



January 4, 2013

North Carolina Department of Transportation
Geotechnical Engineering Unit
GeoEnvironmental Section
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Attention: Mr. Craig Haden

email: cehaden@ncdot.gov

Reference: **Preliminary Site Assessment Report**
NCDOT Project U-4432. WBS Element 35029.1.2
Widen SR 1370 (Tryon Rd.) to multi-lane, part on new location, from
US-70-401 (Wilmington St.) to West of Bridge No. 259 and Replace
Bridge No. 259 on SR 1370 over Norfolk Southern Railway
Parcel No. 110, Bannister Properties, LLC
Raleigh, Wake County, North Carolina
S&ME Project No. 1054-12-390

Dear Mr. Haden,

S&ME, Inc. (S&ME) is submitting this Preliminary Site Assessment (PSA) Report to the North Carolina Department of Transportation (NCDOT). This report presents the background information, field activities, findings, conclusions, and recommendations. These services were performed in general accordance with S&ME Proposal No. 179-12V, dated October 31, 2012, and Contract Number 7000012210 dated June 2, 2012, between NCDOT and S&ME.

1.0 INTRODUCTION

1.1 Background Information

Based on the NCDOT's October 24, 2012, *Request for Technical and Cost Proposal*, and additional information from the NCDOT's file transfer site, the PSA was conducted within the NCDOT right-of-way (ROW) and/or up to the permanent utility easement at the following property:

Parcel #110 Bannister Properties, LLC

Additional information provided from the NCDOT's file transfer site and additional e-mails, included:

- CADD and PDF files which were used as a base map for preparation of this PSA. The PSA included a preliminary geophysical site assessment, and subsequent limited soil sampling (ten borings up to ten feet below ground surface (ft. bgs.)), within the designated ROW/Easement assessment area. **Figure 1**

shows the vicinity and site location, and **Figure 2** shows the site and boring locations. Soil sampling results are shown on **Figure 3**.

Project Information

A site specific Health and Safety Plan was prepared prior to field activities. Underground utilities were located and marked by the North Carolina One-Call Service. A private utility locator, Bateman Civil Survey of Raleigh, North Carolina, was also used to mark on site buried utilities and the potential locations of underground storage tanks (USTs) and associated utilities.

Parcel #110 Bannister Properties, LLC (**Figure 2**) consists of three businesses:

- **Auto Drive – 475 Tryon Road, Raleigh, NC.** Auto Drive is an active used car lot.
- **Duty Tire – 405 Tryon Road, Raleigh, NC.** Duty Tire is an automotive repair shop. According to the North Carolina Department of Environment and Natural Resources (NCDENR) Underground Storage Tank (UST) Database, one 500-gallon UST was closed in 1991 (Facility ID # 0-021604 Dumar Tire, Inc.).
- **Triangle Rental Car – 3600 S. Wilmington Street, Raleigh, NC.** Triangle Rental Car operates as an automotive leasing company, and has historically operated as a used car lot. During a site reconnaissance performed by others for NCDOT Project B-4946, a UST was visually observed west of the building. The UST appeared to be an unregulated heating oil tank. No other USTs or environmental features were observed.

S&ME was requested to investigate the existing NCDOT right-of-way (ROW) and/or up to the permanent utility easement in preparation for construction of the across the subject property.

2.0 GEOPHYSICAL SITE ASSESSMENT

2.1 Methods and Field Testing

On November 20, 2012 S&ME personnel performed time domain electromagnetic (TDEM) and ground penetrating radar (GPR) surveys within the proposed right-of-way and/or easement of the accessible areas of Parcel #110. These technologies were used in conjunction with each other in order to detect the presence of potential USTs at the site. A brief description of each technology is presented in Section 2.2 and 2.3.

2.2 Time Domain Electromagnetic Methodology

TDEM methods measure the electrical conductivity of shallow subsurface materials. The conductivity is determined by transmitting a time-varying magnetic pulse into the ground and measuring the amplitude and phase shift of the secondary magnetic field. The secondary magnetic field is created when the conductive materials become an inductor as

the primary magnetic field is passed through them.

The TDEM survey was performed with a Geonics EM-61 MKII system, which has a 1.0-meter by 0.5-meter coil system. The EM-61 TDEM system allows discrimination between moderately conductive subsurface materials and very conductive metallic targets as the secondary electromagnetic response from metallic targets are of longer duration than those created by moderately conductive subsurface materials. Accordingly, only the later EM arrivals are recorded so that only the very conductive metallic features are targeted. The survey was designed to locate metallic tanks within depths of about 5 feet, the assumed maximum depth at which we anticipated the top of a UST to be present. These data can be acquired with GPS support so the results can be used in Surfer Version 10.0 to geostatistically grid and plot the data. **Figure 4** shows the TDEM location plan.

TDEM data were collected along a grid spaced at approximate 5-foot intervals. **Figure 5** provides the TDEM dataset collected at the subject Parcel.

2.3 Ground Penetrating Radar

GPR is an electromagnetic method that detects interfaces between subsurface materials with differing dielectric constants. The transmitter radiates electromagnetic waves into the earth from an antenna moving across the ground surface. Electromagnetic waves are reflected back to the receiver by interfaces between materials with differing dielectric constants. The intensity of the reflected signal is a function of the contrast in the dielectric constant at the interface, the conductivity of the material that the wave is traveling through, and the frequency of the signal.

The GPR survey was performed with a GSSI SIRS-3000 unit equipped with a 400 MHz shielded antenna. The depth of GPR wave penetration at the site is a function of the conductivity of the subsurface materials and signal frequency. The average maximum depth of penetration for the GPR survey was approximately four feet below ground surface at the site. **Figure 6** shows the GPR test locations. **Figures 7** presents the GPR profiles of the anomalies.

3.0 SOIL ASSESSMENT

3.1 Soil Sampling

On November 29, 2012, S&ME advanced 10 soil borings on the subject property within the specified NCDOT ROW/Easement. The soil boring locations were placed along the proposed ROW and near the two anomalies identified during the geophysical survey (**Figures 3 and 6**). S&ME utilized a track mounted Geoprobe® rig to perform the borings and to collect soil samples. S&ME's drill crew advanced the Geoprobe® borings up to approximately 10 ft.-bgs. A photographic log is included in **Appendix I**. Soil samples were continuously collected in five foot long disposable acetate-plastic sleeves that line the hollow stainless-steel sample probes. Soil recovered from the sleeves was classified on-site by S&ME personnel and screened with a Photoionization Detector (PID) at approximately two foot intervals to measure relative headspace concentrations of volatile organic compounds (VOCs).

VOC headspace readings were obtained from an aliquot of each soil sample that was placed in a re-sealable bag. Another portion of the sample was placed in a separate re-sealable bag and stored in an insulated container with ice for possible laboratory analyses. After waiting approximately 15 minutes to allow the sample to reach ambient temperature and headspace equilibrium, the PID probe was inserted into the bag to obtain a headspace reading. A summary of the PID readings is shown in **Table 1**, and logs of the soil borings are included in **Appendix II**.

Selected soil samples were placed directly into laboratory supplies containers and shipped to Pace Analytical Services (Pace) a North Carolina certified laboratory, under standard chain-of-custody procedure. Soil samples were analyzed for total petroleum hydrocarbons for gasoline range organics (TPH-GRO) EPA Method 8015B/5030B and diesel range organics (TPH-DRO) by EPA Method 8015B/3546, and for VOCs by EPA Method 8260B.

Borings were backfilled with bentonite pellets and soil. Used gloves were bagged and disposed off-site.

3.2 Soil Sample Analytical Results

The approximate soil boring locations are shown in **Figure 2**. The soil sampling laboratory results are summarized in **Table 2** and shown on **Figure 3**, and a copy of the laboratory analytical report is included as an **Appendix III**.

The laboratory analytical results indicated that TPH-DRO was detected in soil boring B-9 in a concentration exceeding the North Carolina Action Level of 10 milligrams per kilogram (mg/Kg). Concentrations of TPH-GRO were not reported above the laboratory's detection limits in the soil sample B-9. In addition, TPH-DRO, TPH-GRO, and VOCs were not reported above the laboratory's reporting limits in the other soil samples submitted for analyses.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Geophysical Assessment

Eight TDEM anomalies (Anomalies 1 through 8) not corresponding to site surface features were identified in the TDEM dataset (**Figure 5**); the anomalies were also marked in the field. These anomalies consisted of automobiles, storm drain drop inlets, reinforced concrete, and utility poles.

TDEM data were collected along a grid spaced at approximate 5-foot intervals in accessible portions of the site (**Figure 4**). One TDEM anomaly (Anomaly 1) not corresponding to site surface features was identified in the TDEM dataset (**Figure 5**); the anomaly was also marked in the field.

GPR data were then collected along perpendicular profiles over the identified TDEM anomaly and at other locations of the site; a total of eighteen GPR profiles were collected (**Figure 6**). GPR reflections associated with Anomaly 1 are characterized by a relatively

small high amplitude response at about 2 feet below ground surface (bgs). A second anomaly not associated with a TDEM response was identified by the GPR survey (Anomaly 2) and is a 5 ft by 5 ft high amplitude response at about 1 ft bgs. Example GPR profiles are located in **Figure 7**. Anomalies 1 and 2 do not exhibit TDEM responses and/or GPR reflections indicative of USTs.

4.2 Soil Assessment

S&ME advanced 10 soil borings (B-1 through B-10) to approximately 10 ft. bgs, on the subject property at the designated locations illustrated on **Figure 2** on November 29, 2012. The laboratory analytical results of soil samples indicated that TPH-DRO was detected in a concentration exceeding the North Carolina Department of Environment and Natural Resources (NCDENR) Action Level of 10 milligrams per kilogram (mg/Kg) in the soil sample collected from B-9 (16.8 mg/Kg). Concentrations of TPH-DRO and TPH-GRO were below the laboratory's detection limits in all of the other soil samples collected. In addition, no VOCs were detected above the laboratory's detection limits in the soil samples collected.

4.3 Recommendations

It is possible that during construction, NCDOT may encounter soil impacted with petroleum in the vicinity of sample location B-9. Assuming that a section of impacted soil approximately 30 feet in diameter up to eight feet below ground surface may be impacted; up to approximately 260 cubic yards of soil near location B-9 may be impacted, S&ME recommends maintaining an awareness level for the possible presence of petroleum in the soil in the project area.

4.0 LIMITATIONS

The estimated volumes of petroleum impacted soil stated in Section 4.3 above are based on the limited data points and soil samples collected by S&ME for this preliminary investigation. The actual amount of petroleum impacted soil encountered during roadway expansion activities may vary depending on the actual grading plan for the project within the affected ROW/Easement.

The results of this preliminary investigation are limited to the boring locations presented herein. The results of this Preliminary Site Assessment are not all inclusive and may not represent existing conditions across the entire property. These results only reflect the current conditions at the locations sampled on the date this Preliminary Site Assessment was performed. This report has been prepared in accordance with generally accepted environmental engineering and geophysical practice for specific application to this project. The conclusions and recommendations contained in this report are based upon applicable standards of our practice in this geographic area at the time this report was prepared. No other warranty, expressed or implied, is made.

The conclusions for the geophysical assessment submitted herein are based upon the data obtained from the non-invasive testing. As such, even within the surveyed area, the survey cannot be considered 100 percent accurate due to inherent method limitations,

survey limitations, site features, and/or unforeseen site-specific conditions. Accordingly, the possibility exists that not all subsurface, man-made features have been located.

TDEM and GPR are commonly used to locate USTs, however certain limitations exist. Nearby, metallic objects such as vehicles, metal buildings/storage units, heating/air conditioning units, utilities, etc. will interfere with the TDEM survey. Properties of the subsurface materials (e.g., clay content, moisture, etc.) can have a significant impact on the effective depth of penetration of the GPR survey. Accordingly, non-metallic tanks, tanks at depths below about 5 feet, and tanks outside of the survey area may not have been detected using the geophysical techniques. In addition, due to interference, there may be areas within the proposed survey area where an interpretation of subsurface features was not feasible.

Regardless of the thoroughness of a geophysical study, there is always a possibility that actual conditions may not match the interpretations. The results should be considered accurate only to the degree implied by the methods used and the method's limitations and data coverage. Accordingly, the possibility exists that not all geologic features at a project site will be located due to either subsurface soil conditions or the occurrence of features outside the lateral limits and below the depth of penetration of the methods used. The location and/or determination (or the lack thereof) of potential USTs is based on our review of provided information and of the geophysical survey. Under no circumstances does S&ME assume any responsibility for damages resulting from the presence of subsurface features that may exist but were not identified by our survey.

This Preliminary Site Assessment was performed solely for NCDOT regarding the above-referenced site and assessment area. This report is provided for the sole use of NCDOT. Use of this report by any other parties will be at such party's sole risk. S&ME disclaims liability for any such use or reliance by third parties. The observations presented in this report are indicative of conditions during the time of the assessment and of the specific areas referenced.

CLOSING

S&ME welcomes the opportunity to assist you with your environmental needs. Should you have any questions regarding this report, please call Tom Raymond at (919) 954-6229.

Sincerely,

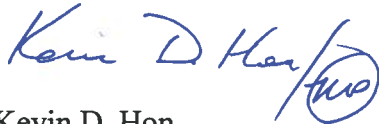
S&ME, Inc.



Michael W. Pfeiffer
Project Manager



Thomas P. Raymond, P.E.
Senior Consultant



Kevin D. Hon
Project Geophysicist

Attachments: Table 1 – Soil Field Screening Results
Table 2 – Soil Laboratory Analytical Results
Figure 1 –Vicinity Map
Figure 2 – Site Map with Boring Locations
Figure 3 – Soil Sample Results Map
Figure 4 – TDEM Test Location Plan
Figure 5 – TDEM Data Plot
Figure 6 – GPR Test Location Plan
Figure 7 – GPR Profile Lines 02, 03, 015, and 016
Appendix I – Photographic Log
Appendix II – Boring Logs
Appendix III – Laboratory Analytical Report and Chain of Custody

TABLES

Table 1
PID Field Soil Screening Results
NCDOT Project U4432 - Parcel No. 110 Bannister Properties, LLC
Tryon Rd. and S. Wilmington Street, Raleigh, Wake County, North Carolina
S&ME Project No. 1054-12-390

Boring Number	Date Measured	Depth (feet bgs)	PID Reading (PPM)
B-1	11/29/2012	1.0 - 3.0	3.8
		3.0 - 4.0	5.5
		4.0 - 6.0	3.7
		6.0 - 8.0	3.1
		8.0 - 10.0	4.9
B-2	11/29/2012	2.0 - 4.0	1.8
		4.0 - 6.0	1.1
		6.0 - 8.0	3.2
B-3	11/29/2012	8.0 - 10.0	1
		2.0 - 4.0	2.1
		4.0 - 6.0	0.8
B-4	11/29/2012	6.0 - 8.0	0.4
		8.0 - 10.0	1.3
		1.0 - 2.0	0.6
		2.0 - 4.0	1.1
B-5	11/29/2012	4.0 - 7.0	0.4
		7.0 - 8.0	2.6
		8.0 - 10.0	0.0
		1.0 2.0	1.3
B-6	11/29/2012	2.0 - 4.0	2.9
		4.0 - 7.0	2.2
		7.0 - 9.0	3.0
		9.0 - 10.0	1.5
B-7	11/29/2012	1.0 - 2.0	1.1
		2.0 - 4.0	2.7
		4.0 - 6.0	4.5
		6.0 - 8.0	1.2
B-8	11/29/2012	8.0 - 10.0	0.4
		1.0 - 2.0	0.3
		3.0 - 5.0	3.4
		6.0 - 7.0	0.6
B-9	11/29/2012	7.0 - 8.0	3.0
		9.0 - 10.0	0.8
		1.0 - 2.0	1.6
		3.0 - 4.0	3.3
B-10	11/29/2012	5.0 - 7.0	0.3
		7.0 - 8.0	3.1
		9.0 - 10.0	1.1
		1.0 - 2.0	1
B-9	11/29/2012	6.0 - 8.0	1.3
		8.0 - 9.0	0.9
		9.0 - 10.0	0.5
B-10	11/29/2012	1.0 - 2.0	1.8
		2.0 - 4.0	2.7
		5.0 - 6.0	1.6
		9.0 - 10.0	0.4

