	1	07/20/2012 11:45
o-Xylene	ND	U	1.01	5.00	ug/Kg	1	07/20/2012 11:45
sec-Butylbenzene	ND	U	1.04	5.00	ug/Kg	1	07/20/2012 11:45
tert-Butyl methyl ether (MTBE)	ND	U	0.852	5.00	ug/Kg	1	07/20/2012 11:45
tert-Butylbenzene	ND	U	0.906	5.00	ug/Kg	1	07/20/2012 11:45
trans-1,2-Dichloroethene	ND	U	0.861	5.00	ug/Kg	1	07/20/2012 11:45
trans-1,4-Dichloro-2-butene	ND	U	5.41	25.0	ug/Kg	1	07/20/2012 11:45
Surrogates							
1,2-Dichloroethane-d4	116			55.0-173	%	1	07/20/2012 11:45
4-Bromofluorobenzene	100			23.0-141	%	1	07/20/2012 11:45
Toluene d8	100			57.0-134	%	1	07/20/2012 11:45

Batch Information

Analytical Batch: **VMS2395**
Analytical Method: **SW-846 8260B**
Instrument: **MSD9**
Analyst: **DVO**
Analytical Date/Time: **07/20/2012 11:45**

Prep Batch: **VXX3672**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **07/19/2012 13:33**
Prep Initial Wt./Vol.: **5 g**
Prep Extract Vol: **5 mL**

Print Date: 07/26/2012

N.C. Certification # 481

Batch Summary

Analytical Method: SW-846 8260B

Prep Method: SW-846 5035 SL
Prep Batch: VXX3672
Prep Date: 07/20/2012 08:18

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS-S for HBN 25851 [VXX/3672]	81462	07/20/2012 09:28	VMS2395	MSD9	DVO
LCSD-S for HBN 25851 [VXX/3672	81463	07/20/2012 09:55	VMS2395	MSD9	DVO
MB-S for HBN 25851 [VXX/3672]	81464	07/20/2012 11:16	VMS2395	MSD9	DVO
Trip Blank (Not on COC) Soil	31202264008	07/20/2012 11:45	VMS2395	MSD9	DVO
102 DPT-01 (2-3ft)	31202264001	07/20/2012 14:57	VMS2395	MSD9	DVO
102 DPT-01 (4-5ft)	31202264002	07/20/2012 15:24	VMS2395	MSD9	DVO
102 DPT-02 (2-3ft)	31202264003	07/20/2012 15:53	VMS2395	MSD9	DVO
102 DPT-02 (3-4ft)	31202264004	07/20/2012 16:21	VMS2395	MSD9	DVO
UST-1 C(81140MS)	81756	07/20/2012 20:01	VMS2395	MSD9	DVO

Method Blank

Blank ID: MB-S for HBN 25851 [VXX/3672]
Blank Lab ID: 81464
QC for Samples:
31202264001, 31202264002, 31202264003, 31202264004, 31202264008

Matrix: Soil-Solid as dry weight

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Dichlorodifluoromethane	ND	U	0.727	5.00	ug/Kg	1
Chloromethane	ND	U	0.725	5.00	ug/Kg	1
Vinyl chloride	ND	U	0.736	5.00	ug/Kg	1
Bromomethane	ND	U	1.76	5.00	ug/Kg	1
Chloroethane	ND	U	0.460	5.00	ug/Kg	1
Trichlorofluoromethane	ND	U	0.754	5.00	ug/Kg	1
1,1-Dichloroethene	ND	U	0.903	5.00	ug/Kg	1
Acetone	ND	U	1.24	50.0	ug/Kg	1
Methylene chloride	ND	U	0.698	20.0	ug/Kg	1
trans-1,2-Dichloroethene	ND	U	0.861	5.00	ug/Kg	1
tert-Butyl methyl ether (MTBE)	ND	U	0.852	5.00	ug/Kg	1
1,1-Dichloroethane	ND	U	0.863	5.00	ug/Kg	1
Diisopropyl Ether	ND	U	0.898	5.00	ug/Kg	1
2,2-Dichloropropane	ND	U	0.834	5.00	ug/Kg	1
cis-1,2-Dichloroethene	ND	U	0.775	5.00	ug/Kg	1
2-Butanone	ND	U	1.56	25.0	ug/Kg	1
Bromochloromethane	ND	U	0.873	5.00	ug/Kg	1
Chloroform	ND	U	0.812	5.00	ug/Kg	1
1,1,1-Trichloroethane	ND	U	0.778	5.00	ug/Kg	1
Carbon tetrachloride	ND	U	0.870	5.00	ug/Kg	1
1,1-Dichloropropene	ND	U	0.922	5.00	ug/Kg	1
Benzene	ND	U	0.893	5.00	ug/Kg	1
1,2-Dichloroethane	ND	U	0.886	5.00	ug/Kg	1
Trichloroethene	ND	U	0.837	5.00	ug/Kg	1
1,2-Dichloropropane	ND	U	0.805	5.00	ug/Kg	1
Dibromomethane	ND	U	0.812	5.00	ug/Kg	1
Bromodichloromethane	ND	U	0.813	5.00	ug/Kg	1
cis-1,3-Dichloropropene	ND	U	0.861	5.00	ug/Kg	1
4-Methyl-2-pentanone	ND	U	3.21	12.5	ug/Kg	1
Toluene	ND	U	0.810	5.00	ug/Kg	1
Methyl iodide	ND	U	0.846	5.00	ug/Kg	1
trans-1,3-Dichloropropene	ND	U	0.896	5.00	ug/Kg	1
Carbon disulfide	ND	U	0.864	5.00	ug/Kg	1
1,1,2-Trichloroethane	ND	U	1.04	5.00	ug/Kg	1
Tetrachloroethene	ND	U	0.752	5.00	ug/Kg	1
1,3-Dichloropropane	ND	U	0.806	5.00	ug/Kg	1
2-Hexanone	ND	U	1.95	12.5	ug/Kg	1
Dibromochloromethane	ND	U	0.847	5.00	ug/Kg	1
1,2-Dibromoethane	ND	U	0.758	5.00	ug/Kg	1
Chlorobenzene	ND	U	0.774	5.00	ug/Kg	1
1,1,1,2-Tetrachloroethane	ND	U	1.06	5.00	ug/Kg	1
Bromoform	ND	U	0.669	5.00	ug/Kg	1

Print Date: 07/26/2012

N.C. Certification # 481

Method Blank

Blank ID: MB-S for HBN 25851 [VXX/3672]
Blank Lab ID: 81464
QC for Samples:
31202264001, 31202264002, 31202264003, 31202264004, 31202264008

Matrix: Soil-Solid as dry weight

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Bromobenzene	ND	U	0.986	5.00	ug/Kg	1
1,1,2,2-Tetrachloroethane	ND	U	1.13	5.00	ug/Kg	1
1,2,3-Trichloropropane	ND	U	1.11	5.00	ug/Kg	1
Ethyl Benzene	ND	U	0.827	5.00	ug/Kg	1
m,p-Xylene	ND	U	1.77	10.0	ug/Kg	1
Styrene	ND	U	0.986	5.00	ug/Kg	1
o-Xylene	ND	U	1.01	5.00	ug/Kg	1
Xylene (total)	ND	U	1.77	10.0	ug/Kg	1
Isopropylbenzene (Cumene)	ND	U	0.963	5.00	ug/Kg	1
n-Propylbenzene	ND	U	0.975	5.00	ug/Kg	1
2-Chlorotoluene	ND	U	1.12	5.00	ug/Kg	1
4-Chlorotoluene	ND	U	1.11	5.00	ug/Kg	1
1,3,5-Trimethylbenzene	ND	U	0.984	5.00	ug/Kg	1
tert-Butylbenzene	ND	U	0.906	5.00	ug/Kg	1
1,2,4-Trimethylbenzene	ND	U	1.07	5.00	ug/Kg	1
sec-Butylbenzene	ND	U	1.04	5.00	ug/Kg	1
1,3-Dichlorobenzene	ND	U	1.16	5.00	ug/Kg	1
4-Isopropyltoluene	ND	U	1.04	5.00	ug/Kg	1
1,4-Dichlorobenzene	ND	U	1.10	5.00	ug/Kg	1
1,2-Dichlorobenzene	ND	U	1.29	5.00	ug/Kg	1
n-Butylbenzene	ND	U	1.08	5.00	ug/Kg	1
1,2-Dibromo-3-chloropropane	ND	U	5.81	30.0	ug/Kg	1
1,2,4-Trichlorobenzene	ND	U	1.19	5.00	ug/Kg	1
Hexachlorobutadiene	ND	U	1.37	5.00	ug/Kg	1
Naphthalene	ND	U	1.21	5.00	ug/Kg	1
trans-1,4-Dichloro-2-butene	ND	U	5.41	25.0	ug/Kg	1
1,2,3-Trichlorobenzene	ND	U	1.39	5.00	ug/Kg	1
Surrogates						
1,2-Dichloroethane-d4	110			55.0-173	%	1
Toluene d8	101			57.0-134	%	1
4-Bromofluorobenzene	100			23.0-141	%	1

Batch Information

Analytical Batch: VMS2395
Analytical Method: SW-846 8260B
Instrument: MSD9
Analyst: DVO
Analytical Date/Time: 7/20/2012 11:16:00AM