Note:
PID: Photoionization Detector
ppm: parts per million volume in air
bgs: below ground surface
Shaded cells indicate the sample interval selected for laboratory analysis

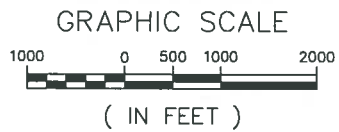
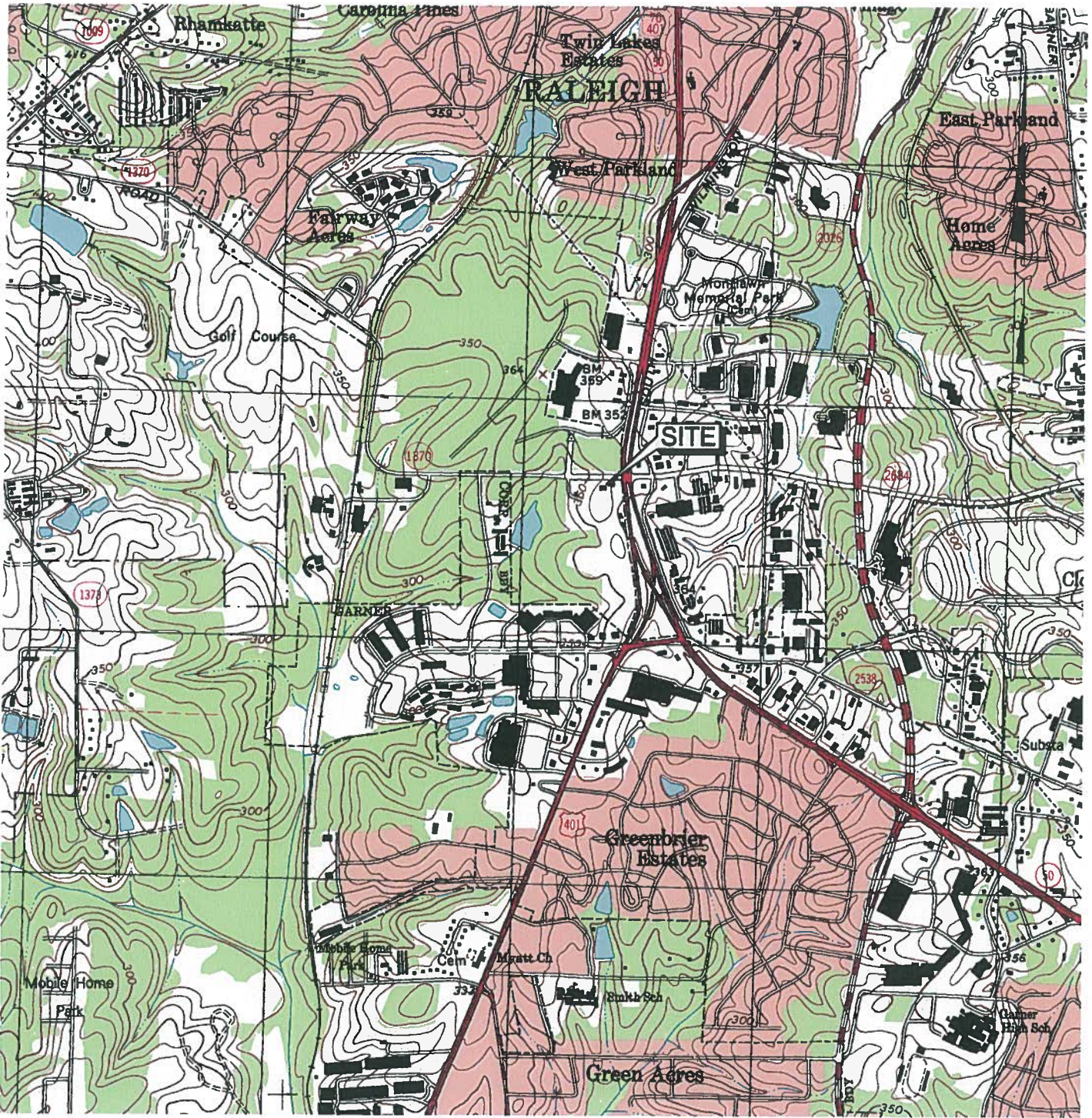
TABLE 2
Summary of Soil Analytical Results
NCDOT Project U4432 - Parcel No. 110 Bannister Properties, LLC
Tryon Road and S. Wilmington Street, Raleigh, Wake County, North Carolina
S&ME Project No. 1054-12-390

			Total Petroleum Hydrocarbons by EPA Method 8015C		Volatile Organic Compounds (VOCs) by EPA Method 8260B
Sample ID	Date Collected	Sample Depth (ft. bgs.)	Gasoline Range Organics (mg/Kg)	Diesel Range Organics (mg/Kg)	Constituent-Specific
B-1	11/29/2012	5.0 - 7.0	<6.3	<6.3	Below Laboratory Detection Limits
B-2	11/29/2012	4.0 - 6.0	<7.9	<6.5	
B-3	11/29/2012	6.0 - 8.0	<9.2	<6.5	
B-4	11/29/2012	5.0 - 7.0	<7.1	<6.7	
B-5	11/29/2012	5.0 - 7.0	<6.5	<6.4	
B-6	11/29/2012	4.0 - 6.0	<8.1	<7.0	
B-7	11/29/2012	3.0 - 5.0	<8.2	<6.6	
B-8	11/29/2012	5.0 - 7.0	<7.4	<6.4	
B-9	11/29/2012	6.0 - 8.0	<6.5	15.8	
B-10	11/29/2012	2.0 - 4.0	<7.3	<6.9	
NCDWM-UST Action Limits			10	10	Not Applicable
Soil to Groundwater MSCCs			Not Applicable		Constituent-Specific
Residential MSCCs					
Industrial MSCCs					

Notes:

1. All results are listed in milligrams per kilograms (mg/kg) = parts per million.
2. ft-bgs = feet below ground surface.
3. TPH: Total Petroleum Hydrocarbons
4. GRO: Gasoline Range Organics
5. DRO: Diesel Range Organics
6. NCDWM: North Carolina Division of Waste Management
7. UST: Underground Storage Tank
8. MSCCs - Maximum Soil Contaminant Concentrations

FIGURES



TOPO SOURCE: NCGS DRG
LAKE WHEELER, DATED 2002
CONTOUR INTERVAL 10 FEET

A-3470

SCALE: GRAPHIC
DATE: DEC. 2012
DRAWN BY: BTR
PROJECT NO: 1054-12-390

S&ME
WWW.SMEINC.COM
NC ENGINEER LICENSE #F-0176
3201 SPRING FOREST RD, RALEIGH, NC 27616

VICINITY MAP
NCDOT U-4432 RALEIGH PSA - PARCEL NO 110
RALEIGH, NORTH CAROLINA

FIGURE NO.

1

S:\PROJECTS\2012\12-390 NCDOT Raleigh PSA\ICADVA3470.dwg, FIG1, 12/17/2012 3:07:38 PM, 1:1

WEISER CARNER, LLC
 DB 13818 PG 2538
 BM 2011 PG 185

GOLDEN CORRALL CORP.
 DB 14659 PG 976
 BM 2011 PG 185

112

IS BR BUS

S WILMINGTON STREET

70+00 RAD 83/95

PERMANENTLY PROTECTED UNDISTURBED OPEN SPACE

SANCE PARK INDUSTRIAL CTR
 DB 14492 PG 2124
 BM 2010 PG 1032

PERMANT SLOPE EASEMENT
 BM 2010 PG 1005

CITY OF RALEIGH SIGN EASEMENT
 BM2000 PG 1005

PROGRESS ENERGY UTILITY EASEMENT O.B. 2395 P. 588

S 89°03' 51.0" E

TRYON ROAD

B-10 B-9 B-8 B-7 B-6 B-5 B-4 B-3 B-2

ESTIMATED AREA OF IMPACTED SOIL

BANNISTER PROPERTIES, LLC
 DB 8874 PG 1150
 PB 1935, PG 39
 PB 2007 PG 1381

110

IS BR BUS

CONC

IS MTL BUS

110

20' CITY OF RALEIGH SANITARY SEWER EASEMENT

BM 1993 PG 0593

5" CHL W 35BW

34" PROGRESS ENERGY UTILITY EASEMENT O.B. 6825 P. 661

SIGN EASE
 BM 2007 PG 1381

CTS NOT FOUND IN FIELD

BST (WIDTH VARIES)

NCDOT CONVA DUCT (FOI)

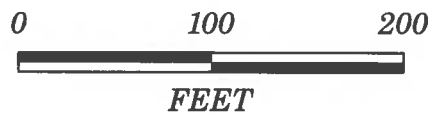
S 72° 08' 11.0" E

BANNISTER PROPERTIES, LLC
 DB 8874 PG 1171
 BM 1986 PG 1995
 BM 1993 1593

109

LEGEND

Geoenvironmental Boring
 Potential Soil Contamination:
 Area or Site



SCALE: 1" = 100'

DATE: DEC. 2012

DRAWN BY: BTR

PROJECT NO:
 1054-12-390



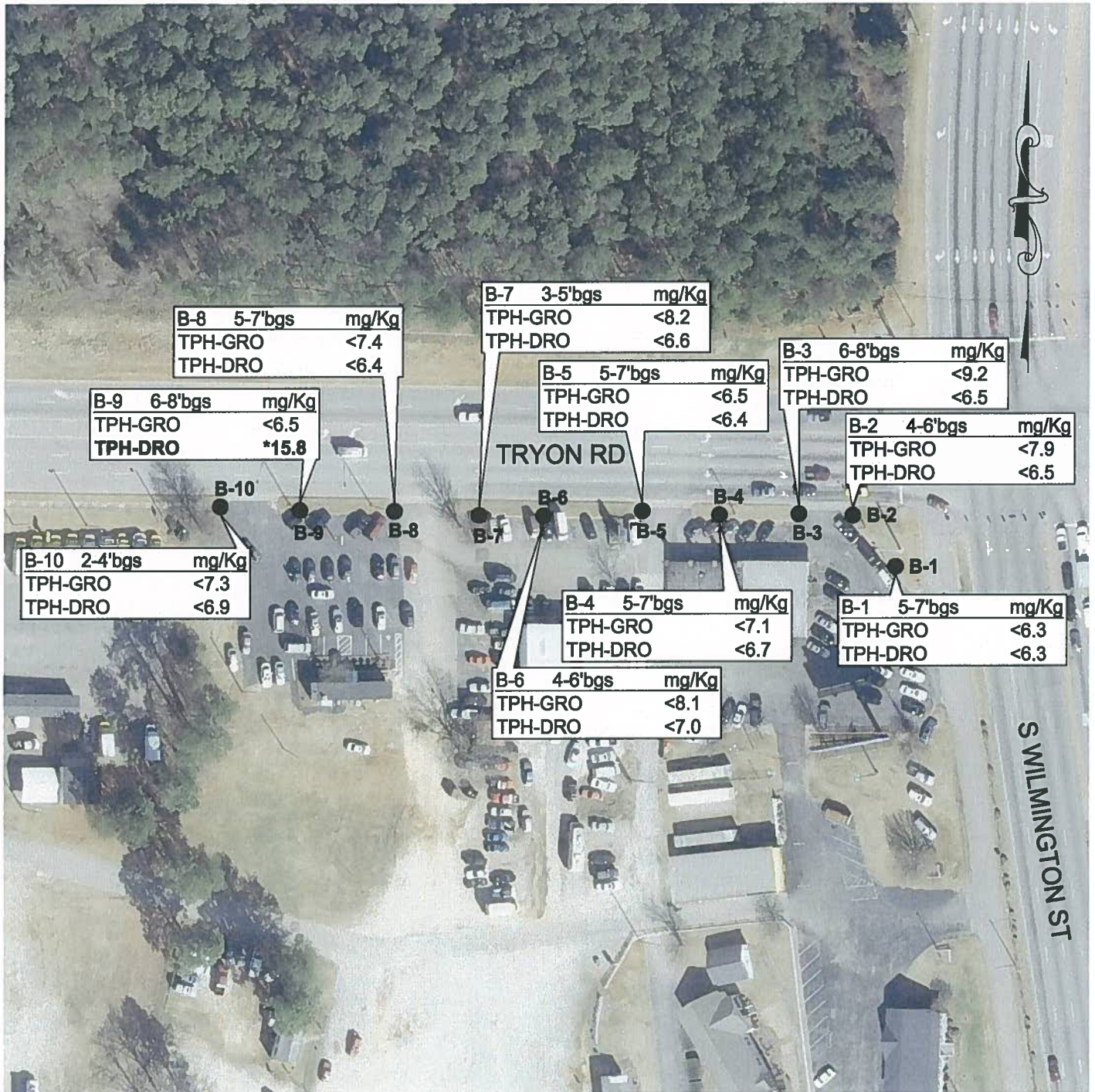
NC ENGINEER LICENSE #F-0176
 3201 SPRING FOREST RD, RALEIGH, NC 27616

SITE MAP

NCDOT U-4432 RALEIGH PSA - PARCEL NO 110
 RALEIGH, NORTH CAROLINA

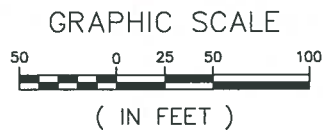
SHEET NO.

2



LEGEND

- APPROXIMATE CONFIRMATORY SAMPLE LOCATION
- SOIL SAMPLES COLLECTED NOV. 29, 2012
- mg/Kg - MILLIGRAMS PER KILOGRAM
- TPH - TOTAL PETROLEUM HYDROCARBONS
- GRO - GASOLINE RANGE ORGANICS
- DRO - DIESEL RANGE ORGANICS
- bgs - BELOW GROUND SURFACE (FEET)
- * INDICATES EXCEEDENCE OF STATE ACTION LEVEL OF 10 mg/Kg



A-3472

SCALE:	GRAPHIC
DATE:	DEC. 2012
DRAWN BY:	BTR
PROJECT NO:	1054-12-390

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 NC ENGINEER LICENSE #F-0176
 3201 SPRING FOREST RD, RALEIGH, NC 27616

SOIL CONSTITUENT MAP
 NCDOT U-4432 RALEIGH PSA - PARCEL NO 110
 RALEIGH, NORTH CAROLINA

FIGURE NO.
3



REFERENCE:

- Google Earth Aerial Photograph
- Dated July 5, 2010

LEGEND

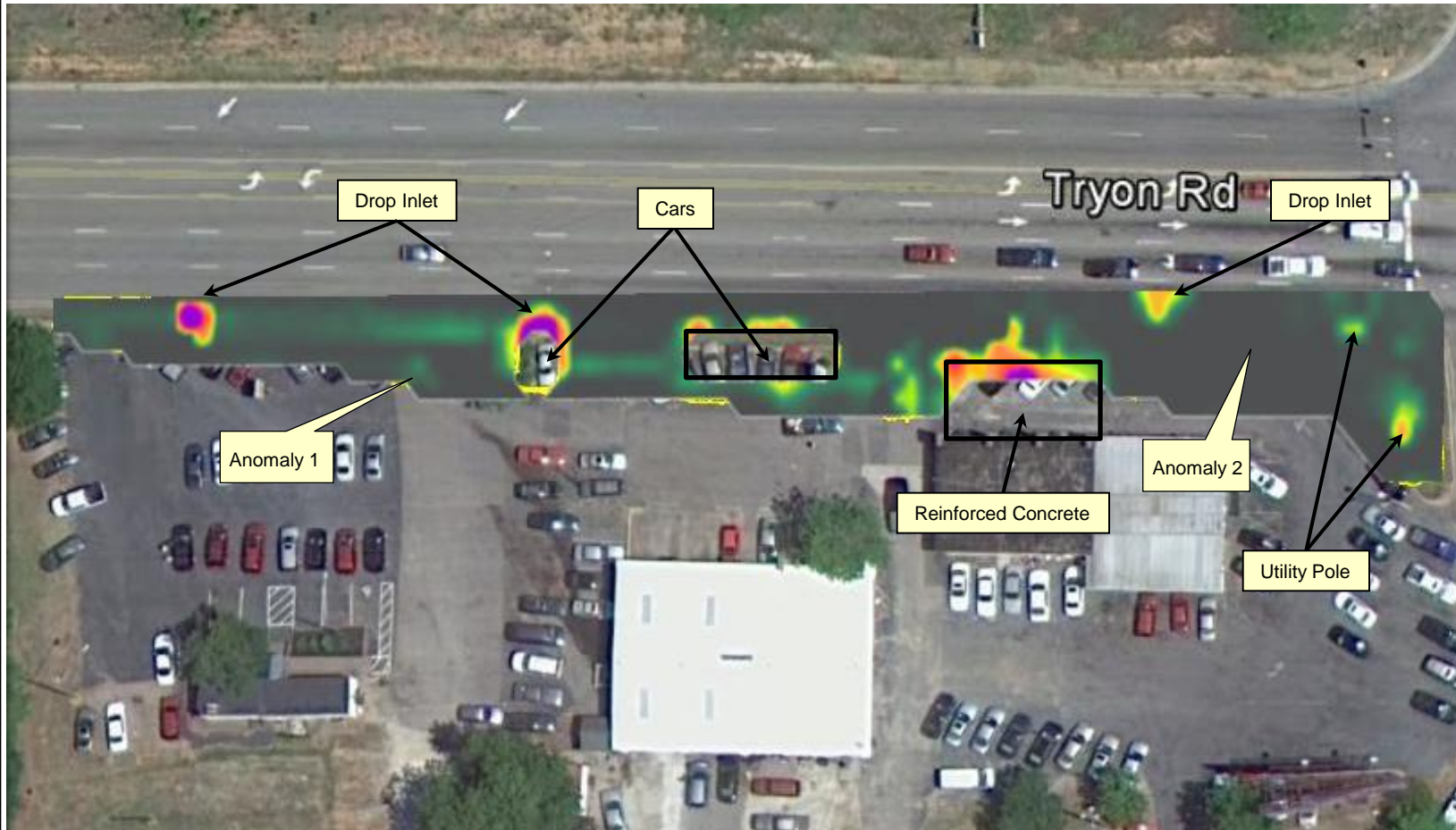
 TDEM Path

SCALE: NTS
DRAWN BY: KDH
CHECKED BY: DDB
DATE: 12-3-12

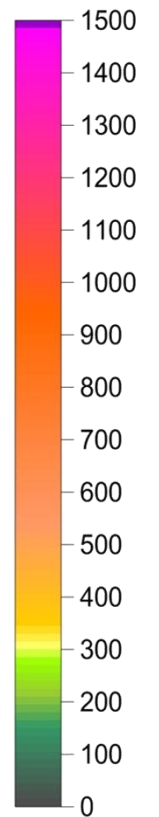


TDEM TEST LOCATION PLAN NCDOT U4432 Parcel 110 UST Survey Raleigh, Wake County, North Carolina
JOB NO.: 1054-12-390

FIGURE NO.
4



Conductivity (mV)



REFERENCE:

- Google Earth Aerial Photograph
- Dated July 5, 2010

SCALE: NTS
DRAWN BY: KDH
CHECKED BY: DDB
DATE: 12-3-12



TDEM DATA PLOT NCDOT U4432 Parcel 110 UST Survey Raleigh, Wake County, North Carolina
JOB NO.: 1054-12-390

FIGURE NO. 5



REFERENCE:

- Google Earth Aerial Photograph
- Dated July 5, 2010

LEGEND

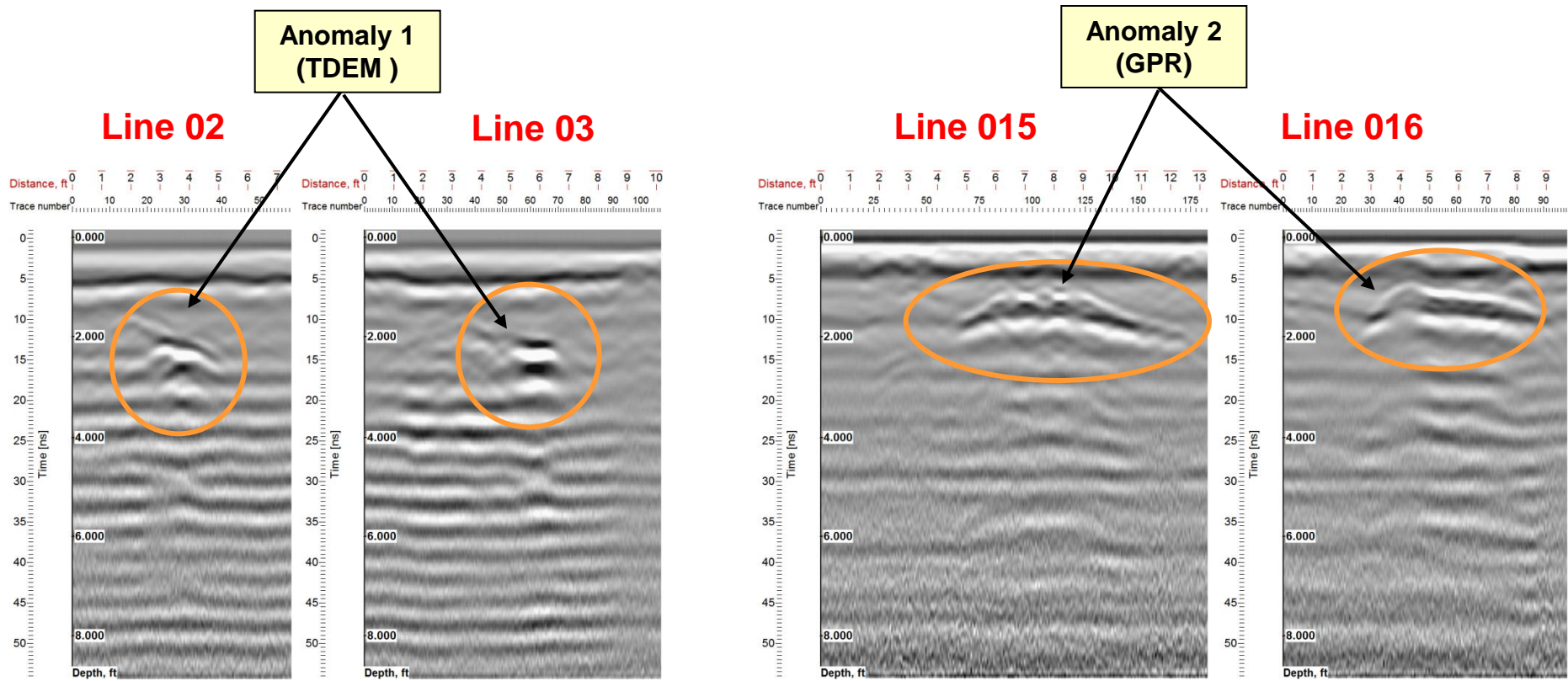
- GPR Line
- Buried Utility
- Anomaly
- Drop Inlet

SCALE: NTS
DRAWN BY: KDH
CHECKED BY: DDB
DATE: 12-3-12



GPR TEST LOCATION PLAN NCDOT U4432 Parcel 110 UST Survey Raleigh, Wake County, North Carolina
JOB NO.: 1054-12-390

FIGURE NO.
6



SCALE: AS SHOWN
 DRAWN BY: KDH
 CHECKED BY: DDB
 DATE: 12-3-12



GPR PROFILE EXAMPLES – LINES 02, 03, 015 AND 016
NCDOT U4432 Parcel 110 UST Survey
 Raleigh, Wake County, North Carolina

JOB NO.: 1054-12-390

FIGURE NO.

7

APPENDIX I

Photographic Log



1 View of site during geophysical survey – view is to the east towards S. Wilmington Street.



2 View of GPR survey – view is to the north towards intersection of S. Wilmington St. and Tryon Rd.



3 View of site during geophysical survey – view is to the east towards S. Wilmington St.



4 View of GPR survey – view is to the west along Tryon Rd.



**NCDOT Project U-4432 PSA
Parcel # 110 – Bannister Properties, LLC
Raleigh, Wake County, North Carolina**

S&ME Project No. 1054-12-390
Taken by: AC

Date Taken: 11/20/2012

APPENDIX II

Boring Logs

BORING LOG

Project Name: NCDOT Project U4422

Job No. 1054-12-390

Boring Number: B-1

Drilling method: Geoprobe® Direct Push

Sampling Personnel: Candy Elliott

Date Drilled: 11/29/2012

Depth to Groundwater: n/a

Total Depth: 10 ft. bgs.

STRATIFICATION

Depth (Feet)		Soil Description	PID Reading (ppm)	Sample No. and Depth	
From	To			Sample No.	Depth (Ft-BGS)
0	1.0	Asphalt			
1.0	2.0	ML: Silty sand, reddish brown, moist, firm	3.8		
2.0	3.0				
3.0	4.0		5.5		
4.0	5.0				
5.0	6.0		3.7	B-1	5.0-7.0
6.0	7.0				
7.0	8.0		3.1		
8.0	9.0				
9.0	10.0		4.9		
			<i>Boring terminated at 10.0 ft. bgs.</i>		

Notes:

1. Ft-BGS: Feet Below Ground Surface
2. PID: Photo-Ionization Detector
3. PPM: parts per million (volume/volume)

Boring Number: B-2

Drilling method: Geoprobe® Direct Push

Sampling Personnel: Candy Elliott

Date Drilled: 11/29/2012

Depth to Groundwater: n/a

Total Depth: 10 ft. bgs.

STRATIFICATION

Depth (Feet)		Soil Description	PID Reading (ppm)	Sample No. and Depth	
From	To			Sample No.	Depth (Ft-BGS)
0	1.0	Asphalt			
1.0	2.0	ML: Sandy silt, reddish brown, moist, hard Soft			
2.0	3.0		1.8		
3.0	4.0				
4.0	5.0		1.1	B-2	4.0-6.0
5.0	6.0				
6.0	7.0		3.2		
7.0	8.0				
8.0	9.0		1.1		
9.0	10.0				
			<i>Boring terminated at 10 ft. bgs.</i>		

Notes:

1. Ft-BGS: Feet Below Ground Surface
2. PID: Photo-Ionization Detector
3. PPM: parts per million (volume/volume)

BORING LOG

Project Name: NCDOT Project U4422
Job No. 1054-12-390

Boring Number: B-3
Sampling Personnel: Candy Elliott
Date Drilled: 11/29/2012
Depth to Groundwater: n/a
Total Depth: 10 ft. bgs.

Drilling method: Geoprobe® Direct Push

STRATIFICATION

Depth (Feet)		Soil Description	PID Reading (ppm)	Sample No. and Depth		
From	To			Sample No.	Depth (Ft-BGS)	
0	1.0	Asphalt				
1.0	2.0	ML: Sandy silt, reddish brown, moist, hard	2.1			
2.0	3.0					
3.0	4.0		0.8			
4.0	5.0					
5.0	6.0					
6.0	7.0			0.4	B-3	6.0-8.0
7.0	8.0		Firm			
8.0	9.0		Soft	1.3		
9.0	10.0					
<i>Boring terminated at 10 ft. bgs.</i>						

Notes:

1. Ft-BGS: Feet Below Ground Surface
2. PID: Photo-Ionization Detector
3. PPM: parts per million (volume/volume)

Boring Number: B-4
Sampling Personnel: Candy Elliott
Date Drilled: 11/29/2012
Depth to Groundwater: n/a
Total Depth: 10 ft. bgs

Drilling method: Geoprobe® Direct Push

STRATIFICATION

Depth (Feet)		Soil Description	PID Reading (ppm)	Sample No. and Depth		
From	To			Sample No.	Depth (Ft-BGS)	
0	1.0	Asphalt				
1.0	2.0	ML: Sandy silt, reddish brown, moist, hard	0.6			
2.0	3.0					
3.0	4.0		1.1			
4.0	5.0					
5.0	6.0			0.4	B-4	5.0-7.0
6.0	7.0					
7.0	8.0		Firm	2.6		
8.0	9.0					
9.0	10.0		0			
<i>Boring terminated at 10 ft. bgs.</i>						

Notes:

1. Ft-BGS: Feet Below Ground Surface
2. PID: Photo-Ionization Detector
3. PPM: parts per million (volume/volume)

BORING LOG

Project Name: NCDOT Project U4422
Job No. 1054-12-390

Boring Number: B-5
Sampling Personnel: Candy Elliott
Date Drilled: 11/29/2012
Depth to Groundwater: n/a
Total Depth: 10 ft. bgs.

Drilling method: Geoprobe® Direct Push

STRATIFICATION

Depth (Feet)		Soil Description	PID Reading (ppm)	Sample No. and Depth	
From	To			Sample No.	Depth (Ft-BGS)
0	1.0	Asphalt			
1.0	2.0	ML: Silt, reddish brown, moist, hard Soft	1.3		
2.0	3.0				
3.0	4.0		2.9		
4.0	5.0				
5.0	6.0		2.2	B-5	5.0-7.0
6.0	7.0				
7.0	8.0		3		
8.0	9.0				
9.0	10.0		1.5		
			<i>Boring terminated at 10 ft. bgs.</i>		

Notes:

1. Ft-BGS: Feet Below Ground Surface
2. PID: Photo-Ionization Detector
3. PPM: parts per million (volume/volume)

Boring Number: B-6
Sampling Personnel: Candy Elliott
Date Drilled: 11/29/2012
Depth to Groundwater: n/a
Total Depth: 10 ft. bgs.

Drilling method: Geoprobe® Direct Push

STRATIFICATION

Depth (Feet)		Soil Description	PID Reading (ppm)	Sample No. and Depth	
From	To			Sample No.	Depth (Ft-BGS)
0	1.0	Asphalt			
1.0	2.0	ML: Sandy silt, reddish brown, moist, hard	1.1		
2.0	3.0				
3.0	4.0		2.7		
4.0	5.0			B-6	4.0-6.0
5.0	6.0		4.5		
6.0	7.0				
7.0	8.0		1.2		
8.0	9.0				
9.0	10.0		0.4		
			<i>Boring terminated at 10 ft. bgs.</i>		

Notes:

1. Ft-BGS: Feet Below Ground Surface
2. PID: Photo-Ionization Detector
3. PPM: parts per million (volume/volume)

BORING LOG

Project Name: NCDOT Project U4422
Job No. 1054-12-390

Boring Number: B-7
Sampling Personnel: Candy Elliott
Date Drilled: 11/29/2012
Depth to Groundwater: n/a
Total Depth: 10 ft. bgs.