Prep Batch: VXX3672
Prep Method: SW-846 5035 SL
Prep Date/Time: 7/20/2012 8:18:43AM
Prep Initial Wt./Vol.: 5 g
Prep Extract Vol: 5 mL

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 25851 [VXX/3672]
Blank Spike Lab ID: 81462
Date Analyzed: 07/20/2012 09:28

Spike Duplicate ID: LCSD-S for HBN 25851 [VXX/3672
Spike Duplicate Lab ID: 81463
Matrix: Soil-Solid as dry weight

QC for Samples: 31202264001, 31202264002, 31202264003, 31202264004, 31202264008

Results by SW-846 8260B

	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Dichlorodifluoromethane	30.0	29.0	97	30.0	28.2	94	52.0-133	2.8	30.00
Chloromethane	30.0	28.0	93	30.0	27.9	93	64.0-126	0.36	30.00
Vinyl chloride	30.0	29.1	97	30.0	28.4	95	69.0-120	2.4	30.00
Bromomethane	30.0	26.9	90	30.0	30.3	101	41.0-160	12	30.00
Chloroethane	30.0	31.9	106	30.0	31.1	104	69.0-126	2.5	30.00
Trichlorofluoromethane	30.0	30.0	100	30.0	28.5	95	72.0-123	5.1	30.00
1,1-Dichloroethene	30.0	28.3	94	30.0	27.0	90	78.0-113	4.7	30.00
Acetone	75.0	85.1	113	75.0	93.1	124	0.00-243	9.0	30.00
Methylene chloride	30.0	30.8	103	30.0	28.3	94	40.0-156	8.5	30.00
trans-1,2-Dichloroethene	30.0	29.4	98	30.0	27.7	92	78.0-111	6.0	30.00
tert-Butyl methyl ether (MTBE)	30.0	29.6	99	30.0	29.5	98	68.0-138	0.34	30.00
1,1-Dichloroethane	30.0	29.1	97	30.0	27.6	92	71.0-121	5.3	30.00
Diisopropyl Ether	30.0	29.0	97	30.0	27.8	93	60.0-141	4.2	30.00
2,2-Dichloropropane	30.0	30.0	100	30.0	27.4	91	79.0-127	9.1	30.00
cis-1,2-Dichloroethene	30.0	30.8	103	30.0	27.0	90	80.0-114	13	30.00
2-Butanone	75.0	83.3	111	75.0	88.9	119	31.0-189	6.5	30.00
Bromochloromethane	30.0	31.7	106	30.0	29.0	97	81.0-115	8.9	30.00
Chloroform	30.0	30.5	102	30.0	28.3	94	76.0-114	7.5	30.00
1,1,1-Trichloroethane	30.0	29.4	98	30.0	27.8	93	79.0-117	5.6	30.00
Carbon tetrachloride	30.0	29.4	98	30.0	27.0	90	82.0-119	8.5	30.00
1,1-Dichloropropene	30.0	28.8	96	30.0	27.1	90	82.0-114	6.1	30.00
Benzene	30.0	28.9	96	30.0	28.1	94	82.0-113	2.8	30.00
1,2-Dichloroethane	30.0	29.9	100	30.0	30.6	102	72.0-126	2.3	30.00
Trichloroethene	30.0	27.7	92	30.0	28.9	96	82.0-108	4.2	30.00
1,2-Dichloropropane	30.0	29.1	97	30.0	30.5	102	78.0-116	4.7	30.00
Dibromomethane	30.0	30.0	100	30.0	31.4	105	79.0-125	4.6	30.00
Bromodichloromethane	30.0	28.5	95	30.0	30.0	100	79.0-122	5.1	30.00
cis-1,3-Dichloropropene	30.0	30.0	100	30.0	31.9	106	75.0-127	6.1	30.00
4-Methyl-2-pentanone	75.0	80.0	107	75.0	92.5	123	57.0-159	14	30.00
Toluene	30.0	29.3	98	30.0	29.5	98	83.0-111	0.68	30.00
Methyl iodide	30.0	25.4	85	30.0	24.5	82	63.0-137	3.6	30.00
trans-1,3-Dichloropropene	30.0	29.1	97	30.0	30.2	101	75.0-134	3.7	30.00
Carbon disulfide	30.0	24.9	83	30.0	23.7	79	72.0-116	4.9	30.00
1,1,2-Trichloroethane	30.0	29.7	99	30.0	31.5	105	73.0-121	5.9	30.00

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 25851 [VXX/3672]
Blank Spike Lab ID: 81462
Date Analyzed: 07/20/2012 09:28

Spike Duplicate ID: LCSD-S for HBN 25851 [VXX/3672
Spike Duplicate Lab ID: 81463
Matrix: Soil-Solid as dry weight

QC for Samples: 31202264001, 31202264002, 31202264003, 31202264004, 31202264008

Results by SW-846 8260B

	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Tetrachloroethene	30.0	27.9	93	30.0	28.0	93	60.0-118	0.36	30.00
1,3-Dichloropropane	30.0	29.1	97	30.0	30.7	102	76.0-121	5.4	30.00
2-Hexanone	75.0	78.9	105	75.0	89.8	120	41.0-171	13	30.00
Dibromochloromethane	30.0	29.3	98	30.0	28.9	96	77.0-126	1.4	30.00
1,2-Dibromoethane	30.0	29.5	98	30.0	30.7	102	76.0-125	4.0	30.00
Chlorobenzene	30.0	28.3	94	30.0	29.0	97	78.0-109	2.4	30.00
1,1,1,2-Tetrachloroethane	30.0	28.9	96	30.0	28.2	94	81.0-117	2.5	30.00
Bromoform	30.0	29.5	98	30.0	30.0	100	72.0-134	1.7	30.00
Bromobenzene	30.0	29.1	97	30.0	28.7	96	76.0-113	1.4	30.00
1,1,2,2-Tetrachloroethane	30.0	32.2	107	30.0	35.3	118	76.0-129	9.2	30.00
1,2,3-Trichloropropane	30.0	30.8	103	30.0	34.0	113	70.0-145	9.9	30.00
Ethyl Benzene	30.0	26.8	89	30.0	26.7	89	72.0-115	0.37	30.00
m,p-Xylene	60.0	54.2	90	60.0	55.2	92	73.0-114	1.8	30.00
Styrene	30.0	27.5	92	30.0	27.5	92	74.0-114	0.0	30.00
o-Xylene	30.0	27.3	91	30.0	28.0	93	74.0-113	2.5	30.00
Isopropylbenzene (Cumene)	30.0	27.6	92	30.0	27.6	92	72.0-115	0.0	30.00
n-Propylbenzene	30.0	28.0	93	30.0	29.3	98	71.0-117	4.5	30.00
2-Chlorotoluene	30.0	27.7	92	30.0	29.0	97	76.0-111	4.6	30.00
4-Chlorotoluene	30.0	27.0	90	30.0	28.8	96	75.0-113	6.5	30.00
1,3,5-Trimethylbenzene	30.0	27.4	91	30.0	28.8	96	72.0-115	5.0	30.00
tert-Butylbenzene	30.0	27.0	90	30.0	28.4	95	74.0-112	5.1	30.00
1,2,4-Trimethylbenzene	30.0	27.7	92	30.0	29.6	99	73.0-114	6.6	30.00
sec-Butylbenzene	30.0	27.1	90	30.0	28.6	95	72.0-115	5.4	30.00
1,3-Dichlorobenzene	30.0	27.9	93	30.0	29.2	97	75.0-110	4.6	30.00
4-Isopropyltoluene	30.0	27.3	91	30.0	28.8	96	73.0-114	5.3	30.00
1,4-Dichlorobenzene	30.0	28.5	95	30.0	29.6	99	76.0-110	3.8	30.00
1,2-Dichlorobenzene	30.0	28.3	94	30.0	29.7	99	77.0-109	4.8	30.00
n-Butylbenzene	30.0	27.8	93	30.0	29.2	97	72.0-118	4.9	30.00
1,2-Dibromo-3-chloropropane	180	181	101	180	218	121	54.0-166	19	30.00
1,2,4-Trichlorobenzene	30.0	26.0	87	30.0	28.9	96	76.0-115	11	30.00
Hexachlorobutadiene	30.0	26.3	88	30.0	28.2	94	70.0-111	7.0	30.00
Naphthalene	30.0	28.9	96	30.0	32.8	109	71.0-129	13	30.00
trans-1,4-Dichloro-2-butene	150	151	100	150	165	110	62.0-164	8.9	30.00
1,2,3-Trichlorobenzene	30.0	28.1	94	30.0	29.9	100	78.0-115	6.2	30.00

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 25851 [VXX/3672]
Blank Spike Lab ID: 81462
Date Analyzed: 07/20/2012 09:28

Spike Duplicate ID: LCSD-S for HBN 25851 [VXX/3672
Spike Duplicate Lab ID: 81463
Matrix: Soil-Solid as dry weight

QC for Samples: 31202264001, 31202264002, 31202264003, 31202264004, 31202264008

Results by SW-846 8260B

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

Batch Information

Analytical Batch: VMS2395
Analytical Method: SW-846 8260B
Instrument: MSD9
Analyst: DVO

Prep Batch: VXX3672
Prep Method: SW-846 5035 SL
Prep Date/Time: 07/20/2012 08:18
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: VXX3684
Prep Date: 07/23/2012 08:53