Drilling method: Geoprobe® Direct Push

STRATIFICATION

Depth (Feet)		Soil Description	PID Reading (ppm)	Sample No. and Depth	
From	To			Sample No.	Depth (Ft-BGS)
0	1.0	Asphalt			
1.0	2.0	ML: Sandy silt, reddish brown, moist, hard	0.3		
2.0	3.0				
3.0	4.0		3.4	B-7	3.0-5.0
4.0	5.0				
5.0	6.0		0.6		
6.0	7.0				
7.0	8.0		3		
8.0	9.0				
9.0	10.0		0.8		
			<i>Boring terminated at 10 ft. bgs.</i>		

Notes:

1. Ft-BGS: Feet Below Ground Surface
2. PID: Photo-Ionization Detector
3. PPM: parts per million (volume/volume)

Boring Number: B-8
Sampling Personnel: Candy Elliott
Date Drilled: 11/29/2012
Depth to Groundwater: n/a
Total Depth: 10 ft. bgs.

Drilling method: Geoprobe® Direct Push

STRATIFICATION

Depth (Feet)		Soil Description	PID Reading (ppm)	Sample No. and Depth	
From	To			Sample No.	Depth (Ft-BGS)
0	1.0	Asphalt			
1.0	2.0	ML: Silt, reddish brown, moist, very hard	1.6		
2.0	3.0				
3.0	4.0		3.3		
4.0	5.0				
5.0	6.0		0.3	B-8	5.0-7.0
6.0	7.0				
7.0	8.0		3.1		
8.0	9.0				
9.0	10.0		1.1		
			<i>Boring terminated at 10 ft. bgs.</i>		

Notes:

1. Ft-BGS: Feet Below Ground Surface
2. PID: Photo-Ionization Detector
3. PPM: parts per million (volume/volume)

BORING LOG

Project Name: NCDOT Project U4422
Job No. 1054-12-390

Boring Number: B-9
Sampling Personnel: Candy Elliott
Date Drilled: 11/29/2012
Depth to Groundwater: n/a
Total Depth: 10 ft. bgs.

Drilling method: Geoprobe® Direct Push

STRATIFICATION

Depth (Feet)		Soil Description	PID Reading (ppm)	Sample No. and Depth	
From	To			Sample No.	Depth (Ft-BGS)
0	1.0	Asphalt			
1.0	2.0	ML: Silt, reddish brown, hard, moist	1		
2.0	3.0				
3.0	4.0				
4.0	5.0	No recovery			
5.0	6.0				
6.0	7.0				
6.0	7.0	ML: silt, reddish brown, soft	1.3	B-9	6.0-8.0
7.0	8.0	Increasing sand			
8.0	9.0		0.9		
9.0	10.0		0.5		
<i>Boring terminated at 10 ft. bgs.</i>					

Notes:

1. Ft-BGS: Feet Below Ground Surface
2. PID: Photo-Ionization Detector
3. PPM: parts per million (volume/volume)

Boring Number: B-10
Sampling Personnel: Candy Elliott
Date Drilled: 11/29/2012
Depth to Groundwater: n/a
Total Depth: 10 ft. bgs.

Drilling method: Geoprobe® Direct Push

STRATIFICATION

Depth (Feet)		Soil Description	PID Reading (ppm)	Sample No. and Depth	
From	To			Sample No.	Depth (Ft-BGS)
0	1.0	OH: organic soil			
1.0	2.0	ML: Silt, reddish brown, very hard, moist	1.8	B-10	2.0-4.0
2.0	3.0				
3.0	4.0				
4.0	5.0				
5.0	6.0				
6.0	7.0	Soft	1.6		
7.0	8.0		0.4		
8.0	9.0				
9.0	10.0		2.1		
<i>Boring terminated at 10 ft. bgs.</i>					

Notes:

1. Ft-BGS: Feet Below Ground Surface
2. PID: Photo-Ionization Detector
3. PPM: parts per million (volume/volume)

APPENDIX III

Laboratory Analytical Report and Chain of Custody Form



Pace Analytical Services, Inc.
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Pace Analytical Services, Inc.
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Huntersville, NC 28078
(704)875-9092

December 07, 2012

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

RE: Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

Dear Chemical Engineer:

Enclosed are the analytical results for sample(s) received by the laboratory on November 30, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,

Kevin Herring

kevin.herring@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

Charlotte Certification IDs

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

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

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SAMPLE ANALYTE COUNT

Project: NCDOT 04432 33133.1.1
 Pace Project No.: 92140286

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92140286001	B-1	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	RGF	2	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92140286002	B-2	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	RGF	2	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92140286003	B-3	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	RGF	2	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92140286004	B-4	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	RGF	2	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92140286005	B-5	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	RGF	2	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92140286006	B-6	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	RGF	2	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92140286007	B-7	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	RGF	2	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92140286008	B-8	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	RGF	2	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92140286009	B-9	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	RGF	2	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	JEA	1	PASI-C
92140286010	B-10	EPA 8015 Modified	MEJ	2	PASI-C

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SAMPLE ANALYTE COUNT

Project: NCDOT 04432 33133.1.1
 Pace Project No.: 92140286

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8015 Modified	RGF	2	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	JEA	1	PASI-C

REPORT OF LABORATORY ANALYSIS

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HITS ONLY

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92140286001	B-1					
ASTM D2974-87	Percent Moisture	20.7 %		0.10	12/03/12 14:20	
92140286002	B-2					
ASTM D2974-87	Percent Moisture	23.2 %		0.10	12/03/12 14:20	
92140286003	B-3					
ASTM D2974-87	Percent Moisture	23.6 %		0.10	12/03/12 14:20	
92140286004	B-4					
ASTM D2974-87	Percent Moisture	25.1 %		0.10	12/03/12 14:26	
92140286005	B-5					
ASTM D2974-87	Percent Moisture	21.5 %		0.10	12/03/12 14:26	
92140286006	B-6					
ASTM D2974-87	Percent Moisture	29.0 %		0.10	12/03/12 14:26	
92140286007	B-7					
ASTM D2974-87	Percent Moisture	24.0 %		0.10	12/03/12 14:26	
92140286008	B-8					
ASTM D2974-87	Percent Moisture	21.4 %		0.10	12/03/12 14:26	
92140286009	B-9					
EPA 8015 Modified	Diesel Components	15.8 mg/kg		6.3	12/05/12 17:52	
ASTM D2974-87	Percent Moisture	20.6 %		0.10	12/03/12 14:26	
92140286010	B-10					
ASTM D2974-87	Percent Moisture	27.5 %		0.10	12/03/12 14:27	

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PROJECT NARRATIVE

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

Method: EPA 8015 Modified
Description: 8015 GCS THC-Diesel
Client: NCDOT East Central
Date: December 07, 2012

General Information:

10 samples were analyzed for EPA 8015 Modified. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Page 6 of 40

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PROJECT NARRATIVE

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

Method: EPA 8015 Modified
Description: Gasoline Range Organics
Client: NCDOT East Central
Date: December 07, 2012

General Information:

10 samples were analyzed for EPA 8015 Modified. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 5035A/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS



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PROJECT NARRATIVE

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

Method: EPA 8260
Description: 8260/5035A Volatile Organics
Client: NCDOT East Central
Date: December 07, 2012

General Information:

10 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

Page 8 of 40

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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-1 **Lab ID: 92140286001** Collected: 11/29/12 09:50 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.3	1	12/04/12 08:10	12/05/12 15:52	68334-30-5	
Surrogates								
n-Pentacosane (S)	84	%	41-119	1	12/04/12 08:10	12/05/12 15:52	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	6.3	1	12/05/12 17:50	12/05/12 23:33	8006-61-9	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-167	1	12/05/12 17:50	12/05/12 23:33	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	105	1		12/04/12 19:33	67-64-1	
Benzene	ND	ug/kg	5.2	1		12/04/12 19:33	71-43-2	
Bromobenzene	ND	ug/kg	5.2	1		12/04/12 19:33	108-86-1	
Bromochloromethane	ND	ug/kg	5.2	1		12/04/12 19:33	74-97-5	
Bromodichloromethane	ND	ug/kg	5.2	1		12/04/12 19:33	75-27-4	
Bromoform	ND	ug/kg	5.2	1		12/04/12 19:33	75-25-2	
Bromomethane	ND	ug/kg	10.5	1		12/04/12 19:33	74-83-9	
2-Butanone (MEK)	ND	ug/kg	105	1		12/04/12 19:33	78-93-3	
n-Butylbenzene	ND	ug/kg	5.2	1		12/04/12 19:33	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.2	1		12/04/12 19:33	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.2	1		12/04/12 19:33	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.2	1		12/04/12 19:33	56-23-5	
Chlorobenzene	ND	ug/kg	5.2	1		12/04/12 19:33	108-90-7	
Chloroethane	ND	ug/kg	10.5	1		12/04/12 19:33	75-00-3	
Chloroform	ND	ug/kg	5.2	1		12/04/12 19:33	67-66-3	
Chloromethane	ND	ug/kg	10.5	1		12/04/12 19:33	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.2	1		12/04/12 19:33	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.2	1		12/04/12 19:33	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.2	1		12/04/12 19:33	96-12-8	
Dibromochloromethane	ND	ug/kg	5.2	1		12/04/12 19:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	1		12/04/12 19:33	106-93-4	
Dibromomethane	ND	ug/kg	5.2	1		12/04/12 19:33	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.2	1		12/04/12 19:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.2	1		12/04/12 19:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.2	1		12/04/12 19:33	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.5	1		12/04/12 19:33	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.2	1		12/04/12 19:33	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.2	1		12/04/12 19:33	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.2	1		12/04/12 19:33	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.2	1		12/04/12 19:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.2	1		12/04/12 19:33	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.2	1		12/04/12 19:33	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.2	1		12/04/12 19:33	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.2	1		12/04/12 19:33	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.2	1		12/04/12 19:33	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.2	1		12/04/12 19:33	10061-01-5	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-1 **Lab ID: 92140286001** Collected: 11/29/12 09:50 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
trans-1,3-Dichloropropene	ND	ug/kg	5.2	1		12/04/12 19:33	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.2	1		12/04/12 19:33	108-20-3	
Ethylbenzene	ND	ug/kg	5.2	1		12/04/12 19:33	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.2	1		12/04/12 19:33	87-68-3	
2-Hexanone	ND	ug/kg	52.5	1		12/04/12 19:33	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	1		12/04/12 19:33	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.2	1		12/04/12 19:33	99-87-6	
Methylene Chloride	ND	ug/kg	21.0	1		12/04/12 19:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52.5	1		12/04/12 19:33	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.2	1		12/04/12 19:33	1634-04-4	
Naphthalene	ND	ug/kg	5.2	1		12/04/12 19:33	91-20-3	
n-Propylbenzene	ND	ug/kg	5.2	1		12/04/12 19:33	103-65-1	
Styrene	ND	ug/kg	5.2	1		12/04/12 19:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.2	1		12/04/12 19:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	1		12/04/12 19:33	79-34-5	
Tetrachloroethene	ND	ug/kg	5.2	1		12/04/12 19:33	127-18-4	
Toluene	ND	ug/kg	5.2	1		12/04/12 19:33	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.2	1		12/04/12 19:33	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.2	1		12/04/12 19:33	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.2	1		12/04/12 19:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.2	1		12/04/12 19:33	79-00-5	
Trichloroethene	ND	ug/kg	5.2	1		12/04/12 19:33	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.2	1		12/04/12 19:33	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.2	1		12/04/12 19:33	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	1		12/04/12 19:33	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	1		12/04/12 19:33	108-67-8	
Vinyl acetate	ND	ug/kg	52.5	1		12/04/12 19:33	108-05-4	
Vinyl chloride	ND	ug/kg	10.5	1		12/04/12 19:33	75-01-4	
Xylene (Total)	ND	ug/kg	10.5	1		12/04/12 19:33	1330-20-7	
m&p-Xylene	ND	ug/kg	10.5	1		12/04/12 19:33	179601-23-1	
o-Xylene	ND	ug/kg	5.2	1		12/04/12 19:33	95-47-6	
Surrogates								
Dibromofluoromethane (S)	94 %		70-130	1		12/04/12 19:33	1868-53-7	
Toluene-d8 (S)	99 %		70-130	1		12/04/12 19:33	2037-26-5	
4-Bromofluorobenzene (S)	95 %		70-130	1		12/04/12 19:33	460-00-4	
1,2-Dichloroethane-d4 (S)	88 %		70-132	1		12/04/12 19:33	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	20.7 %		0.10	1		12/03/12 14:20		

ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-2 **Lab ID: 92140286002** Collected: 11/29/12 10:15 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.5	1	12/04/12 08:10	12/05/12 15:52	68334-30-5	
Surrogates								
n-Pentacosane (S)	79	%	41-119	1	12/04/12 08:10	12/05/12 15:52	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	7.9	1	12/05/12 17:50	12/05/12 23:56	8006-61-9	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-167	1	12/05/12 17:50	12/05/12 23:56	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	127	1		12/04/12 19:51	67-64-1	
Benzene	ND	ug/kg	6.4	1		12/04/12 19:51	71-43-2	
Bromobenzene	ND	ug/kg	6.4	1		12/04/12 19:51	108-86-1	
Bromochloromethane	ND	ug/kg	6.4	1		12/04/12 19:51	74-97-5	
Bromodichloromethane	ND	ug/kg	6.4	1		12/04/12 19:51	75-27-4	
Bromoform	ND	ug/kg	6.4	1		12/04/12 19:51	75-25-2	
Bromomethane	ND	ug/kg	12.7	1		12/04/12 19:51	74-83-9	
2-Butanone (MEK)	ND	ug/kg	127	1		12/04/12 19:51	78-93-3	
n-Butylbenzene	ND	ug/kg	6.4	1		12/04/12 19:51	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.4	1		12/04/12 19:51	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.4	1		12/04/12 19:51	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.4	1		12/04/12 19:51	56-23-5	
Chlorobenzene	ND	ug/kg	6.4	1		12/04/12 19:51	108-90-7	
Chloroethane	ND	ug/kg	12.7	1		12/04/12 19:51	75-00-3	
Chloroform	ND	ug/kg	6.4	1		12/04/12 19:51	67-66-3	
Chloromethane	ND	ug/kg	12.7	1		12/04/12 19:51	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.4	1		12/04/12 19:51	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.4	1		12/04/12 19:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.4	1		12/04/12 19:51	96-12-8	
Dibromochloromethane	ND	ug/kg	6.4	1		12/04/12 19:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.4	1		12/04/12 19:51	106-93-4	
Dibromomethane	ND	ug/kg	6.4	1		12/04/12 19:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.4	1		12/04/12 19:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.4	1		12/04/12 19:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.4	1		12/04/12 19:51	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.7	1		12/04/12 19:51	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.4	1		12/04/12 19:51	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.4	1		12/04/12 19:51	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.4	1		12/04/12 19:51	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.4	1		12/04/12 19:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.4	1		12/04/12 19:51	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.4	1		12/04/12 19:51	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.4	1		12/04/12 19:51	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.4	1		12/04/12 19:51	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.4	1		12/04/12 19:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.4	1		12/04/12 19:51	10061-01-5	

ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-2 **Lab ID: 92140286002** Collected: 11/29/12 10:15 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
trans-1,3-Dichloropropene	ND	ug/kg	6.4	1		12/04/12 19:51	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.4	1		12/04/12 19:51	108-20-3	
Ethylbenzene	ND	ug/kg	6.4	1		12/04/12 19:51	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.4	1		12/04/12 19:51	87-68-3	
2-Hexanone	ND	ug/kg	63.6	1		12/04/12 19:51	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.4	1		12/04/12 19:51	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.4	1		12/04/12 19:51	99-87-6	
Methylene Chloride	ND	ug/kg	25.4	1		12/04/12 19:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	63.6	1		12/04/12 19:51	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.4	1		12/04/12 19:51	1634-04-4	
Naphthalene	ND	ug/kg	6.4	1		12/04/12 19:51	91-20-3	
n-Propylbenzene	ND	ug/kg	6.4	1		12/04/12 19:51	103-65-1	
Styrene	ND	ug/kg	6.4	1		12/04/12 19:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.4	1		12/04/12 19:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.4	1		12/04/12 19:51	79-34-5	
Tetrachloroethene	ND	ug/kg	6.4	1		12/04/12 19:51	127-18-4	
Toluene	ND	ug/kg	6.4	1		12/04/12 19:51	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.4	1		12/04/12 19:51	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.4	1		12/04/12 19:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.4	1		12/04/12 19:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.4	1		12/04/12 19:51	79-00-5	
Trichloroethene	ND	ug/kg	6.4	1		12/04/12 19:51	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.4	1		12/04/12 19:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.4	1		12/04/12 19:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.4	1		12/04/12 19:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.4	1		12/04/12 19:51	108-67-8	
Vinyl acetate	ND	ug/kg	63.6	1		12/04/12 19:51	108-05-4	
Vinyl chloride	ND	ug/kg	12.7	1		12/04/12 19:51	75-01-4	
Xylene (Total)	ND	ug/kg	12.7	1		12/04/12 19:51	1330-20-7	
m&p-Xylene	ND	ug/kg	12.7	1		12/04/12 19:51	179601-23-1	
o-Xylene	ND	ug/kg	6.4	1		12/04/12 19:51	95-47-6	
Surrogates								
Dibromofluoromethane (S)	95 %		70-130	1		12/04/12 19:51	1868-53-7	
Toluene-d8 (S)	96 %		70-130	1		12/04/12 19:51	2037-26-5	
4-Bromofluorobenzene (S)	96 %		70-130	1		12/04/12 19:51	460-00-4	
1,2-Dichloroethane-d4 (S)	89 %		70-132	1		12/04/12 19:51	17060-07-0	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture	23.2 %		0.10	1		12/03/12 14:20		
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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-3 **Lab ID: 92140286003** Collected: 11/29/12 10:30 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.5	1	12/04/12 08:10	12/05/12 16:22	68334-30-5	
Surrogates								
n-Pentacosane (S)	83	%	41-119	1	12/04/12 08:10	12/05/12 16:22	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	9.2	1	12/05/12 17:50	12/06/12 00:19	8006-61-9	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-167	1	12/05/12 17:50	12/06/12 00:19	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	115	1		12/04/12 20:10	67-64-1	
Benzene	ND	ug/kg	5.7	1		12/04/12 20:10	71-43-2	
Bromobenzene	ND	ug/kg	5.7	1		12/04/12 20:10	108-86-1	
Bromochloromethane	ND	ug/kg	5.7	1		12/04/12 20:10	74-97-5	
Bromodichloromethane	ND	ug/kg	5.7	1		12/04/12 20:10	75-27-4	
Bromoform	ND	ug/kg	5.7	1		12/04/12 20:10	75-25-2	
Bromomethane	ND	ug/kg	11.5	1		12/04/12 20:10	74-83-9	
2-Butanone (MEK)	ND	ug/kg	115	1		12/04/12 20:10	78-93-3	
n-Butylbenzene	ND	ug/kg	5.7	1		12/04/12 20:10	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.7	1		12/04/12 20:10	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.7	1		12/04/12 20:10	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.7	1		12/04/12 20:10	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	1		12/04/12 20:10	108-90-7	
Chloroethane	ND	ug/kg	11.5	1		12/04/12 20:10	75-00-3	
Chloroform	ND	ug/kg	5.7	1		12/04/12 20:10	67-66-3	
Chloromethane	ND	ug/kg	11.5	1		12/04/12 20:10	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.7	1		12/04/12 20:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.7	1		12/04/12 20:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	1		12/04/12 20:10	96-12-8	
Dibromochloromethane	ND	ug/kg	5.7	1		12/04/12 20:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	1		12/04/12 20:10	106-93-4	
Dibromomethane	ND	ug/kg	5.7	1		12/04/12 20:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.7	1		12/04/12 20:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	1		12/04/12 20:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	1		12/04/12 20:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.5	1		12/04/12 20:10	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.7	1		12/04/12 20:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	1		12/04/12 20:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.7	1		12/04/12 20:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1		12/04/12 20:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	1		12/04/12 20:10	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.7	1		12/04/12 20:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.7	1		12/04/12 20:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.7	1		12/04/12 20:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.7	1		12/04/12 20:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.7	1		12/04/12 20:10	10061-01-5	

Date: 12/07/2012 02:25 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-3 **Lab ID: 92140286003** Collected: 11/29/12 10:30 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1		12/04/12 20:10	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.7	1		12/04/12 20:10	108-20-3	
Ethylbenzene	ND	ug/kg	5.7	1		12/04/12 20:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	1		12/04/12 20:10	87-68-3	
2-Hexanone	ND	ug/kg	57.5	1		12/04/12 20:10	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	1		12/04/12 20:10	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.7	1		12/04/12 20:10	99-87-6	
Methylene Chloride	ND	ug/kg	23.0	1		12/04/12 20:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.5	1		12/04/12 20:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.7	1		12/04/12 20:10	1634-04-4	
Naphthalene	ND	ug/kg	5.7	1		12/04/12 20:10	91-20-3	
n-Propylbenzene	ND	ug/kg	5.7	1		12/04/12 20:10	103-65-1	
Styrene	ND	ug/kg	5.7	1		12/04/12 20:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	1		12/04/12 20:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	1		12/04/12 20:10	79-34-5	
Tetrachloroethene	ND	ug/kg	5.7	1		12/04/12 20:10	127-18-4	
Toluene	ND	ug/kg	5.7	1		12/04/12 20:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	1		12/04/12 20:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1		12/04/12 20:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.7	1		12/04/12 20:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.7	1		12/04/12 20:10	79-00-5	
Trichloroethene	ND	ug/kg	5.7	1		12/04/12 20:10	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.7	1		12/04/12 20:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.7	1		12/04/12 20:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	1		12/04/12 20:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	1		12/04/12 20:10	108-67-8	
Vinyl acetate	ND	ug/kg	57.5	1		12/04/12 20:10	108-05-4	
Vinyl chloride	ND	ug/kg	11.5	1		12/04/12 20:10	75-01-4	
Xylene (Total)	ND	ug/kg	11.5	1		12/04/12 20:10	1330-20-7	
m&p-Xylene	ND	ug/kg	11.5	1		12/04/12 20:10	179601-23-1	
o-Xylene	ND	ug/kg	5.7	1		12/04/12 20:10	95-47-6	
Surrogates								
Dibromofluoromethane (S)	95 %		70-130	1		12/04/12 20:10	1868-53-7	
Toluene-d8 (S)	99 %		70-130	1		12/04/12 20:10	2037-26-5	
4-Bromofluorobenzene (S)	94 %		70-130	1		12/04/12 20:10	460-00-4	
1,2-Dichloroethane-d4 (S)	82 %		70-132	1		12/04/12 20:10	17060-07-0	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture	23.6 %		0.10	1		12/03/12 14:20		
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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-4 **Lab ID: 92140286004** Collected: 11/29/12 10:45 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.7	1	12/04/12 08:10	12/05/12 16:22	68334-30-5	
Surrogates								
n-Pentacosane (S)	79	%	41-119	1	12/04/12 08:10	12/05/12 16:22	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	7.1	1	12/05/12 17:50	12/06/12 00:42	8006-61-9	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-167	1	12/05/12 17:50	12/06/12 00:42	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	153	1		12/04/12 20:28	67-64-1	
Benzene	ND	ug/kg	7.7	1		12/04/12 20:28	71-43-2	
Bromobenzene	ND	ug/kg	7.7	1		12/04/12 20:28	108-86-1	
Bromochloromethane	ND	ug/kg	7.7	1		12/04/12 20:28	74-97-5	
Bromodichloromethane	ND	ug/kg	7.7	1		12/04/12 20:28	75-27-4	
Bromoform	ND	ug/kg	7.7	1		12/04/12 20:28	75-25-2	
Bromomethane	ND	ug/kg	15.3	1		12/04/12 20:28	74-83-9	
2-Butanone (MEK)	ND	ug/kg	153	1		12/04/12 20:28	78-93-3	
n-Butylbenzene	ND	ug/kg	7.7	1		12/04/12 20:28	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.7	1		12/04/12 20:28	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.7	1		12/04/12 20:28	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.7	1		12/04/12 20:28	56-23-5	
Chlorobenzene	ND	ug/kg	7.7	1		12/04/12 20:28	108-90-7	
Chloroethane	ND	ug/kg	15.3	1		12/04/12 20:28	75-00-3	
Chloroform	ND	ug/kg	7.7	1		12/04/12 20:28	67-66-3	
Chloromethane	ND	ug/kg	15.3	1		12/04/12 20:28	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.7	1		12/04/12 20:28	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.7	1		12/04/12 20:28	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.7	1		12/04/12 20:28	96-12-8	
Dibromochloromethane	ND	ug/kg	7.7	1		12/04/12 20:28	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.7	1		12/04/12 20:28	106-93-4	
Dibromomethane	ND	ug/kg	7.7	1		12/04/12 20:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.7	1		12/04/12 20:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.7	1		12/04/12 20:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.7	1		12/04/12 20:28	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	15.3	1		12/04/12 20:28	75-71-8	
1,1-Dichloroethane	ND	ug/kg	7.7	1		12/04/12 20:28	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.7	1		12/04/12 20:28	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.7	1		12/04/12 20:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	7.7	1		12/04/12 20:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.7	1		12/04/12 20:28	156-60-5	
1,2-Dichloropropane	ND	ug/kg	7.7	1		12/04/12 20:28	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.7	1		12/04/12 20:28	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.7	1		12/04/12 20:28	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.7	1		12/04/12 20:28	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.7	1		12/04/12 20:28	10061-01-5	

Date: 12/07/2012 02:25 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-4 **Lab ID: 92140286004** Collected: 11/29/12 10:45 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
trans-1,3-Dichloropropene	ND	ug/kg	7.7	1		12/04/12 20:28	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.7	1		12/04/12 20:28	108-20-3	
Ethylbenzene	ND	ug/kg	7.7	1		12/04/12 20:28	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	7.7	1		12/04/12 20:28	87-68-3	
2-Hexanone	ND	ug/kg	76.7	1		12/04/12 20:28	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.7	1		12/04/12 20:28	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.7	1		12/04/12 20:28	99-87-6	
Methylene Chloride	ND	ug/kg	30.7	1		12/04/12 20:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	76.7	1		12/04/12 20:28	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	7.7	1		12/04/12 20:28	1634-04-4	
Naphthalene	ND	ug/kg	7.7	1		12/04/12 20:28	91-20-3	
n-Propylbenzene	ND	ug/kg	7.7	1		12/04/12 20:28	103-65-1	
Styrene	ND	ug/kg	7.7	1		12/04/12 20:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.7	1		12/04/12 20:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.7	1		12/04/12 20:28	79-34-5	
Tetrachloroethene	ND	ug/kg	7.7	1		12/04/12 20:28	127-18-4	
Toluene	ND	ug/kg	7.7	1		12/04/12 20:28	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.7	1		12/04/12 20:28	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.7	1		12/04/12 20:28	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.7	1		12/04/12 20:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.7	1		12/04/12 20:28	79-00-5	
Trichloroethene	ND	ug/kg	7.7	1		12/04/12 20:28	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.7	1		12/04/12 20:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.7	1		12/04/12 20:28	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.7	1		12/04/12 20:28	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.7	1		12/04/12 20:28	108-67-8	
Vinyl acetate	ND	ug/kg	76.7	1		12/04/12 20:28	108-05-4	
Vinyl chloride	ND	ug/kg	15.3	1		12/04/12 20:28	75-01-4	
Xylene (Total)	ND	ug/kg	15.3	1		12/04/12 20:28	1330-20-7	
m&p-Xylene	ND	ug/kg	15.3	1		12/04/12 20:28	179601-23-1	
o-Xylene	ND	ug/kg	7.7	1		12/04/12 20:28	95-47-6	
Surrogates								
Dibromofluoromethane (S)	96 %		70-130	1		12/04/12 20:28	1868-53-7	
Toluene-d8 (S)	99 %		70-130	1		12/04/12 20:28	2037-26-5	
4-Bromofluorobenzene (S)	96 %		70-130	1		12/04/12 20:28	460-00-4	
1,2-Dichloroethane-d4 (S)	87 %		70-132	1		12/04/12 20:28	17060-07-0	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture	25.1 %		0.10	1		12/03/12 14:26		
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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-5 **Lab ID: 92140286005** Collected: 11/29/12 11:00 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.4	1	12/04/12 08:10	12/05/12 16:52	68334-30-5	
Surrogates								
n-Pentacosane (S)	80	%	41-119	1	12/04/12 08:10	12/05/12 16:52	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	6.5	1	12/05/12 17:50	12/06/12 01:05	8006-61-9	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-167	1	12/05/12 17:50	12/06/12 01:05	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	110	1		12/04/12 20:47	67-64-1	
Benzene	ND	ug/kg	5.5	1		12/04/12 20:47	71-43-2	
Bromobenzene	ND	ug/kg	5.5	1		12/04/12 20:47	108-86-1	
Bromochloromethane	ND	ug/kg	5.5	1		12/04/12 20:47	74-97-5	
Bromodichloromethane	ND	ug/kg	5.5	1		12/04/12 20:47	75-27-4	
Bromoform	ND	ug/kg	5.5	1		12/04/12 20:47	75-25-2	
Bromomethane	ND	ug/kg	11.0	1		12/04/12 20:47	74-83-9	
2-Butanone (MEK)	ND	ug/kg	110	1		12/04/12 20:47	78-93-3	
n-Butylbenzene	ND	ug/kg	5.5	1		12/04/12 20:47	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.5	1		12/04/12 20:47	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.5	1		12/04/12 20:47	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.5	1		12/04/12 20:47	56-23-5	
Chlorobenzene	ND	ug/kg	5.5	1		12/04/12 20:47	108-90-7	
Chloroethane	ND	ug/kg	11.0	1		12/04/12 20:47	75-00-3	
Chloroform	ND	ug/kg	5.5	1		12/04/12 20:47	67-66-3	
Chloromethane	ND	ug/kg	11.0	1		12/04/12 20:47	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.5	1		12/04/12 20:47	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.5	1		12/04/12 20:47	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5	1		12/04/12 20:47	96-12-8	
Dibromochloromethane	ND	ug/kg	5.5	1		12/04/12 20:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5	1		12/04/12 20:47	106-93-4	
Dibromomethane	ND	ug/kg	5.5	1		12/04/12 20:47	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.5	1		12/04/12 20:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.5	1		12/04/12 20:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.5	1		12/04/12 20:47	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.0	1		12/04/12 20:47	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.5	1		12/04/12 20:47	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.5	1		12/04/12 20:47	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.5	1		12/04/12 20:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.5	1		12/04/12 20:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.5	1		12/04/12 20:47	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.5	1		12/04/12 20:47	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.5	1		12/04/12 20:47	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.5	1		12/04/12 20:47	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.5	1		12/04/12 20:47	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.5	1		12/04/12 20:47	10061-01-5	