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCSD for HBN 25955 [VXX/3684]	81690	07/23/2012 10:42	VMS2401	MSD3	BWS
LCS for HBN 25955 [VXX/3684]	81689	07/23/2012 11:32	VMS2401	MSD3	BWS
MB for HBN 25955 [VXX/3684]	81691	07/23/2012 12:23	VMS2401	MSD3	BWS
Trip Blank (Not on COC) Water	31202264007	07/23/2012 12:48	VMS2401	MSD3	BWS
102 DPT-03	31202264006	07/23/2012 14:29	VMS2401	MSD3	BWS

Method Blank

Blank ID: MB for HBN 25955 [VXX/3684]
Blank Lab ID: 81691
QC for Samples:
31202264006, 31202264007

Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Dichlorodifluoromethane	ND	U	0.171	5.00	ug/L	1
Chloromethane	ND	U	0.448	1.00	ug/L	1
Vinyl chloride	ND	U	0.124	1.00	ug/L	1
Bromomethane	ND	U	0.237	1.00	ug/L	1
Chloroethane	ND	U	0.311	1.00	ug/L	1
Trichlorofluoromethane	ND	U	0.137	1.00	ug/L	1
1,1-Dichloroethene	ND	U	0.212	1.00	ug/L	1
Acetone	ND	U	0.864	25.0	ug/L	1
Methylene chloride	ND	U	0.152	5.00	ug/L	1
trans-1,2-Dichloroethene	ND	U	0.223	1.00	ug/L	1
tert-Butyl methyl ether (MTBE)	ND	U	0.144	1.00	ug/L	1
1,1-Dichloroethane	ND	U	0.165	1.00	ug/L	1
Diisopropyl Ether	ND	U	0.294	1.00	ug/L	1
2,2-Dichloropropane	ND	U	0.393	1.00	ug/L	1
cis-1,2-Dichloroethene	ND	U	0.136	1.00	ug/L	1
2-Butanone	ND	U	0.723	25.0	ug/L	1
Bromochloromethane	ND	U	0.211	1.00	ug/L	1
Chloroform	ND	U	0.139	1.00	ug/L	1
1,1,1-Trichloroethane	ND	U	0.123	1.00	ug/L	1
Carbon tetrachloride	ND	U	0.101	1.00	ug/L	1
1,1-Dichloropropene	ND	U	0.0863	1.00	ug/L	1
Benzene	ND	U	0.113	1.00	ug/L	1
1,2-Dichloroethane	ND	U	0.167	1.00	ug/L	1
Trichloroethene	ND	U	0.125	1.00	ug/L	1
1,2-Dichloropropane	ND	U	0.163	1.00	ug/L	1
Dibromomethane	ND	U	0.168	1.00	ug/L	1
Bromodichloromethane	ND	U	0.110	1.00	ug/L	1
cis-1,3-Dichloropropene	ND	U	0.0767	1.00	ug/L	1
4-Methyl-2-pentanone	ND	U	0.558	5.00	ug/L	1
Toluene	ND	U	0.133	1.00	ug/L	1
Methyl iodide	ND	U	0.115	1.00	ug/L	1
trans-1,3-Dichloropropene	ND	U	0.0862	1.00	ug/L	1
Carbon disulfide	ND	U	0.106	1.00	ug/L	1
1,1,2-Trichloroethane	ND	U	0.126	1.00	ug/L	1
Tetrachloroethene	ND	U	0.155	1.00	ug/L	1
1,3-Dichloropropane	ND	U	0.130	1.00	ug/L	1
2-Hexanone	ND	U	0.728	5.00	ug/L	1
Dibromochloromethane	ND	U	0.134	1.00	ug/L	1
1,2-Dibromoethane	ND	U	0.120	1.00	ug/L	1
Chlorobenzene	ND	U	0.116	1.00	ug/L	1
1,1,1,2-Tetrachloroethane	ND	U	0.104	1.00	ug/L	1
Bromoform	ND	U	0.0974	1.00	ug/L	1

Print Date: 07/26/2012

N.C. Certification # 481

Method Blank

Blank ID: MB for HBN 25955 [VXX/3684]
Blank Lab ID: 81691
QC for Samples:
31202264006, 31202264007

Matrix: Water

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Bromobenzene	ND	U	0.110	1.00	ug/L	1
1,1,2,2-Tetrachloroethane	ND	U	0.156	1.00	ug/L	1
1,2,3-Trichloropropane	ND	U	0.212	1.00	ug/L	1
Ethyl Benzene	ND	U	0.0877	1.00	ug/L	1
m,p-Xylene	ND	U	0.182	2.00	ug/L	1
Styrene	ND	U	0.102	1.00	ug/L	1
o-Xylene	ND	U	0.0874	1.00	ug/L	1
Xylene (total)	ND	U	0.182	2.00	ug/L	1
Isopropylbenzene (Cumene)	ND	U	0.0869	1.00	ug/L	1
n-Propylbenzene	ND	U	0.113	1.00	ug/L	1
2-Chlorotoluene	ND	U	0.113	1.00	ug/L	1
4-Chlorotoluene	ND	U	0.125	1.00	ug/L	1
1,3,5-Trimethylbenzene	ND	U	0.113	1.00	ug/L	1
tert-Butylbenzene	ND	U	0.0855	1.00	ug/L	1
1,2,4-Trimethylbenzene	ND	U	0.0961	1.00	ug/L	1
sec-Butylbenzene	ND	U	0.112	1.00	ug/L	1
1,3-Dichlorobenzene	ND	U	0.103	1.00	ug/L	1
4-Isopropyltoluene	ND	U	0.0769	1.00	ug/L	1
1,4-Dichlorobenzene	ND	U	0.130	1.00	ug/L	1
1,2-Dichlorobenzene	ND	U	0.137	1.00	ug/L	1
n-Butylbenzene	ND	U	0.0769	1.00	ug/L	1
1,2-Dibromo-3-chloropropane	ND	U	0.748	5.00	ug/L	1
1,2,4-Trichlorobenzene	ND	U	0.0913	1.00	ug/L	1
Hexachlorobutadiene	ND	U	0.0792	1.00	ug/L	1
Naphthalene	ND	U	0.0855	1.00	ug/L	1
trans-1,4-Dichloro-2-butene	ND	U	0.414	5.00	ug/L	1
1,2,3-Trichlorobenzene	ND	U	0.110	1.00	ug/L	1
Surrogates						
1,2-Dichloroethane-d4	102			64.0-140	%	1
Toluene d8	99.0			82.0-117	%	1
4-Bromofluorobenzene	96.0			85.0-115	%	1

Batch Information

Analytical Batch: VMS2401
Analytical Method: SW-846 8260B
Instrument: MSD3
Analyst: BWS
Analytical Date/Time: 7/23/2012 12:23:00PM

Prep Batch: VXX3684
Prep Method: SW-846 5030B
Prep Date/Time: 7/23/2012 8:53:27AM
Prep Initial Wt./Vol.: 40 mL
Prep Extract Vol: 40 mL

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 25955 [VXX/3684]
Blank Spike Lab ID: 81689
Date Analyzed: 07/23/2012 11:32

Spike Duplicate ID: LCSD for HBN 25955 [VXX/3684]
Spike Duplicate Lab ID: 81690
Date Analyzed: 07/23/2012 10:42
Matrix: Water

QC for Samples: 31202264006, 31202264007

Results by SW-846 8260B

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Dichlorodifluoromethane	5.00	3.40	68	5.00	4.89	98	33.0-170	36*	30.00
Chloromethane	5.00	3.89	78	5.00	5.72	114	57.0-132	38*	30.00
Vinyl chloride	5.00	4.03	81	5.00	5.40	108	59.0-138	29	30.00
Bromomethane	5.00	8.75	175*	5.00	9.99	200*	51.0-134	13	30.00
Chloroethane	5.00	3.73	75	5.00	6.17	123	64.0-145	49*	30.00
Trichlorofluoromethane	5.00	3.86	77	5.00	5.22	104	64.0-133	30	30.00
1,1-Dichloroethene	5.00	4.94	99	5.00	5.45	109	71.0-128	9.8	30.00
Acetone	25.0	23.8	95	25.0	25.9	103	52.0-140	8.5	30.00
Methylene chloride	5.00	4.51	90	5.00	5.44	109	70.0-113	19	30.00
trans-1,2-Dichloroethene	5.00	4.99	100	5.00	5.66	113	57.0-138	13	30.00
tert-Butyl methyl ether (MTBE)	5.00	4.61	92	5.00	5.35	107	47.0-142	15	30.00
1,1-Dichloroethane	5.00	4.56	91	5.00	5.36	107	68.0-133	16	30.00
Diisopropyl Ether	5.00	4.38	88	5.00	5.03	101	66.0-132	14	30.00
2,2-Dichloropropane	5.00	5.11	102	5.00	5.88	118	74.0-125	14	30.00
cis-1,2-Dichloroethene	5.00	4.63	93	5.00	5.61	112	73.0-128	19	30.00
2-Butanone	25.0	21.5	86	25.0	25.1	100	58.0-134	15	30.00
Bromochloromethane	5.00	4.96	99	5.00	5.09	102	73.0-128	2.6	30.00
Chloroform	5.00	4.60	92	5.00	5.12	102	74.0-124	11	30.00
1,1,1-Trichloroethane	5.00	4.86	97	5.00	5.43	109	76.0-119	11	30.00
Carbon tetrachloride	5.00	4.82	96	5.00	5.55	111	75.0-120	14	30.00
1,1-Dichloropropene	5.00	4.59	92	5.00	5.10	102	76.0-124	11	30.00
Benzene	5.00	4.55	91	5.00	5.23	105	76.0-124	14	30.00
1,2-Dichloroethane	5.00	4.21	84	5.00	5.35	107	76.0-119	24	30.00
Trichloroethene	5.00	4.56	91	5.00	5.31	106	74.0-121	15	30.00
1,2-Dichloropropane	5.00	4.39	88	5.00	4.91	98	74.0-124	11	30.00
Dibromomethane	5.00	4.17	83	5.00	5.23	105	71.0-128	23	30.00
Bromodichloromethane	5.00	4.57	91	5.00	5.04	101	72.0-120	9.8	30.00
cis-1,3-Dichloropropene	5.00	4.79	96	5.00	5.43	109	73.0-122	13	30.00
4-Methyl-2-pentanone	25.0	20.9	83	25.0	24.7	99	65.0-124	17	30.00
Toluene	5.00	4.58	92	5.00	5.14	103	75.0-123	12	30.00
Methyl iodide	5.00	5.41	108	5.00	6.15	123	55.0-123	13	30.00
trans-1,3-Dichloropropene	5.00	4.62	92	5.00	5.31	106	70.0-125	14	30.00
Carbon disulfide	5.00	4.75	95	5.00	5.30	106	65.0-132	11	30.00
1,1,2-Trichloroethane	5.00	4.55	91	5.00	4.99	100	76.0-121	9.2	30.00