Date: 12/07/2012 02:25 PM

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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-5 **Lab ID: 92140286005** Collected: 11/29/12 11:00 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
trans-1,3-Dichloropropene	ND	ug/kg	5.5	1		12/04/12 20:47	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.5	1		12/04/12 20:47	108-20-3	
Ethylbenzene	ND	ug/kg	5.5	1		12/04/12 20:47	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	1		12/04/12 20:47	87-68-3	
2-Hexanone	ND	ug/kg	55.0	1		12/04/12 20:47	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	1		12/04/12 20:47	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.5	1		12/04/12 20:47	99-87-6	
Methylene Chloride	ND	ug/kg	22.0	1		12/04/12 20:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.0	1		12/04/12 20:47	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.5	1		12/04/12 20:47	1634-04-4	
Naphthalene	ND	ug/kg	5.5	1		12/04/12 20:47	91-20-3	
n-Propylbenzene	ND	ug/kg	5.5	1		12/04/12 20:47	103-65-1	
Styrene	ND	ug/kg	5.5	1		12/04/12 20:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	1		12/04/12 20:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5	1		12/04/12 20:47	79-34-5	
Tetrachloroethene	ND	ug/kg	5.5	1		12/04/12 20:47	127-18-4	
Toluene	ND	ug/kg	5.5	1		12/04/12 20:47	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	1		12/04/12 20:47	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1		12/04/12 20:47	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.5	1		12/04/12 20:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.5	1		12/04/12 20:47	79-00-5	
Trichloroethene	ND	ug/kg	5.5	1		12/04/12 20:47	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.5	1		12/04/12 20:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.5	1		12/04/12 20:47	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	1		12/04/12 20:47	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	1		12/04/12 20:47	108-67-8	
Vinyl acetate	ND	ug/kg	55.0	1		12/04/12 20:47	108-05-4	
Vinyl chloride	ND	ug/kg	11.0	1		12/04/12 20:47	75-01-4	
Xylene (Total)	ND	ug/kg	11.0	1		12/04/12 20:47	1330-20-7	
m&p-Xylene	ND	ug/kg	11.0	1		12/04/12 20:47	179601-23-1	
o-Xylene	ND	ug/kg	5.5	1		12/04/12 20:47	95-47-6	
Surrogates								
Dibromofluoromethane (S)	99 %		70-130	1		12/04/12 20:47	1868-53-7	
Toluene-d8 (S)	99 %		70-130	1		12/04/12 20:47	2037-26-5	
4-Bromofluorobenzene (S)	99 %		70-130	1		12/04/12 20:47	460-00-4	
1,2-Dichloroethane-d4 (S)	86 %		70-132	1		12/04/12 20:47	17060-07-0	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture	21.5 %		0.10	1		12/03/12 14:26		
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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-6 **Lab ID: 92140286006** Collected: 11/29/12 11:30 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	7.0	1	12/04/12 08:10	12/05/12 16:52	68334-30-5	
Surrogates								
n-Pentacosane (S)	81	%	41-119	1	12/04/12 08:10	12/05/12 16:52	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	8.1	1	12/05/12 17:50	12/06/12 01:28	8006-61-9	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-167	1	12/05/12 17:50	12/06/12 01:28	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	135	1		12/04/12 21:05	67-64-1	
Benzene	ND	ug/kg	6.7	1		12/04/12 21:05	71-43-2	
Bromobenzene	ND	ug/kg	6.7	1		12/04/12 21:05	108-86-1	
Bromochloromethane	ND	ug/kg	6.7	1		12/04/12 21:05	74-97-5	
Bromodichloromethane	ND	ug/kg	6.7	1		12/04/12 21:05	75-27-4	
Bromoform	ND	ug/kg	6.7	1		12/04/12 21:05	75-25-2	
Bromomethane	ND	ug/kg	13.5	1		12/04/12 21:05	74-83-9	
2-Butanone (MEK)	ND	ug/kg	135	1		12/04/12 21:05	78-93-3	
n-Butylbenzene	ND	ug/kg	6.7	1		12/04/12 21:05	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.7	1		12/04/12 21:05	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.7	1		12/04/12 21:05	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.7	1		12/04/12 21:05	56-23-5	
Chlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:05	108-90-7	
Chloroethane	ND	ug/kg	13.5	1		12/04/12 21:05	75-00-3	
Chloroform	ND	ug/kg	6.7	1		12/04/12 21:05	67-66-3	
Chloromethane	ND	ug/kg	13.5	1		12/04/12 21:05	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.7	1		12/04/12 21:05	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.7	1		12/04/12 21:05	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.7	1		12/04/12 21:05	96-12-8	
Dibromochloromethane	ND	ug/kg	6.7	1		12/04/12 21:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.7	1		12/04/12 21:05	106-93-4	
Dibromomethane	ND	ug/kg	6.7	1		12/04/12 21:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:05	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.5	1		12/04/12 21:05	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.7	1		12/04/12 21:05	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.7	1		12/04/12 21:05	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.7	1		12/04/12 21:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.7	1		12/04/12 21:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.7	1		12/04/12 21:05	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.7	1		12/04/12 21:05	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.7	1		12/04/12 21:05	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.7	1		12/04/12 21:05	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.7	1		12/04/12 21:05	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.7	1		12/04/12 21:05	10061-01-5	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-6 **Lab ID: 92140286006** Collected: 11/29/12 11:30 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
trans-1,3-Dichloropropene	ND	ug/kg	6.7	1		12/04/12 21:05	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.7	1		12/04/12 21:05	108-20-3	
Ethylbenzene	ND	ug/kg	6.7	1		12/04/12 21:05	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.7	1		12/04/12 21:05	87-68-3	
2-Hexanone	ND	ug/kg	67.4	1		12/04/12 21:05	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.7	1		12/04/12 21:05	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.7	1		12/04/12 21:05	99-87-6	
Methylene Chloride	ND	ug/kg	27.0	1		12/04/12 21:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	67.4	1		12/04/12 21:05	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.7	1		12/04/12 21:05	1634-04-4	
Naphthalene	ND	ug/kg	6.7	1		12/04/12 21:05	91-20-3	
n-Propylbenzene	ND	ug/kg	6.7	1		12/04/12 21:05	103-65-1	
Styrene	ND	ug/kg	6.7	1		12/04/12 21:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.7	1		12/04/12 21:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.7	1		12/04/12 21:05	79-34-5	
Tetrachloroethene	ND	ug/kg	6.7	1		12/04/12 21:05	127-18-4	
Toluene	ND	ug/kg	6.7	1		12/04/12 21:05	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:05	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:05	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.7	1		12/04/12 21:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.7	1		12/04/12 21:05	79-00-5	
Trichloroethene	ND	ug/kg	6.7	1		12/04/12 21:05	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.7	1		12/04/12 21:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.7	1		12/04/12 21:05	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.7	1		12/04/12 21:05	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.7	1		12/04/12 21:05	108-67-8	
Vinyl acetate	ND	ug/kg	67.4	1		12/04/12 21:05	108-05-4	
Vinyl chloride	ND	ug/kg	13.5	1		12/04/12 21:05	75-01-4	
Xylene (Total)	ND	ug/kg	13.5	1		12/04/12 21:05	1330-20-7	
m&p-Xylene	ND	ug/kg	13.5	1		12/04/12 21:05	179601-23-1	
o-Xylene	ND	ug/kg	6.7	1		12/04/12 21:05	95-47-6	
Surrogates								
Dibromofluoromethane (S)	98 %		70-130	1		12/04/12 21:05	1868-53-7	
Toluene-d8 (S)	99 %		70-130	1		12/04/12 21:05	2037-26-5	
4-Bromofluorobenzene (S)	98 %		70-130	1		12/04/12 21:05	460-00-4	
1,2-Dichloroethane-d4 (S)	87 %		70-132	1		12/04/12 21:05	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	29.0 %		0.10	1		12/03/12 14:26		

ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-7 **Lab ID: 92140286007** Collected: 11/29/12 11:47 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.6	1	12/04/12 08:10	12/05/12 17:22	68334-30-5	
Surrogates								
n-Pentacosane (S)	79	%	41-119	1	12/04/12 08:10	12/05/12 17:22	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	8.2	1	12/05/12 17:50	12/06/12 01:51	8006-61-9	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-167	1	12/05/12 17:50	12/06/12 01:51	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	133	1		12/04/12 21:24	67-64-1	
Benzene	ND	ug/kg	6.7	1		12/04/12 21:24	71-43-2	
Bromobenzene	ND	ug/kg	6.7	1		12/04/12 21:24	108-86-1	
Bromochloromethane	ND	ug/kg	6.7	1		12/04/12 21:24	74-97-5	
Bromodichloromethane	ND	ug/kg	6.7	1		12/04/12 21:24	75-27-4	
Bromoform	ND	ug/kg	6.7	1		12/04/12 21:24	75-25-2	
Bromomethane	ND	ug/kg	13.3	1		12/04/12 21:24	74-83-9	
2-Butanone (MEK)	ND	ug/kg	133	1		12/04/12 21:24	78-93-3	
n-Butylbenzene	ND	ug/kg	6.7	1		12/04/12 21:24	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.7	1		12/04/12 21:24	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.7	1		12/04/12 21:24	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.7	1		12/04/12 21:24	56-23-5	
Chlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:24	108-90-7	
Chloroethane	ND	ug/kg	13.3	1		12/04/12 21:24	75-00-3	
Chloroform	ND	ug/kg	6.7	1		12/04/12 21:24	67-66-3	
Chloromethane	ND	ug/kg	13.3	1		12/04/12 21:24	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.7	1		12/04/12 21:24	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.7	1		12/04/12 21:24	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.7	1		12/04/12 21:24	96-12-8	
Dibromochloromethane	ND	ug/kg	6.7	1		12/04/12 21:24	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.7	1		12/04/12 21:24	106-93-4	
Dibromomethane	ND	ug/kg	6.7	1		12/04/12 21:24	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:24	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.3	1		12/04/12 21:24	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.7	1		12/04/12 21:24	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.7	1		12/04/12 21:24	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.7	1		12/04/12 21:24	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.7	1		12/04/12 21:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.7	1		12/04/12 21:24	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.7	1		12/04/12 21:24	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.7	1		12/04/12 21:24	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.7	1		12/04/12 21:24	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.7	1		12/04/12 21:24	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.7	1		12/04/12 21:24	10061-01-5	

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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-7 **Lab ID: 92140286007** Collected: 11/29/12 11:47 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
trans-1,3-Dichloropropene	ND	ug/kg	6.7	1		12/04/12 21:24	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.7	1		12/04/12 21:24	108-20-3	
Ethylbenzene	ND	ug/kg	6.7	1		12/04/12 21:24	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.7	1		12/04/12 21:24	87-68-3	
2-Hexanone	ND	ug/kg	66.7	1		12/04/12 21:24	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.7	1		12/04/12 21:24	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.7	1		12/04/12 21:24	99-87-6	
Methylene Chloride	ND	ug/kg	26.7	1		12/04/12 21:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	66.7	1		12/04/12 21:24	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.7	1		12/04/12 21:24	1634-04-4	
Naphthalene	ND	ug/kg	6.7	1		12/04/12 21:24	91-20-3	
n-Propylbenzene	ND	ug/kg	6.7	1		12/04/12 21:24	103-65-1	
Styrene	ND	ug/kg	6.7	1		12/04/12 21:24	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.7	1		12/04/12 21:24	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.7	1		12/04/12 21:24	79-34-5	
Tetrachloroethene	ND	ug/kg	6.7	1		12/04/12 21:24	127-18-4	
Toluene	ND	ug/kg	6.7	1		12/04/12 21:24	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:24	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.7	1		12/04/12 21:24	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.7	1		12/04/12 21:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.7	1		12/04/12 21:24	79-00-5	
Trichloroethene	ND	ug/kg	6.7	1		12/04/12 21:24	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.7	1		12/04/12 21:24	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.7	1		12/04/12 21:24	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.7	1		12/04/12 21:24	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.7	1		12/04/12 21:24	108-67-8	
Vinyl acetate	ND	ug/kg	66.7	1		12/04/12 21:24	108-05-4	
Vinyl chloride	ND	ug/kg	13.3	1		12/04/12 21:24	75-01-4	
Xylene (Total)	ND	ug/kg	13.3	1		12/04/12 21:24	1330-20-7	
m&p-Xylene	ND	ug/kg	13.3	1		12/04/12 21:24	179601-23-1	
o-Xylene	ND	ug/kg	6.7	1		12/04/12 21:24	95-47-6	
Surrogates								
Dibromofluoromethane (S)	97 %		70-130	1		12/04/12 21:24	1868-53-7	
Toluene-d8 (S)	96 %		70-130	1		12/04/12 21:24	2037-26-5	
4-Bromofluorobenzene (S)	98 %		70-130	1		12/04/12 21:24	460-00-4	
1,2-Dichloroethane-d4 (S)	86 %		70-132	1		12/04/12 21:24	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	24.0 %		0.10	1		12/03/12 14:26		

ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-8 **Lab ID: 92140286008** Collected: 11/29/12 12:00 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.4	1	12/04/12 08:10	12/05/12 17:22	68334-30-5	
Surrogates								
n-Pentacosane (S)	79	%	41-119	1	12/04/12 08:10	12/05/12 17:22	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	7.4	1	12/05/12 17:50	12/06/12 02:14	8006-61-9	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-167	1	12/05/12 17:50	12/06/12 02:14	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	112	1		12/04/12 21:42	67-64-1	
Benzene	ND	ug/kg	5.6	1		12/04/12 21:42	71-43-2	
Bromobenzene	ND	ug/kg	5.6	1		12/04/12 21:42	108-86-1	
Bromochloromethane	ND	ug/kg	5.6	1		12/04/12 21:42	74-97-5	
Bromodichloromethane	ND	ug/kg	5.6	1		12/04/12 21:42	75-27-4	
Bromoform	ND	ug/kg	5.6	1		12/04/12 21:42	75-25-2	
Bromomethane	ND	ug/kg	11.2	1		12/04/12 21:42	74-83-9	
2-Butanone (MEK)	ND	ug/kg	112	1		12/04/12 21:42	78-93-3	
n-Butylbenzene	ND	ug/kg	5.6	1		12/04/12 21:42	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.6	1		12/04/12 21:42	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.6	1		12/04/12 21:42	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.6	1		12/04/12 21:42	56-23-5	
Chlorobenzene	ND	ug/kg	5.6	1		12/04/12 21:42	108-90-7	
Chloroethane	ND	ug/kg	11.2	1		12/04/12 21:42	75-00-3	
Chloroform	ND	ug/kg	5.6	1		12/04/12 21:42	67-66-3	
Chloromethane	ND	ug/kg	11.2	1		12/04/12 21:42	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.6	1		12/04/12 21:42	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.6	1		12/04/12 21:42	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	1		12/04/12 21:42	96-12-8	
Dibromochloromethane	ND	ug/kg	5.6	1		12/04/12 21:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	1		12/04/12 21:42	106-93-4	
Dibromomethane	ND	ug/kg	5.6	1		12/04/12 21:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.6	1		12/04/12 21:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.6	1		12/04/12 21:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.6	1		12/04/12 21:42	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.2	1		12/04/12 21:42	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.6	1		12/04/12 21:42	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.6	1		12/04/12 21:42	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.6	1		12/04/12 21:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.6	1		12/04/12 21:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.6	1		12/04/12 21:42	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.6	1		12/04/12 21:42	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.6	1		12/04/12 21:42	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.6	1		12/04/12 21:42	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.6	1		12/04/12 21:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.6	1		12/04/12 21:42	10061-01-5	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-8 **Lab ID: 92140286008** Collected: 11/29/12 12:00 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1		12/04/12 21:42	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.6	1		12/04/12 21:42	108-20-3	
Ethylbenzene	ND	ug/kg	5.6	1		12/04/12 21:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	1		12/04/12 21:42	87-68-3	
2-Hexanone	ND	ug/kg	55.9	1		12/04/12 21:42	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	1		12/04/12 21:42	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.6	1		12/04/12 21:42	99-87-6	
Methylene Chloride	ND	ug/kg	22.4	1		12/04/12 21:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.9	1		12/04/12 21:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.6	1		12/04/12 21:42	1634-04-4	
Naphthalene	ND	ug/kg	5.6	1		12/04/12 21:42	91-20-3	
n-Propylbenzene	ND	ug/kg	5.6	1		12/04/12 21:42	103-65-1	
Styrene	ND	ug/kg	5.6	1		12/04/12 21:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	1		12/04/12 21:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	1		12/04/12 21:42	79-34-5	
Tetrachloroethene	ND	ug/kg	5.6	1		12/04/12 21:42	127-18-4	
Toluene	ND	ug/kg	5.6	1		12/04/12 21:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	1		12/04/12 21:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1		12/04/12 21:42	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.6	1		12/04/12 21:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.6	1		12/04/12 21:42	79-00-5	
Trichloroethene	ND	ug/kg	5.6	1		12/04/12 21:42	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.6	1		12/04/12 21:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.6	1		12/04/12 21:42	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	1		12/04/12 21:42	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	1		12/04/12 21:42	108-67-8	
Vinyl acetate	ND	ug/kg	55.9	1		12/04/12 21:42	108-05-4	
Vinyl chloride	ND	ug/kg	11.2	1		12/04/12 21:42	75-01-4	
Xylene (Total)	ND	ug/kg	11.2	1		12/04/12 21:42	1330-20-7	
m&p-Xylene	ND	ug/kg	11.2	1		12/04/12 21:42	179601-23-1	
o-Xylene	ND	ug/kg	5.6	1		12/04/12 21:42	95-47-6	
Surrogates								
Dibromofluoromethane (S)	96 %		70-130	1		12/04/12 21:42	1868-53-7	
Toluene-d8 (S)	97 %		70-130	1		12/04/12 21:42	2037-26-5	
4-Bromofluorobenzene (S)	97 %		70-130	1		12/04/12 21:42	460-00-4	
1,2-Dichloroethane-d4 (S)	82 %		70-132	1		12/04/12 21:42	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	21.4 %		0.10	1		12/03/12 14:26		

ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-9 **Lab ID: 92140286009** Collected: 11/29/12 12:25 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	15.8	mg/kg	6.3	1	12/04/12 08:10	12/05/12 17:52	68334-30-5	
Surrogates								
n-Pentacosane (S)	93	%	41-119	1	12/04/12 08:10	12/05/12 17:52	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	6.5	1	12/05/12 17:50	12/06/12 02:37	8006-61-9	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-167	1	12/05/12 17:50	12/06/12 02:37	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	97.1	1		12/04/12 22:01	67-64-1	
Benzene	ND	ug/kg	4.9	1		12/04/12 22:01	71-43-2	
Bromobenzene	ND	ug/kg	4.9	1		12/04/12 22:01	108-86-1	
Bromochloromethane	ND	ug/kg	4.9	1		12/04/12 22:01	74-97-5	
Bromodichloromethane	ND	ug/kg	4.9	1		12/04/12 22:01	75-27-4	
Bromoform	ND	ug/kg	4.9	1		12/04/12 22:01	75-25-2	
Bromomethane	ND	ug/kg	9.7	1		12/04/12 22:01	74-83-9	
2-Butanone (MEK)	ND	ug/kg	97.1	1		12/04/12 22:01	78-93-3	
n-Butylbenzene	ND	ug/kg	4.9	1		12/04/12 22:01	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.9	1		12/04/12 22:01	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.9	1		12/04/12 22:01	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.9	1		12/04/12 22:01	56-23-5	
Chlorobenzene	ND	ug/kg	4.9	1		12/04/12 22:01	108-90-7	
Chloroethane	ND	ug/kg	9.7	1		12/04/12 22:01	75-00-3	
Chloroform	ND	ug/kg	4.9	1		12/04/12 22:01	67-66-3	
Chloromethane	ND	ug/kg	9.7	1		12/04/12 22:01	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.9	1		12/04/12 22:01	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.9	1		12/04/12 22:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.9	1		12/04/12 22:01	96-12-8	
Dibromochloromethane	ND	ug/kg	4.9	1		12/04/12 22:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.9	1		12/04/12 22:01	106-93-4	
Dibromomethane	ND	ug/kg	4.9	1		12/04/12 22:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.9	1		12/04/12 22:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.9	1		12/04/12 22:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.9	1		12/04/12 22:01	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.7	1		12/04/12 22:01	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.9	1		12/04/12 22:01	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.9	1		12/04/12 22:01	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.9	1		12/04/12 22:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.9	1		12/04/12 22:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.9	1		12/04/12 22:01	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.9	1		12/04/12 22:01	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.9	1		12/04/12 22:01	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.9	1		12/04/12 22:01	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.9	1		12/04/12 22:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.9	1		12/04/12 22:01	10061-01-5	

Date: 12/07/2012 02:25 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-9 **Lab ID: 92140286009** Collected: 11/29/12 12:25 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
trans-1,3-Dichloropropene	ND	ug/kg	4.9	1		12/04/12 22:01	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.9	1		12/04/12 22:01	108-20-3	
Ethylbenzene	ND	ug/kg	4.9	1		12/04/12 22:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.9	1		12/04/12 22:01	87-68-3	
2-Hexanone	ND	ug/kg	48.6	1		12/04/12 22:01	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.9	1		12/04/12 22:01	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.9	1		12/04/12 22:01	99-87-6	
Methylene Chloride	ND	ug/kg	19.4	1		12/04/12 22:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	48.6	1		12/04/12 22:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1		12/04/12 22:01	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1		12/04/12 22:01	91-20-3	
n-Propylbenzene	ND	ug/kg	4.9	1		12/04/12 22:01	103-65-1	
Styrene	ND	ug/kg	4.9	1		12/04/12 22:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.9	1		12/04/12 22:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9	1		12/04/12 22:01	79-34-5	
Tetrachloroethene	ND	ug/kg	4.9	1		12/04/12 22:01	127-18-4	
Toluene	ND	ug/kg	4.9	1		12/04/12 22:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.9	1		12/04/12 22:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.9	1		12/04/12 22:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.9	1		12/04/12 22:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.9	1		12/04/12 22:01	79-00-5	
Trichloroethene	ND	ug/kg	4.9	1		12/04/12 22:01	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.9	1		12/04/12 22:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.9	1		12/04/12 22:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.9	1		12/04/12 22:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.9	1		12/04/12 22:01	108-67-8	
Vinyl acetate	ND	ug/kg	48.6	1		12/04/12 22:01	108-05-4	
Vinyl chloride	ND	ug/kg	9.7	1		12/04/12 22:01	75-01-4	
Xylene (Total)	ND	ug/kg	9.7	1		12/04/12 22:01	1330-20-7	
m&p-Xylene	ND	ug/kg	9.7	1		12/04/12 22:01	179601-23-1	
o-Xylene	ND	ug/kg	4.9	1		12/04/12 22:01	95-47-6	
Surrogates								
Dibromofluoromethane (S)	97 %		70-130	1		12/04/12 22:01	1868-53-7	
Toluene-d8 (S)	99 %		70-130	1		12/04/12 22:01	2037-26-5	
4-Bromofluorobenzene (S)	98 %		70-130	1		12/04/12 22:01	460-00-4	
1,2-Dichloroethane-d4 (S)	84 %		70-132	1		12/04/12 22:01	17060-07-0	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture	20.6 %		0.10	1		12/03/12 14:26		
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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

Sample: B-10 **Lab ID: 92140286010** Collected: 11/29/12 13:01 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.9	1	12/04/12 08:10	12/05/12 17:52	68334-30-5	
Surrogates								
n-Pentacosane (S)	81	%	41-119	1	12/04/12 08:10	12/05/12 17:52	629-99-2	
Gasoline Range Organics		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	7.3	1	12/05/12 17:50	12/06/12 03:00	8006-61-9	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-167	1	12/05/12 17:50	12/06/12 03:00	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	122	1		12/04/12 22:19	67-64-1	
Benzene	ND	ug/kg	6.1	1		12/04/12 22:19	71-43-2	
Bromobenzene	ND	ug/kg	6.1	1		12/04/12 22:19	108-86-1	
Bromochloromethane	ND	ug/kg	6.1	1		12/04/12 22:19	74-97-5	
Bromodichloromethane	ND	ug/kg	6.1	1		12/04/12 22:19	75-27-4	
Bromoform	ND	ug/kg	6.1	1		12/04/12 22:19	75-25-2	
Bromomethane	ND	ug/kg	12.2	1		12/04/12 22:19	74-83-9	
2-Butanone (MEK)	ND	ug/kg	122	1		12/04/12 22:19	78-93-3	
n-Butylbenzene	ND	ug/kg	6.1	1		12/04/12 22:19	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.1	1		12/04/12 22:19	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.1	1		12/04/12 22:19	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.1	1		12/04/12 22:19	56-23-5	
Chlorobenzene	ND	ug/kg	6.1	1		12/04/12 22:19	108-90-7	
Chloroethane	ND	ug/kg	12.2	1		12/04/12 22:19	75-00-3	
Chloroform	ND	ug/kg	6.1	1		12/04/12 22:19	67-66-3	
Chloromethane	ND	ug/kg	12.2	1		12/04/12 22:19	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.1	1		12/04/12 22:19	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.1	1		12/04/12 22:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.1	1		12/04/12 22:19	96-12-8	
Dibromochloromethane	ND	ug/kg	6.1	1		12/04/12 22:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.1	1		12/04/12 22:19	106-93-4	
Dibromomethane	ND	ug/kg	6.1	1		12/04/12 22:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.1	1		12/04/12 22:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.1	1		12/04/12 22:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.1	1		12/04/12 22:19	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.2	1		12/04/12 22:19	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.1	1		12/04/12 22:19	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.1	1		12/04/12 22:19	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.1	1		12/04/12 22:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.1	1		12/04/12 22:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.1	1		12/04/12 22:19	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.1	1		12/04/12 22:19	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.1	1		12/04/12 22:19	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.1	1		12/04/12 22:19	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.1	1		12/04/12 22:19	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.1	1		12/04/12 22:19	10061-01-5	

Date: 12/07/2012 02:25 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 04432 33133.1.1
 Pace Project No.: 92140286

Sample: B-10 Lab ID: 92140286010 Collected: 11/29/12 13:01 Received: 11/30/12 13:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
trans-1,3-Dichloropropene	ND	ug/kg	6.1	1		12/04/12 22:19	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.1	1		12/04/12 22:19	108-20-3	
Ethylbenzene	ND	ug/kg	6.1	1		12/04/12 22:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.1	1		12/04/12 22:19	87-68-3	
2-Hexanone	ND	ug/kg	60.8	1		12/04/12 22:19	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.1	1		12/04/12 22:19	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.1	1		12/04/12 22:19	99-87-6	
Methylene Chloride	ND	ug/kg	24.3	1		12/04/12 22:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	60.8	1		12/04/12 22:19	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.1	1		12/04/12 22:19	1634-04-4	
Naphthalene	ND	ug/kg	6.1	1		12/04/12 22:19	91-20-3	
n-Propylbenzene	ND	ug/kg	6.1	1		12/04/12 22:19	103-65-1	
Styrene	ND	ug/kg	6.1	1		12/04/12 22:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.1	1		12/04/12 22:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.1	1		12/04/12 22:19	79-34-5	
Tetrachloroethene	ND	ug/kg	6.1	1		12/04/12 22:19	127-18-4	
Toluene	ND	ug/kg	6.1	1		12/04/12 22:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.1	1		12/04/12 22:19	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.1	1		12/04/12 22:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.1	1		12/04/12 22:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.1	1		12/04/12 22:19	79-00-5	
Trichloroethene	ND	ug/kg	6.1	1		12/04/12 22:19	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.1	1		12/04/12 22:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.1	1		12/04/12 22:19	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.1	1		12/04/12 22:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.1	1		12/04/12 22:19	108-67-8	
Vinyl acetate	ND	ug/kg	60.8	1		12/04/12 22:19	108-05-4	
Vinyl chloride	ND	ug/kg	12.2	1		12/04/12 22:19	75-01-4	
Xylene (Total)	ND	ug/kg	12.2	1		12/04/12 22:19	1330-20-7	
m&p-Xylene	ND	ug/kg	12.2	1		12/04/12 22:19	179601-23-1	
o-Xylene	ND	ug/kg	6.1	1		12/04/12 22:19	95-47-6	
Surrogates								
Dibromofluoromethane (S)	98 %		70-130	1		12/04/12 22:19	1868-53-7	
Toluene-d8 (S)	98 %		70-130	1		12/04/12 22:19	2037-26-5	
4-Bromofluorobenzene (S)	93 %		70-130	1		12/04/12 22:19	460-00-4	
1,2-Dichloroethane-d4 (S)	86 %		70-132	1		12/04/12 22:19	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	27.5 %		0.10	1		12/03/12 14:27		

QUALITY CONTROL DATA

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

QC Batch: GCV/6466 Analysis Method: EPA 8015 Modified
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
Associated Lab Samples: 92140286001, 92140286002, 92140286003, 92140286004, 92140286005, 92140286006, 92140286007, 92140286008, 92140286009, 92140286010

METHOD BLANK: 884494 Matrix: Solid
Associated Lab Samples: 92140286001, 92140286002, 92140286003, 92140286004, 92140286005, 92140286006, 92140286007, 92140286008, 92140286009, 92140286010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.8	12/05/12 21:38	
4-Bromofluorobenzene (S)	%	94	70-167	12/05/12 21:38	

LABORATORY CONTROL SAMPLE: 884495

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	24.3	23.3	96	70-165	
4-Bromofluorobenzene (S)	%			99	70-167	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 884496 884497

Parameter	Units	92140254001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Gasoline Range Organics	mg/kg	ND	27.2	27.2	33.3	33.5	119	120	47-187	1	
4-Bromofluorobenzene (S)	%						95	94	70-167		

QUALITY CONTROL DATA

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

QC Batch: MSV/21310 Analysis Method: EPA 8260
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
 Associated Lab Samples: 92140286001, 92140286002, 92140286003, 92140286004, 92140286005, 92140286006, 92140286007, 92140286008, 92140286009, 92140286010

METHOD BLANK: 883121 Matrix: Solid

Associated Lab Samples: 92140286001, 92140286002, 92140286003, 92140286004, 92140286005, 92140286006, 92140286007, 92140286008, 92140286009, 92140286010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.3	12/04/12 13:05	
1,1,1-Trichloroethane	ug/kg	ND	5.3	12/04/12 13:05	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.3	12/04/12 13:05	
1,1,2-Trichloroethane	ug/kg	ND	5.3	12/04/12 13:05	
1,1-Dichloroethane	ug/kg	ND	5.3	12/04/12 13:05	
1,1-Dichloroethene	ug/kg	ND	5.3	12/04/12 13:05	
1,1-Dichloropropene	ug/kg	ND	5.3	12/04/12 13:05	
1,2,3-Trichlorobenzene	ug/kg	ND	5.3	12/04/12 13:05	
1,2,3-Trichloropropane	ug/kg	ND	5.3	12/04/12 13:05	
1,2,4-Trichlorobenzene	ug/kg	ND	5.3	12/04/12 13:05	
1,2,4-Trimethylbenzene	ug/kg	ND	5.3	12/04/12 13:05	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.3	12/04/12 13:05	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.3	12/04/12 13:05	
1,2-Dichlorobenzene	ug/kg	ND	5.3	12/04/12 13:05	
1,2-Dichloroethane	ug/kg	ND	5.3	12/04/12 13:05	
1,2-Dichloropropane	ug/kg	ND	5.3	12/04/12 13:05	
1,3,5-Trimethylbenzene	ug/kg	ND	5.3	12/04/12 13:05	
1,3-Dichlorobenzene	ug/kg	ND	5.3	12/04/12 13:05	
1,3-Dichloropropane	ug/kg	ND	5.3	12/04/12 13:05	
1,4-Dichlorobenzene	ug/kg	ND	5.3	12/04/12 13:05	
2,2-Dichloropropane	ug/kg	ND	5.3	12/04/12 13:05	
2-Butanone (MEK)	ug/kg	ND	105	12/04/12 13:05	
2-Chlorotoluene	ug/kg	ND	5.3	12/04/12 13:05	
2-Hexanone	ug/kg	ND	52.6	12/04/12 13:05	
4-Chlorotoluene	ug/kg	ND	5.3	12/04/12 13:05	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	52.6	12/04/12 13:05	
Acetone	ug/kg	ND	105	12/04/12 13:05	
Benzene	ug/kg	ND	5.3	12/04/12 13:05	
Bromobenzene	ug/kg	ND	5.3	12/04/12 13:05	
Bromochloromethane	ug/kg	ND	5.3	12/04/12 13:05	
Bromodichloromethane	ug/kg	ND	5.3	12/04/12 13:05	
Bromoform	ug/kg	ND	5.3	12/04/12 13:05	
Bromomethane	ug/kg	ND	10.5	12/04/12 13:05	
Carbon tetrachloride	ug/kg	ND	5.3	12/04/12 13:05	
Chlorobenzene	ug/kg	ND	5.3	12/04/12 13:05	
Chloroethane	ug/kg	ND	10.5	12/04/12 13:05	
Chloroform	ug/kg	ND	5.3	12/04/12 13:05	
Chloromethane	ug/kg	ND	10.5	12/04/12 13:05	
cis-1,2-Dichloroethene	ug/kg	ND	5.3	12/04/12 13:05	
cis-1,3-Dichloropropene	ug/kg	ND	5.3	12/04/12 13:05	
Dibromochloromethane	ug/kg	ND	5.3	12/04/12 13:05	