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 25955 [VXX/3684]
Blank Spike Lab ID: 81689
Date Analyzed: 07/23/2012 11:32

Spike Duplicate ID: LCSD for HBN 25955 [VXX/3684]
Spike Duplicate Lab ID: 81690
Date Analyzed: 07/23/2012 10:42
Matrix: Water

QC for Samples: 31202264006, 31202264007

Results by SW-846 8260B

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Tetrachloroethene	5.00	4.94	99	5.00	5.40	108	59.0-112	8.9	30.00
1,3-Dichloropropane	5.00	4.22	84	5.00	5.09	102	74.0-120	19	30.00
2-Hexanone	25.0	20.2	81	25.0	23.8	95	56.0-133	16	30.00
Dibromochloromethane	5.00	4.81	96	5.00	5.45	109	67.0-122	12	30.00
1,2-Dibromoethane	5.00	4.23	85	5.00	5.02	100	74.0-119	17	30.00
Chlorobenzene	5.00	4.22	84	5.00	5.08	102	74.0-120	18	30.00
1,1,1,2-Tetrachloroethane	5.00	4.59	92	5.00	5.28	106	73.0-119	14	30.00
Bromoform	5.00	5.00	100	5.00	5.83	117	62.0-127	15	30.00
Bromobenzene	5.00	4.38	88	5.00	4.95	99	75.0-120	12	30.00
1,1,2,2-Tetrachloroethane	5.00	4.31	86	5.00	5.15	103	68.0-129	18	30.00
1,2,3-Trichloropropane	5.00	4.70	94	5.00	5.47	109	67.0-126	15	30.00
Ethyl Benzene	5.00	4.34	87	5.00	5.03	101	76.0-123	15	30.00
m,p-Xylene	10.0	9.26	93	10.0	10.1	101	76.0-124	8.7	30.00
Styrene	5.00	4.25	85	5.00	4.83	97	76.0-121	13	30.00
o-Xylene	5.00	4.20	84	5.00	5.09	102	75.0-124	19	30.00
Isopropylbenzene (Cumene)	5.00	4.64	93	5.00	5.12	102	77.0-120	9.8	30.00
n-Propylbenzene	5.00	4.49	90	5.00	4.90	98	77.0-123	8.7	30.00
2-Chlorotoluene	5.00	4.37	87	5.00	4.87	97	74.0-127	11	30.00
4-Chlorotoluene	5.00	4.44	89	5.00	5.05	101	77.0-123	13	30.00
1,3,5-Trimethylbenzene	5.00	4.57	91	5.00	5.10	102	76.0-122	11	30.00
tert-Butylbenzene	5.00	4.56	91	5.00	4.87	97	67.0-122	6.6	30.00
1,2,4-Trimethylbenzene	5.00	4.66	93	5.00	5.18	104	76.0-124	11	30.00
sec-Butylbenzene	5.00	4.69	94	5.00	5.07	101	78.0-121	7.8	30.00
1,3-Dichlorobenzene	5.00	4.23	85	5.00	4.84	97	75.0-120	13	30.00
4-Isopropyltoluene	5.00	4.56	91	5.00	5.03	101	77.0-120	9.8	30.00
1,4-Dichlorobenzene	5.00	4.16	83	5.00	4.94	99	70.0-125	17	30.00
1,2-Dichlorobenzene	5.00	4.32	86	5.00	5.14	103	76.0-118	17	30.00
n-Butylbenzene	5.00	4.71	94	5.00	4.97	99	78.0-118	5.4	30.00
1,2-Dibromo-3-chloropropane	30.0	24.8	83	30.0	29.0	97	62.0-130	16	30.00
1,2,4-Trichlorobenzene	5.00	4.56	91	5.00	5.06	101	72.0-119	10	30.00
Hexachlorobutadiene	5.00	4.71	94	5.00	5.27	105	69.0-121	11	30.00
Naphthalene	5.00	4.50	90	5.00	5.30	106	67.0-122	16	30.00
trans-1,4-Dichloro-2-butene	25.0	23.6	95	25.0	27.1	108	61.0-132	14	30.00
1,2,3-Trichlorobenzene	5.00	4.57	91	5.00	5.06	101	68.0-123	10	30.00

Blank Spike Summary

Blank Spike ID: LCS for HBN 25955 [VXX/3684]
Blank Spike Lab ID: 81689
Date Analyzed: 07/23/2012 11:32

Spike Duplicate ID: LCSD for HBN 25955 [VXX/3684]
Spike Duplicate Lab ID: 81690
Date Analyzed: 07/23/2012 10:42
Matrix: Water

QC for Samples: 31202264006, 31202264007

Results by SW-846 8260B

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Surrogates									
1,2-Dichloroethane-d4			101			104	64.0-140		
Toluene d8			101			101	82.0-117		
4-Bromofluorobenzene			100			99	85.0-115		

Batch Information

Analytical Batch: VMS2401
Analytical Method: SW-846 8260B
Instrument: MSD3
Analyst: BWS

Prep Batch: VXX3684
Prep Method: SW-846 5030B
Prep Date/Time: 07/23/2012 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 SM
Prep Batch: VXX3689
Prep Date: 07/23/2012 08:00

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS-S for HBN 25982 [VXX/3689]	81845	07/23/2012 09:19	VMS2399	MSD4	DVO
LCSD-S for HBN 25982 [VXX/3689	81846	07/23/2012 09:43	VMS2399	MSD4	DVO
MB-S for HBN 25982 [VXX/3689]	81847	07/23/2012 11:20	VMS2399	MSD4	DVO
102 DPT-03 (4-5ft)	31202264005	07/23/2012 17:27	VMS2399	MSD4	DVO
105 DPT-09 (4-5ft)(81210MS)	81848	07/23/2012 19:30	VMS2399	MSD4	DVO
105 DPT-09 (4-5ft)(81210MSD)	81849	07/23/2012 19:54	VMS2399	MSD4	DVO

Method Blank

Blank ID: MB-S for HBN 25982 [VXX/3689]
Blank Lab ID: 81847
QC for Samples:
31202264005

Matrix: Soil-Solid as dry weight

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Dichlorodifluoromethane	ND	U	8.55	250	ug/Kg	50
Chloromethane	ND	U	22.4	50.0	ug/Kg	50
Vinyl chloride	ND	U	6.20	50.0	ug/Kg	50
Bromomethane	ND	U	11.9	50.0	ug/Kg	50
Chloroethane	ND	U	15.6	50.0	ug/Kg	50
Trichlorofluoromethane	ND	U	6.85	50.0	ug/Kg	50
1,1-Dichloroethene	ND	U	10.6	50.0	ug/Kg	50
Acetone	ND	U	43.2	1250	ug/Kg	50
Methylene chloride	ND	U	7.60	250	ug/Kg	50
trans-1,2-Dichloroethene	ND	U	11.2	50.0	ug/Kg	50
tert-Butyl methyl ether (MTBE)	ND	U	7.20	50.0	ug/Kg	50
1,1-Dichloroethane	ND	U	8.25	50.0	ug/Kg	50
Diisopropyl Ether	ND	U	14.7	50.0	ug/Kg	50
2,2-Dichloropropane	ND	U	19.7	50.0	ug/Kg	50
cis-1,2-Dichloroethene	ND	U	6.80	50.0	ug/Kg	50
2-Butanone	ND	U	36.2	1250	ug/Kg	50
Bromochloromethane	ND	U	10.6	50.0	ug/Kg	50
Chloroform	ND	U	6.95	50.0	ug/Kg	50
1,1,1-Trichloroethane	ND	U	6.15	50.0	ug/Kg	50
Carbon tetrachloride	ND	U	5.05	50.0	ug/Kg	50
1,1-Dichloropropene	ND	U	4.32	50.0	ug/Kg	50
Benzene	ND	U	5.65	50.0	ug/Kg	50
1,2-Dichloroethane	ND	U	8.35	50.0	ug/Kg	50
Trichloroethene	ND	U	6.25	50.0	ug/Kg	50
1,2-Dichloropropane	ND	U	8.15	50.0	ug/Kg	50
Dibromomethane	ND	U	8.40	50.0	ug/Kg	50
Bromodichloromethane	ND	U	5.50	50.0	ug/Kg	50
cis-1,3-Dichloropropene	ND	U	3.84	50.0	ug/Kg	50
4-Methyl-2-pentanone	ND	U	27.9	250	ug/Kg	50
Toluene	ND	U	6.65	50.0	ug/Kg	50
Methyl iodide	ND	U	5.75	50.0	ug/Kg	50
trans-1,3-Dichloropropene	ND	U	4.31	50.0	ug/Kg	50
Carbon disulfide	ND	U	5.30	50.0	ug/Kg	50
1,1,2-Trichloroethane	ND	U	6.30	50.0	ug/Kg	50
Tetrachloroethene	ND	U	7.75	50.0	ug/Kg	50
1,3-Dichloropropane	ND	U	6.50	50.0	ug/Kg	50
2-Hexanone	ND	U	36.4	250	ug/Kg	50
Dibromochloromethane	ND	U	6.70	50.0	ug/Kg	50
1,2-Dibromoethane	ND	U	6.00	50.0	ug/Kg	50
Chlorobenzene	ND	U	5.80	50.0	ug/Kg	50
1,1,1,2-Tetrachloroethane	ND	U	5.20	50.0	ug/Kg	50
Bromoform	ND	U	4.87	50.0	ug/Kg	50

Print Date: 07/26/2012

N.C. Certification # 481

Method Blank

Blank ID: MB-S for HBN 25982 [VXX/3689]
Blank Lab ID: 81847
QC for Samples:
31202264005

Matrix: Soil-Solid as dry weight

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Bromobenzene	ND	U	5.50	50.0	ug/Kg	50
1,1,2,2-Tetrachloroethane	ND	U	7.80	50.0	ug/Kg	50
1,2,3-Trichloropropane	ND	U	10.6	50.0	ug/Kg	50
Ethyl Benzene	ND	U	4.39	50.0	ug/Kg	50
m,p-Xylene	ND	U	9.10	100	ug/Kg	50
Styrene	ND	U	5.10	50.0	ug/Kg	50
o-Xylene	ND	U	4.37	50.0	ug/Kg	50
Xylene (total)	ND	U	9.10	100	ug/Kg	50
Isopropylbenzene (Cumene)	ND	U	4.35	50.0	ug/Kg	50
n-Propylbenzene	ND	U	5.65	50.0	ug/Kg	50
2-Chlorotoluene	ND	U	5.65	50.0	ug/Kg	50
4-Chlorotoluene	ND	U	6.25	50.0	ug/Kg	50
1,3,5-Trimethylbenzene	ND	U	5.65	50.0	ug/Kg	50
tert-Butylbenzene	ND	U	4.28	50.0	ug/Kg	50
1,2,4-Trimethylbenzene	ND	U	4.81	50.0	ug/Kg	50
sec-Butylbenzene	ND	U	5.60	50.0	ug/Kg	50
1,3-Dichlorobenzene	ND	U	5.15	50.0	ug/Kg	50
4-Isopropyltoluene	ND	U	3.85	50.0	ug/Kg	50
1,4-Dichlorobenzene	ND	U	6.50	50.0	ug/Kg	50
1,2-Dichlorobenzene	ND	U	6.85	50.0	ug/Kg	50
n-Butylbenzene	ND	U	3.85	50.0	ug/Kg	50
1,2-Dibromo-3-chloropropane	ND	U	37.4	250	ug/Kg	50
1,2,4-Trichlorobenzene	ND	U	4.57	50.0	ug/Kg	50
Hexachlorobutadiene	ND	U	3.96	50.0	ug/Kg	50
Naphthalene	ND	U	4.28	50.0	ug/Kg	50
trans-1,4-Dichloro-2-butene	ND	U	20.7	250	ug/Kg	50
1,2,3-Trichlorobenzene	ND	U	5.50	50.0	ug/Kg	50
Surrogates						
1,2-Dichloroethane-d4	96.0			55.0-173	%	50
Toluene d8	96.0			57.0-134	%	50
4-Bromofluorobenzene	91.0			23.0-141	%	50

Batch Information

Analytical Batch: VMS2399
Analytical Method: SW-846 8260B
Instrument: MSD4
Analyst: DVO
Analytical Date/Time: 7/23/2012 11:20:00AM

Prep Batch: VXX3689
Prep Method: SW-846 5035 SM
Prep Date/Time: 7/23/2012 8:00:00AM
Prep Initial Wt./Vol.: 5 g
Prep Extract Vol: 5 mL

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 25982 [VXX/3689]
Blank Spike Lab ID: 81845
Date Analyzed: 07/23/2012 09:19

Spike Duplicate ID: LCSD-S for HBN 25982 [VXX/3689
Spike Duplicate Lab ID: 81846
Matrix: Soil-Solid as dry weight

QC for Samples: 31202264005

Results by SW-846 8260B

	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Dichlorodifluoromethane	250	219	87	250	240	96	70.0-130	9.2	30.00
Chloromethane	250	254	101	250	277	111	70.0-130	8.7	30.00
Vinyl chloride	250	219	87	250	247	99	70.0-130	12	30.00
Bromomethane	250	298	119	250	329	131*	70.0-130	9.9	30.00
Chloroethane	250	249	100	250	268	107	70.0-130	7.4	30.00
Trichlorofluoromethane	250	223	89	250	251	100	70.0-130	12	30.00
1,1-Dichloroethene	250	243	97	250	258	103	70.0-130	6.0	30.00
Acetone	1250	1200	96	1250	1260	101	70.0-130	4.9	30.00
Methylene chloride	250	238	95	250	242	97	70.0-130	1.7	30.00
trans-1,2-Dichloroethene	250	247	99	250	249	100	70.0-130	0.81	30.00
tert-Butyl methyl ether (MTBE)	250	240	96	250	243	97	70.0-130	1.2	30.00
1,1-Dichloroethane	250	237	95	250	246	98	70.0-130	3.7	30.00
Diisopropyl Ether	250	235	94	250	243	97	70.0-130	3.3	30.00
2,2-Dichloropropane	250	217	87	250	231	92	70.0-130	6.3	30.00
cis-1,2-Dichloroethene	250	241	96	250	249	100	70.0-130	3.3	30.00
2-Butanone	1250	1210	97	1250	1290	103	70.0-130	6.4	30.00
Bromochloromethane	250	246	98	250	243	97	70.0-130	1.2	30.00
Chloroform	250	244	97	250	254	102	70.0-130	4.0	30.00
1,1,1-Trichloroethane	250	227	91	250	238	95	70.0-130	4.7	30.00
Carbon tetrachloride	250	221	88	250	236	94	70.0-130	6.6	30.00
1,1-Dichloropropene	250	245	98	250	259	103	70.0-130	5.6	30.00
Benzene	250	244	98	250	254	102	70.0-130	4.0	30.00
1,2-Dichloroethane	250	235	94	250	242	97	70.0-130	2.9	30.00
Trichloroethene	250	237	95	250	245	98	70.0-130	3.3	30.00
1,2-Dichloropropane	250	243	97	250	249	100	70.0-130	2.4	30.00
Dibromomethane	250	237	95	250	245	98	70.0-130	3.3	30.00
Bromodichloromethane	250	224	89	250	230	92	70.0-130	2.6	30.00
cis-1,3-Dichloropropene	250	246	98	250	255	102	70.0-130	3.6	30.00
4-Methyl-2-pentanone	1250	1230	99	1250	1270	102	70.0-130	3.2	30.00
Toluene	250	249	99	250	254	102	70.0-130	2.0	30.00
Methyl iodide	250	203	81	250	220	88	70.0-130	8.0	30.00
trans-1,3-Dichloropropene	250	217	87	250	224	90	70.0-130	3.2	30.00
Carbon disulfide	250	243	97	250	249	99	70.0-130	2.4	30.00
1,1,2-Trichloroethane	250	251	100	250	254	101	70.0-130	1.2	30.00

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 25982 [VXX/3689]
Blank Spike Lab ID: 81845
Date Analyzed: 07/23/2012 09:19

Spike Duplicate ID: LCSD-S for HBN 25982 [VXX/3689
Spike Duplicate Lab ID: 81846
Matrix: Soil-Solid as dry weight

QC for Samples: 31202264005

Results by SW-846 8260B

	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Tetrachloroethene	250	247	99	250	254	101	70.0-130	2.8	30.00
1,3-Dichloropropane	250	248	99	250	253	101	70.0-130	2.0	30.00
2-Hexanone	1250	1230	99	1250	1270	102	70.0-130	3.2	30.00
Dibromochloromethane	250	218	87	250	229	91	70.0-130	4.9	30.00
1,2-Dibromoethane	250	242	97	250	249	99	70.0-130	2.9	30.00
Chlorobenzene	250	253	101	250	255	102	70.0-130	0.79	30.00
1,1,1,2-Tetrachloroethane	250	210	84	250	216	86	70.0-130	2.8	30.00
Bromoform	250	219	87	250	221	88	70.0-130	0.91	30.00
Bromobenzene	250	245	98	250	251	100	70.0-130	2.4	30.00
1,1,2,2-Tetrachloroethane	250	254	101	250	260	104	70.0-130	2.3	30.00
1,2,3-Trichloropropane	250	250	100	250	252	101	70.0-130	0.80	30.00
Ethyl Benzene	250	242	97	250	245	98	70.0-130	1.2	30.00
m,p-Xylene	500	499	100	500	499	100	70.0-130	0.0	30.00
Styrene	250	247	99	250	247	99	70.0-130	0.0	30.00
o-Xylene	250	252	101	250	256	102	70.0-130	1.6	30.00
Isopropylbenzene (Cumene)	250	250	100	250	253	101	70.0-130	1.2	30.00
n-Propylbenzene	250	249	100	250	252	101	70.0-130	1.2	30.00
2-Chlorotoluene	250	254	102	250	252	101	70.0-130	0.79	30.00
4-Chlorotoluene	250	244	97	250	242	97	70.0-130	0.82	30.00
1,3,5-Trimethylbenzene	250	248	99	250	251	100	70.0-130	1.2	30.00
tert-Butylbenzene	250	243	97	250	255	102	70.0-130	4.8	30.00
1,2,4-Trimethylbenzene	250	251	100	250	256	102	70.0-130	2.0	30.00
sec-Butylbenzene	250	246	98	250	248	99	70.0-130	0.81	30.00
1,3-Dichlorobenzene	250	250	100	250	252	101	70.0-130	0.80	30.00
4-Isopropyltoluene	250	246	98	250	250	100	70.0-130	1.6	30.00
1,4-Dichlorobenzene	250	252	101	250	259	104	70.0-130	2.7	30.00
1,2-Dichlorobenzene	250	250	100	250	252	101	70.0-130	0.80	30.00
n-Butylbenzene	250	253	101	250	260	104	70.0-130	2.7	30.00
1,2-Dibromo-3-chloropropane	1500	1170	78	1500	1280	85	70.0-130	9.0	30.00
1,2,4-Trichlorobenzene	250	231	92	250	234	94	70.0-130	1.3	30.00
Hexachlorobutadiene	250	259	103	250	257	103	70.0-130	0.78	30.00
Naphthalene	250	248	99	250	250	100	70.0-130	0.80	30.00
trans-1,4-Dichloro-2-butene	1250	1130	90	1250	1180	95	70.0-130	4.3	30.00
1,2,3-Trichlorobenzene	250	245	98	250	246	98	70.0-130	0.41	30.00

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 25982 [VXX/3689]
Blank Spike Lab ID: 81845
Date Analyzed: 07/23/2012 09:19

Spike Duplicate ID: LCSD-S for HBN 25982 [VXX/3689
Spike Duplicate Lab ID: 81846
Matrix: Soil-Solid as dry weight

QC for Samples: 31202264005

Results by SW-846 8260B

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Surrogates									
1,2-Dichloroethane-d4			97			97	55.0-173		
Toluene d8			100			101	57.0-134		
4-Bromofluorobenzene			101			101	23.0-141		

Batch Information

Analytical Batch: VMS2399
Analytical Method: SW-846 8260B
Instrument: MSD4
Analyst: DVO

Prep Batch: VXX3689
Prep Method: SW-846 5035 SM
Prep Date/Time: 07/23/2012 08:00
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: VXX3692
Prep Date: 07/24/2012 08:33

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS for HBN 25993 [VXX/3692]	81880	07/24/2012 11:44	VMS2404	MSD3	BWS
LCSD for HBN 25993 [VXX/3692]	81881	07/24/2012 12:09	VMS2404	MSD3	BWS
MB for HBN 25993 [VXX/3692]	81882	07/24/2012 13:00	VMS2404	MSD3	BWS
102 DPT-03	31202264006	07/24/2012 14:41	VMS2404	MSD3	BWS
OW-11D(81329MS)	81981	07/24/2012 21:51	VMS2404	MSD3	BWS
OW-11D(81329MSD)	81982	07/24/2012 22:16	VMS2404	MSD3	BWS

Method Blank

Blank ID: MB for HBN 25993 [VXX/3692]
Blank Lab ID: 81882
QC for Samples:
31202264006

Matrix: Water

Results by SW-846 8260B

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Acetone	ND	U	0.864	25.0	ug/L	1

Batch Information

Analytical Batch: VMS2404
Analytical Method: SW-846 8260B
Instrument: MSD3
Analyst: BWS
Analytical Date/Time: 7/24/2012 1:00:00PM

Prep Batch: VXX3692
Prep Method: SW-846 5030B
Prep Date/Time: 7/24/2012 8:33:40AM
Prep Initial Wt./Vol.: 40 mL
Prep Extract Vol: 40 mL

Print Date: 07/26/2012

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Blank Spike Summary

Blank Spike ID: LCS for HBN 25993 [VXX/3692]
Blank Spike Lab ID: 81880
Date Analyzed: 07/24/2012 11:44

Spike Duplicate ID: LCSD for HBN 25993 [VXX/3692]
Spike Duplicate Lab ID: 81881
Date Analyzed: 07/24/2012 12:09
Matrix: Water

QC for Samples: 31202264006

Results by SW-846 8260B

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Acetone	25.0	28.7	115	25.0	28.4	114	52.0-140	1.1	30.00

Batch Information

Analytical Batch: VMS2404
Analytical Method: SW-846 8260B
Instrument: MSD3
Analyst: BWS

Prep Batch: VXX3692
Prep Method: SW-846 5030B
Prep Date/Time: 07/24/2012 08:33
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 8270D

Prep Method: SW-846 3541
Prep Batch: XXX2835
Prep Date: 07/19/2012 10:33

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
MB for HBN 25823 [XXX/2835]	81256	07/20/2012 09:16	XMS1606	MSD10	CMP
LCS for HBN 25823 [XXX/2835]	81257	07/20/2012 09:39	XMS1606	MSD10	CMP
SW(81162MS)	81258	07/20/2012 13:52	XMS1606	MSD10	CMP
SW(81162MSD)	81259	07/20/2012 14:15	XMS1606	MSD10	CMP
102 DPT-01 (2-3ft)	31202264001	07/20/2012 14:38	XMS1606	MSD10	CMP
102 DPT-01 (4-5ft)	31202264002	07/20/2012 15:01	XMS1606	MSD10	CMP
102 DPT-02 (2-3ft)	31202264003	07/20/2012 15:24	XMS1606	MSD10	CMP
102 DPT-02 (3-4ft)	31202264004	07/20/2012 15:47	XMS1606	MSD10	CMP
102 DPT-03 (4-5ft)	31202264005	07/20/2012 16:10	XMS1606	MSD10	CMP

Method Blank

Blank ID: MB for HBN 25823 [XXX/2835]
Blank Lab ID: 81256
QC for Samples:
31202264001, 31202264002, 31202264003, 31202264004, 31202264005

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

Print Date: 07/26/2012

N.C. Certification # 481

Method Blank

Blank ID: MB for HBN 25823 [XXX/2835]
Blank Lab ID: 81256
QC for Samples:
31202264001, 31202264002, 31202264003, 31202264004, 31202264005

Matrix: Soil-Solid as dry weight

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
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
Surrogates						
2-Fluorophenol	81.0			42.0-123	%	1
Phenol-d6	97.0			48.0-125	%	1
Nitrobenzene-d5	94.0			46.0-117	%	1
2-Fluorobiphenyl	100			48.0-123	%	1
2,4,6-Tribromophenol	103			41.0-129	%	1
Terphenyl-d14	103			44.0-140	%	1

Batch Information

Analytical Batch: XMS1606
Analytical Method: SW-846 8270D
Instrument: MSD10
Analyst: CMP
Analytical Date/Time: 7/20/2012 9:16:00AM

Prep Batch: XXX2835
Prep Method: SW-846 3541
Prep Date/Time: 7/19/2012 10:33:05AM
Prep Initial Wt./Vol.: 32 g
Prep Extract Vol: 10 mL

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 25823 [XXX/2835]
Blank Spike Lab ID: 81257
Date Analyzed: 07/20/2012 09:39

Matrix: Soil-Solid as dry weight

QC for Samples: 31202264001, 31202264002, 31202264003, 31202264004, 31202264005

Results by **SW-846 8270D**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Phenol	3130	2910	93	67.0-112
Bis(2-Chloroethyl)ether	3130	2860	92	63.0-116
2-Chlorophenol	3130	3000	96	67.0-109
1,3-Dichlorobenzene	3130	2910	93	66.0-109
1,4-Dichlorobenzene	3130	2970	95	65.0-112
1,2-Dichlorobenzene	3130	2980	95	67.0-110
2-Methylphenol	3130	2990	96	68.0-110
3 and/or 4-Methylphenol	6250	6490	104	66.0-113
Bis(2-Chloroisopropyl)ether	3130	2720	87	64.0-114
n-Nitrosodi-n-propylamine	3130	2910	93	66.0-111
Hexachloroethane	3130	2940	94	64.0-110
Nitrobenzene	3130	2860	92	69.0-112
Isophorone	3130	2980	95	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	2980	95	68.0-112
Benzoic acid	3130	2560	82	0.00-203
2,4-Dichlorophenol	3130	3110	100	67.0-118
1,2,4-Trichlorobenzene	3130	3120	100	65.0-114
Naphthalene	3130	3120	100	70.0-111
4-Chloroaniline	3130	2160	69	41.0-93.0
Hexachlorobutadiene	3130	2990	96	63.0-124
4-Chloro-3-methylphenol	3130	3100	99	70.0-114
2-Methylnaphthalene	3130	3110	99	69.0-110
Hexachlorocyclopentadiene	3130	3150	101	0.00-1080
2,4,5-Trichlorophenol	3130	3230	103	66.0-119
2,4,6-Trichlorophenol	3130	3090	99	67.0-119
2-Chloronaphthalene	3130	2860	92	57.0-96.0
2-Nitroaniline	3130	2580	83	61.0-100
3-Nitroaniline	3130	2550	81	48.0-103
Dimethyl phthalate	3130	3090	99	69.0-118
2,6-Dinitrotoluene	3130	3110	100	69.0-122
Acenaphthene	3130	3110	99	68.0-111
2,4-Dinitrophenol	3130	2760	88	12.0-125

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 25823 [XXX/2835]
Blank Spike Lab ID: 81257
Date Analyzed: 07/20/2012 09:39

Matrix: Soil-Solid as dry weight

QC for Samples: 31202264001, 31202264002, 31202264003, 31202264004, 31202264005

Results by SW-846 8270D

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
4-Nitrophenol	3130	2990	96	45.0-120
Dibenzofuran	3130	3100	99	71.0-114
2,4-Dinitrotoluene	3130	3110	99	68.0-123
Fluorene	3130	3290	105	66.0-116
Diethyl phthalate	3130	3070	98	68.0-114
4-Chlorophenyl phenyl ether	3130	3240	104	66.0-120
4-Nitroaniline	3130	2850	91	66.0-114
4,6-Dinitro-2-methylphenol	3130	3320	106	24.0-123
Diphenylamine	3130	3160	101	60.0-118
4-Bromophenyl phenyl ether	3130	3160	101	63.0-118
Hexachlorobenzene	3130	2970	95	62.0-112
Pentachlorophenol	3130	2870	92	34.0-125
Phenanthrene	3130	3160	101	60.0-122
Anthracene	3130	3160	101	63.0-113
Di-n-butyl phthalate	3130	3250	104	64.0-121
Fluoranthene	3130	3200	102	64.0-118
Pyrene	3130	3110	99	67.0-116
Butyl benzyl phthalate	3130	3020	97	68.0-118
Benzo(a)anthracene	3130	3110	99	65.0-118
3,3'-Dichlorobenzidine	3130	3050	98	54.0-118
Chrysene	3130	3140	100	66.0-118
Bis(2-Ethylhexyl)phthalate	3130	3100	99	67.0-123
Di-n-octyl phthalate	3130	3070	98	62.0-131
Benzo(b)fluoranthene	3130	2810	90	63.0-119
Benzo(k)fluoranthene	3130	3140	100	69.0-118
Benzo(a)pyrene	3130	3100	99	69.0-113
Indeno(1,2,3-cd)pyrene	3130	3310	106	64.0-123
Dibenz(a,h)anthracene	3130	3260	104	64.0-123
Benzo(g,h,i)perylene	3130	3440	110	57.0-128
Acenaphthylene	3130	3200	102	72.0-115
Surrogates				
2-Fluorophenol			84	42.0-123
Phenol-d6			99	48.0-125
Nitrobenzene-d5			94	46.0-117

Blank Spike Summary

Blank Spike ID: LCS for HBN 25823 [XXX/2835]
Blank Spike Lab ID: 81257
Date Analyzed: 07/20/2012 09:39

Matrix: Soil-Solid as dry weight

QC for Samples: 31202264001, 31202264002, 31202264003, 31202264004, 31202264005

Results by SW-846 8270D

		Blank Spike (%)		
Parameter	Spike	Result	Rec (%)	CL
2-Fluorobiphenyl			101	48.0-123
2,4,6-Tribromophenol			110	41.0-129
Terphenyl-d14			99	44.0-140

Batch Information

Analytical Batch: XMS1606
Analytical Method: SW-846 8270D
Instrument: MSD10
Analyst: CMP

Prep Batch: XXX2835
Prep Method: SW-846 3541
Prep Date/Time: 07/19/2012 10:33
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: XXX2838
Prep Date: 07/19/2012 16:40

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
MB for HBN 25845 [XXX/2838]	81426	07/24/2012 12:25	XMS1609	MSD10	CMP
LCS for HBN 25845 [XXX/2838]	81427	07/24/2012 13:34	XMS1609	MSD10	CMP
LCSD for HBN 25845 [XXX/2838]	81428	07/24/2012 13:57	XMS1609	MSD10	CMP
102 DPT-03	31202264006	07/25/2012 13:15	XMS1610	MSD10	CMP

SGS ANALYTICAL PERSPECTIVES

Method Blank

Blank ID: MB for HBN 25845 [XXX/2838]
Blank Lab ID: 81426
QC for Samples:
31202264006

Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
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: 07/26/2012

N.C. Certification # 481

Method Blank

Blank ID: MB for HBN 25845 [XXX/2838]
Blank Lab ID: 81426
QC for Samples:
31202264006

Matrix: Water

Results by SW-846 8270D

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
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
Surrogates						
2-Fluorophenol	72.0			33.1-118	%	1
Phenol-d6	88.0			49.0-120	%	1
Nitrobenzene-d5	90.0			46.0-118	%	1
2-Fluorobiphenyl	96.0			50.0-107	%	1
2,4,6-Tribromophenol	94.0			29.3-152	%	1
Terphenyl-d14	106			22.1-142	%	1

Batch Information

Analytical Batch: XMS1609
Analytical Method: SW-846 8270D
Instrument: MSD10
Analyst: CMP
Analytical Date/Time: 7/24/2012 12:25:00PM

Prep Batch: XXX2838
Prep Method: SW-846 3520C
Prep Date/Time: 7/19/2012 4:40:38PM
Prep Initial Wt./Vol.: 1000 mL
Prep Extract Vol: 5 mL

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 25845 [XXX/2838]
Blank Spike Lab ID: 81427
Date Analyzed: 07/24/2012 13:34

Spike Duplicate ID: LCSD for HBN 25845 [XXX/2838]
Spike Duplicate Lab ID: 81428
Date Analyzed: 07/24/2012 13:57
Matrix: Water

QC for Samples: 31202264006

Results by SW-846 8270D

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Phenol	50.0	45.7	91	50.0	46.6	93	57.0-113	2.0	30.00
Bis(2-Chloroethyl)ether	50.0	45.6	91	50.0	45.6	91	61.0-117	0.0	30.00
2-Chlorophenol	50.0	47.1	94	50.0	47.9	96	57.0-110	1.7	30.00
1,3-Dichlorobenzene	50.0	32.1	64	50.0	32.5	65	22.0-101	1.2	30.00
1,4-Dichlorobenzene	50.0	33.3	67	50.0	33.8	68	25.0-102	1.5	30.00
1,2-Dichlorobenzene	50.0	35.1	70	50.0	35.6	71	29.0-102	1.4	30.00
2-Methylphenol	50.0	41.8	84	50.0	42.6	85	55.0-110	1.9	30.00
3 and/or 4-Methylphenol	100	92.3	92	100	92.6	93	53.0-118	0.32	30.00
Bis(2-Chloroisopropyl)ether	50.0	43.0	86	50.0	43.4	87	56.0-112	0.93	30.00
n-Nitrosodi-n-propylamine	50.0	39.0	78	50.0	40.1	80	53.0-115	2.8	30.00
Hexachloroethane	50.0	30.4	61	50.0	30.3	61	11.0-104	0.33	30.00
Nitrobenzene	50.0	44.8	90	50.0	45.5	91	63.0-115	1.6	30.00
Isophorone	50.0	46.9	94	50.0	47.9	96	64.0-121	2.1	30.00
2-Nitrophenol	50.0	49.6	99	50.0	49.7	99	58.0-115	0.20	30.00
2,4-Dimethylphenol	50.0	15.5	31*	50.0	14.8	30*	40.0-104	4.6	30.00
Bis(2-Chloroethoxy)methane	50.0	46.9	94	50.0	47.9	96	62.0-107	2.1	30.00
Benzoic acid	50.0	42.7	85	50.0	44.3	89	8.00-186	3.7	30.00
2,4-Dichlorophenol	50.0	47.3	95	50.0	48.0	96	58.0-118	1.5	30.00
1,2,4-Trichlorobenzene	50.0	43.1	86	50.0	43.3	87	45.0-108	0.46	30.00
Naphthalene	50.0	44.5	89	50.0	45.0	90	52.0-110	1.1	30.00
4-Chloroaniline	50.0	38.2	76	50.0	38.3	77	44.0-115	0.26	30.00
Hexachlorobutadiene	50.0	37.9	76	50.0	37.8	76	25.0-115	0.26	30.00
4-Chloro-3-methylphenol	50.0	45.6	91	50.0	47.0	94	56.0-119	3.0	30.00
2-Methylnaphthalene	50.0	47.6	95	50.0	48.2	96	55.0-112	1.3	30.00
Hexachlorocyclopentadiene	50.0	51.1	102	50.0	52.8	106	0.00-1430	3.3	30.00
2,4,5-Trichlorophenol	50.0	50.5	101	50.0	51.7	103	59.0-119	2.3	30.00
2,4,6-Trichlorophenol	50.0	45.3	91	50.0	47.3	95	58.0-116	4.3	30.00
2-Chloronaphthalene	50.0	45.0	90	50.0	45.5	91	57.0-105	1.1	30.00
2-Nitroaniline	50.0	39.6	79	50.0	41.2	82	53.0-108	4.0	30.00
3-Nitroaniline	50.0	42.5	85	50.0	43.3	87	54.0-116	1.9	30.00
Dimethyl phthalate	50.0	49.3	99	50.0	51.2	102	66.0-119	3.8	30.00
2,6-Dinitrotoluene	50.0	50.4	101	50.0	51.6	103	65.0-121	2.4	30.00
Acenaphthene	50.0	48.1	96	50.0	48.7	97	60.0-114	1.2	30.00
2,4-Dinitrophenol	50.0	40.1	80	50.0	44.7	89	1.00-157	11	30.00

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 25845 [XXX/2838]
Blank Spike Lab ID: 81427
Date Analyzed: 07/24/2012 13:34

Spike Duplicate ID: LCSD for HBN 25845 [XXX/2838]
Spike Duplicate Lab ID: 81428
Date Analyzed: 07/24/2012 13:57
Matrix: Water

QC for Samples: 31202264006

Results by SW-846 8270D

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
4-Nitrophenol	50.0	40.9	82	50.0	43.0	86	38.0-123	5.0	30.00
Dibenzofuran	50.0	49.7	99	50.0	50.7	101	64.0-120	2.0	30.00
2,4-Dinitrotoluene	50.0	49.4	99	50.0	51.7	103	65.0-125	4.5	30.00
Fluorene	50.0	51.6	103	50.0	53.7	107	52.0-120	4.0	30.00
Diethyl phthalate	50.0	49.2	98	50.0	51.4	103	59.0-122	4.4	30.00
4-Chlorophenyl phenyl ether	50.0	50.6	101	50.0	53.0	106	61.0-113	4.6	30.00
4-Nitroaniline	50.0	44.9	90	50.0	46.5	93	53.0-123	3.5	30.00
4,6-Dinitro-2-methylphenol	50.0	52.0	104	50.0	56.2	112	30.0-128	7.8	30.00
Diphenylamine	50.0	48.5	97	50.0	50.7	101	51.0-114	4.4	30.00
4-Bromophenyl phenyl ether	50.0	51.2	102	50.0	53.3	107	61.0-109	4.0	30.00
Hexachlorobenzene	50.0	48.5	97	50.0	50.5	101	53.0-110	4.0	30.00
Pentachlorophenol	50.0	46.5	93	50.0	48.0	96	32.0-132	3.2	30.00
Phenanthrene	50.0	50.9	102	50.0	53.4	107	53.0-115	4.8	30.00
Anthracene	50.0	46.1	92	50.0	47.7	95	50.0-113	3.4	30.00
Di-n-butyl phthalate	50.0	53.2	106	50.0	55.1	110	59.0-123	3.5	30.00
Fluoranthene	50.0	52.2	104	50.0	53.8	108	54.0-119	3.0	30.00
Pyrene	50.0	50.3	101	50.0	51.8	104	60.0-120	2.9	30.00
Butyl benzyl phthalate	50.0	49.5	99	50.0	50.8	102	61.0-128	2.6	30.00
Benzo(a)anthracene	50.0	49.0	98	50.0	50.9	102	57.0-119	3.8	30.00
3,3'-Dichlorobenzidine	50.0	43.5	87	50.0	43.7	87	37.0-136	0.46	30.00
Chrysene	50.0	51.2	102	50.0	52.7	105	59.0-117	2.9	30.00
Bis(2-Ethylhexyl)phthalate	50.0	50.1	100	50.0	52.3	105	63.0-122	4.3	30.00
Di-n-octyl phthalate	50.0	50.2	100	50.0	53.0	106	62.0-129	5.4	30.00
Benzo(b)fluoranthene	50.0	45.9	92	50.0	47.7	95	59.0-120	3.8	30.00
Benzo(k)fluoranthene	50.0	49.4	99	50.0	52.0	104	62.0-124	5.1	30.00
Benzo(a)pyrene	50.0	44.2	88	50.0	47.0	94	54.0-123	6.1	30.00
Indeno(1,2,3-cd)pyrene	50.0	51.0	102	50.0	53.0	106	59.0-127	3.8	30.00
Dibenz(a,h)anthracene	50.0	50.4	101	50.0	53.5	107	59.0-129	6.0	30.00
Benzo(g,h,i)perylene	50.0	51.7	103	50.0	53.2	106	60.0-126	2.9	30.00
Acenaphthylene	50.0	47.1	94	50.0	48.1	96	58.0-117	2.1	30.00
Surrogates									
2-Fluorophenol			80			80	33.1-118		
Phenol-d6			96			98	49.0-120		
Nitrobenzene-d5			93			94	46.0-118		

Print Date: 07/26/2012

N.C. Certification # 481

Blank Spike Summary

Blank Spike ID: LCS for HBN 25845 [XXX/2838]
Blank Spike Lab ID: 81427
Date Analyzed: 07/24/2012 13:34

Spike Duplicate ID: LCSD for HBN 25845 [XXX/2838]
Spike Duplicate Lab ID: 81428
Date Analyzed: 07/24/2012 13:57
Matrix: Water

QC for Samples: 31202264006

Results by SW-846 8270D

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
2-Fluorobiphenyl			99			102	50.0-107		
2,4,6-Tribromophenol			105			109	29.3-152		
Terphenyl-d14			99			101	22.1-142		

Batch Information

Analytical Batch: XMS1609
Analytical Method: SW-846 8270D
Instrument: MSD10
Analyst: CMP

Prep Batch: XXX2838
Prep Method: SW-846 3520C
Prep Date/Time: 07/19/2012 16:40
Spike Init Wt./Vol.: 1000 mL Extract Vol: 5 mL
Dupe Init Wt./Vol.: 1000 mL Extract Vol: 5 mL

CHAIN OF CUSTODY

SGS ANALYTICAL PERSPECTIVES
5500 Business Drive
Wilmington, NC 28405
+1 910 350 1903
WWW.SGS.COM

CLIENT: CATLIN / NCDOT
CONTACT: Ben Ashba PHONE NO: (910) 452-5861
PROJECT: NCDOT Parcel 102 SITE / PWSID / WBS #: 35781.1.2 Pitt County U-3315
REPORTS TO: Ben @ CATLIN
EMAIL: ben.ashba@catlinusa.com
INVOICE TO: NCDOT QUOTE # NCDOT
P.O. NUMBER

SGS Reference #: 3120264

PAGE 1 OF 1

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	SAMPLE TYPE (C=COMP, G=GRAB)	PRESERVATIVES USED	MeOH & Sod. Bis Sulf		HCl	1							ANALYSIS REQUIRED: 8260 & 8270	8260	8270							REMARKS
	102 DPT-01 (2-3')	7-16-12	1530	Soil	5	G												✓									@ CB1017
	102 DPT-01 (4-5')		1540																								[illegible]
	102 DPT-02 (2-3')		1620																								@ CB1023
	102 DPT-02 (3-4')		1630																								"
	102 DPT-03 (4-5')		1700																								@ CB1020
	102 DPT-03			H_2O	4														✓	✓							"

COLLECTED/RELINQUISHED BY: (1)	DATE	TIME	RECEIVED BY:
Ben Ashba	7-18-12	1630	[signature]
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Received For Laboratory By:	Date	Time	CoC Seal: INTACT BROKEN ABSENT Sample Receipt Temp: C 1.9

REPORT LEVEL: ☐ Level I ☒ Level II ☐ Level IV
REQUESTED TURNAROUND TIME: ☐ Rush: _____ ☒ Standard
SPECIAL DELIVERABLES: State of Origin: NC ☐ Trust Fund
☐ DoD ☒ EDD: Summary Other: DOT
SPECIAL INSTRUCTIONS:
Shipping Carrier:
Shipping Ticket No:
Notes:

White - Retained by Lab
Yellow - Retained by Client

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **NCDOT - Catlin** Work Order No.: **31202264**

1. ___ Shipped
   X Hand Delivered

2. X COC Present on Receipt
   ___ No COC
   ___ Additional Transmittal Forms

3. ___ Custody Tape on Container
   X No Custody Tape

4. X Samples Intact
   ___ Samples Broken / Leaking

5. X Chilled on Receipt Actual Temp.(s) in °C: 1.9
   ___ Ambient on Receipt
   ___ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. X Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

7. ___ Chlorine absent
   ___ HNO3 < 2
   ___ HCL < 2
   ___ Additional Preservatives verified (see notes)

8. X Received Within Holding Time
   ___ Not Received Within Holding Time

9. X No Discrepancies Noted
   ___ Discrepancies Noted
   ___ NCDENR notified of Discrepancies*

10. X No Headspace present in VOC vials
    ___ Headspace present in VOC vials >6mm

Notes:

Comments:

Inspected and Logged in by: AV
Date: Thu-7/19/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met. MI_11.6

APPENDIX D
PHOTOGRAPHS

PARCEL 102, WARD HOLDINGS, LLC – VACANT LOT
111 B WEST 10TH STREET

From near Northern property line looking Southwest across the site.

From Eastern portion of property near proposed ROW, looking North.
Proposed Catch Basin 1117 (on Parcel 105) location in foreground.