QUALITY CONTROL DATA

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

METHOD BLANK: 883121

Matrix: Solid

Associated Lab Samples: 92140286001, 92140286002, 92140286003, 92140286004, 92140286005, 92140286006, 92140286007, 92140286008, 92140286009, 92140286010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/kg	ND	5.3	12/04/12 13:05	
Dichlorodifluoromethane	ug/kg	ND	10.5	12/04/12 13:05	
Diisopropyl ether	ug/kg	ND	5.3	12/04/12 13:05	
Ethylbenzene	ug/kg	ND	5.3	12/04/12 13:05	
Hexachloro-1,3-butadiene	ug/kg	ND	5.3	12/04/12 13:05	
Isopropylbenzene (Cumene)	ug/kg	ND	5.3	12/04/12 13:05	
m&p-Xylene	ug/kg	ND	10.5	12/04/12 13:05	
Methyl-tert-butyl ether	ug/kg	ND	5.3	12/04/12 13:05	
Methylene Chloride	ug/kg	ND	21.1	12/04/12 13:05	
n-Butylbenzene	ug/kg	ND	5.3	12/04/12 13:05	
n-Propylbenzene	ug/kg	ND	5.3	12/04/12 13:05	
Naphthalene	ug/kg	ND	5.3	12/04/12 13:05	
o-Xylene	ug/kg	ND	5.3	12/04/12 13:05	
p-Isopropyltoluene	ug/kg	ND	5.3	12/04/12 13:05	
sec-Butylbenzene	ug/kg	ND	5.3	12/04/12 13:05	
Styrene	ug/kg	ND	5.3	12/04/12 13:05	
tert-Butylbenzene	ug/kg	ND	5.3	12/04/12 13:05	
Tetrachloroethene	ug/kg	ND	5.3	12/04/12 13:05	
Toluene	ug/kg	ND	5.3	12/04/12 13:05	
trans-1,2-Dichloroethene	ug/kg	ND	5.3	12/04/12 13:05	
trans-1,3-Dichloropropene	ug/kg	ND	5.3	12/04/12 13:05	
Trichloroethene	ug/kg	ND	5.3	12/04/12 13:05	
Trichlorofluoromethane	ug/kg	ND	5.3	12/04/12 13:05	
Vinyl acetate	ug/kg	ND	52.6	12/04/12 13:05	
Vinyl chloride	ug/kg	ND	10.5	12/04/12 13:05	
Xylene (Total)	ug/kg	ND	10.5	12/04/12 13:05	
1,2-Dichloroethane-d4 (S)	%	98	70-132	12/04/12 13:05	
4-Bromofluorobenzene (S)	%	96	70-130	12/04/12 13:05	
Dibromofluoromethane (S)	%	98	70-130	12/04/12 13:05	
Toluene-d8 (S)	%	99	70-130	12/04/12 13:05	

LABORATORY CONTROL SAMPLE: 883122

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	50.8	51.3	101	70-131	
1,1,1-Trichloroethane	ug/kg	50.8	46.7	92	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	50.8	53.2	105	70-130	
1,1,2-Trichloroethane	ug/kg	50.8	55.9	110	70-132	
1,1-Dichloroethane	ug/kg	50.8	48.7	96	70-143	
1,1-Dichloroethene	ug/kg	50.8	50.1	99	70-137	
1,1-Dichloropropene	ug/kg	50.8	45.3	89	70-135	
1,2,3-Trichlorobenzene	ug/kg	50.8	54.8	108	69-153	
1,2,3-Trichloropropane	ug/kg	50.8	53.4	105	70-130	
1,2,4-Trichlorobenzene	ug/kg	50.8	55.4	109	55-171	

QUALITY CONTROL DATA

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

LABORATORY CONTROL SAMPLE: 883122

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	50.8	49.8	98	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	50.8	51.2	101	68-141	
1,2-Dibromoethane (EDB)	ug/kg	50.8	52.9	104	70-130	
1,2-Dichlorobenzene	ug/kg	50.8	51.6	102	70-140	
1,2-Dichloroethane	ug/kg	50.8	42.5	84	70-137	
1,2-Dichloropropane	ug/kg	50.8	50.2	99	70-133	
1,3,5-Trimethylbenzene	ug/kg	50.8	48.6	96	70-143	
1,3-Dichlorobenzene	ug/kg	50.8	52.3	103	70-144	
1,3-Dichloropropane	ug/kg	50.8	50.1	99	70-132	
1,4-Dichlorobenzene	ug/kg	50.8	52.9	104	70-142	
2,2-Dichloropropane	ug/kg	50.8	46.2	91	68-152	
2-Butanone (MEK)	ug/kg	102	101J	99	70-149	
2-Chlorotoluene	ug/kg	50.8	48.4	95	70-141	
2-Hexanone	ug/kg	102	104	102	70-149	
4-Chlorotoluene	ug/kg	50.8	50.9	100	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	102	106	104	70-153	
Acetone	ug/kg	102	111	109	70-157	
Benzene	ug/kg	50.8	48.2	95	70-130	
Bromobenzene	ug/kg	50.8	48.5	95	70-141	
Bromochloromethane	ug/kg	50.8	51.1	101	70-149	
Bromodichloromethane	ug/kg	50.8	49.4	97	70-130	
Bromoform	ug/kg	50.8	55.1	108	70-131	
Bromomethane	ug/kg	50.8	64.1	126	64-136	F3
Carbon tetrachloride	ug/kg	50.8	47.6	94	70-154	
Chlorobenzene	ug/kg	50.8	54.5	107	70-135	
Chloroethane	ug/kg	50.8	53.3	105	68-151	
Chloroform	ug/kg	50.8	48.3	95	70-130	
Chloromethane	ug/kg	50.8	54.1	106	70-132	
cis-1,2-Dichloroethene	ug/kg	50.8	45.3	89	70-140	
cis-1,3-Dichloropropene	ug/kg	50.8	48.3	95	70-137	
Dibromochloromethane	ug/kg	50.8	51.8	102	70-130	
Dibromomethane	ug/kg	50.8	53.3	105	70-136	
Dichlorodifluoromethane	ug/kg	50.8	55.1	108	36-148	F3
Diisopropyl ether	ug/kg	50.8	39.3	77	70-139	
Ethylbenzene	ug/kg	50.8	52.0	102	70-137	
Hexachloro-1,3-butadiene	ug/kg	50.8	53.4	105	70-145	
Isopropylbenzene (Cumene)	ug/kg	50.8	50.6	99	70-141	
m&p-Xylene	ug/kg	102	106	104	70-140	
Methyl-tert-butyl ether	ug/kg	50.8	42.0	83	45-150	
Methylene Chloride	ug/kg	50.8	47.5	94	70-133	
n-Butylbenzene	ug/kg	50.8	51.5	101	65-155	
n-Propylbenzene	ug/kg	50.8	48.9	96	70-148	
Naphthalene	ug/kg	50.8	52.8	104	70-148	
o-Xylene	ug/kg	50.8	49.1	97	70-141	
p-Isopropyltoluene	ug/kg	50.8	52.1	102	70-148	
sec-Butylbenzene	ug/kg	50.8	50.1	99	70-145	
Styrene	ug/kg	50.8	54.1	106	70-138	
tert-Butylbenzene	ug/kg	50.8	48.3	95	70-143	

QUALITY CONTROL DATA

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

LABORATORY CONTROL SAMPLE: 883122

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/kg	50.8	53.8	106	70-140	
Toluene	ug/kg	50.8	52.6	103	70-130	
trans-1,2-Dichloroethene	ug/kg	50.8	47.6	94	70-136	
trans-1,3-Dichloropropene	ug/kg	50.8	49.6	98	70-138	
Trichloroethene	ug/kg	50.8	54.3	107	70-132	
Trichlorofluoromethane	ug/kg	50.8	52.1	102	69-134	
Vinyl acetate	ug/kg	102	121	119	24-161	
Vinyl chloride	ug/kg	50.8	48.7	96	55-140	
Xylene (Total)	ug/kg	152	155	102	70-141	
1,2-Dichloroethane-d4 (S)	%			89	70-132	
4-Bromofluorobenzene (S)	%			108	70-130	
Dibromofluoromethane (S)	%			97	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 883737

Parameter	Units	92140421001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg	ND	63.3	69.9	111	49-180	
Benzene	ug/kg	ND	63.3	62.1	98	50-166	
Chlorobenzene	ug/kg	ND	63.3	82.8	131	43-169	
Toluene	ug/kg	ND	63.3	77.7	123	52-163	
Trichloroethene	ug/kg	ND	63.3	81.5	129	49-167	
1,2-Dichloroethane-d4 (S)	%				95	70-132	
4-Bromofluorobenzene (S)	%				98	70-130	
Dibromofluoromethane (S)	%				100	70-130	
Toluene-d8 (S)	%				96	70-130	

SAMPLE DUPLICATE: 883736

Parameter	Units	92140412001 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,1-Trichloroethane	ug/kg	ND	ND		
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,2-Trichloroethane	ug/kg	ND	ND		
1,1-Dichloroethane	ug/kg	ND	ND		
1,1-Dichloroethene	ug/kg	ND	ND		
1,1-Dichloropropene	ug/kg	ND	ND		
1,2,3-Trichlorobenzene	ug/kg	ND	ND		
1,2,3-Trichloropropane	ug/kg	ND	ND		
1,2,4-Trichlorobenzene	ug/kg	ND	ND		
1,2,4-Trimethylbenzene	ug/kg	ND	ND		
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		
1,2-Dichlorobenzene	ug/kg	ND	ND		
1,2-Dichloroethane	ug/kg	ND	ND		

QUALITY CONTROL DATA

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

SAMPLE DUPLICATE: 883736

Parameter	Units	92140412001 Result	Dup Result	RPD	Qualifiers
1,2-Dichloropropane	ug/kg	ND	ND		
1,3,5-Trimethylbenzene	ug/kg	ND	ND		
1,3-Dichlorobenzene	ug/kg	ND	ND		
1,3-Dichloropropane	ug/kg	ND	ND		
1,4-Dichlorobenzene	ug/kg	ND	ND		
2,2-Dichloropropane	ug/kg	ND	ND		
2-Butanone (MEK)	ug/kg	ND	ND		
2-Chlorotoluene	ug/kg	ND	ND		
2-Hexanone	ug/kg	ND	ND		
4-Chlorotoluene	ug/kg	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		
Acetone	ug/kg	ND	ND		
Benzene	ug/kg	ND	ND		
Bromobenzene	ug/kg	ND	ND		
Bromochloromethane	ug/kg	ND	ND		
Bromodichloromethane	ug/kg	ND	ND		
Bromoform	ug/kg	ND	ND		
Bromomethane	ug/kg	ND	ND		
Carbon tetrachloride	ug/kg	ND	ND		
Chlorobenzene	ug/kg	ND	ND		
Chloroethane	ug/kg	ND	ND		
Chloroform	ug/kg	ND	ND		
Chloromethane	ug/kg	ND	ND		
cis-1,2-Dichloroethene	ug/kg	ND	ND		
cis-1,3-Dichloropropene	ug/kg	ND	ND		
Dibromochloromethane	ug/kg	ND	ND		
Dibromomethane	ug/kg	ND	ND		
Dichlorodifluoromethane	ug/kg	ND	ND		
Diisopropyl ether	ug/kg	ND	ND		
Ethylbenzene	ug/kg	ND	ND		
Hexachloro-1,3-butadiene	ug/kg	ND	ND		
Isopropylbenzene (Cumene)	ug/kg	ND	ND		
m&p-Xylene	ug/kg	ND	ND		
Methyl-tert-butyl ether	ug/kg	ND	ND		
Methylene Chloride	ug/kg	ND	ND		
n-Butylbenzene	ug/kg	ND	ND		
n-Propylbenzene	ug/kg	ND	ND		
Naphthalene	ug/kg	ND	1.9J		
o-Xylene	ug/kg	ND	ND		
p-Isopropyltoluene	ug/kg	ND	ND		
sec-Butylbenzene	ug/kg	ND	ND		
Styrene	ug/kg	ND	ND		
tert-Butylbenzene	ug/kg	ND	ND		
Tetrachloroethene	ug/kg	ND	ND		
Toluene	ug/kg	ND	ND		
trans-1,2-Dichloroethene	ug/kg	ND	ND		
trans-1,3-Dichloropropene	ug/kg	ND	ND		
Trichloroethene	ug/kg	ND	ND		

QUALITY CONTROL DATA

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

SAMPLE DUPLICATE: 883736

Parameter	Units	92140412001 Result	Dup Result	RPD	Qualifiers
Trichlorofluoromethane	ug/kg	ND	ND		
Vinyl acetate	ug/kg	ND	ND		
Vinyl chloride	ug/kg	ND	ND		
Xylene (Total)	ug/kg	ND	ND		
1,2-Dichloroethane-d4 (S)	%	96	99	23	
4-Bromofluorobenzene (S)	%	98	95	17	
Dibromofluoromethane (S)	%	103	96	12	
Toluene-d8 (S)	%	97	100	23	

QUALITY CONTROL DATA

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

QC Batch: OEXT/19940 Analysis Method: EPA 8015 Modified
QC Batch Method: EPA 3546 Analysis Description: 8015 Solid GCSV
Associated Lab Samples: 92140286001, 92140286002, 92140286003, 92140286004, 92140286005, 92140286006, 92140286007, 92140286008, 92140286009, 92140286010

METHOD BLANK: 882378 Matrix: Solid
Associated Lab Samples: 92140286001, 92140286002, 92140286003, 92140286004, 92140286005, 92140286006, 92140286007, 92140286008, 92140286009, 92140286010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Components	mg/kg	ND	5.0	12/05/12 15:23	
n-Pentacosane (S)	%	80	41-119	12/05/12 15:23	

LABORATORY CONTROL SAMPLE: 882379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Components	mg/kg	66.7	54.1	81	49-113	
n-Pentacosane (S)	%			81	41-119	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 882380 882381

Parameter	Units	92140310002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Diesel Components	mg/kg	ND	87.7	87.7	66.9	68.2	73	74	10-146	2	
n-Pentacosane (S)	%						74	68	41-119		



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QUALITY CONTROL DATA

Project: NCDOT 04432 33133.1.1
 Pace Project No.: 92140286

QC Batch: PMST/5169 Analysis Method: ASTM D2974-87
 QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
 Associated Lab Samples: 92140286001, 92140286002, 92140286003

SAMPLE DUPLICATE: 882425

Parameter	Units	92140192001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	25.6	27.0	5	

SAMPLE DUPLICATE: 882426

Parameter	Units	92140229010 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	30.4	30.1	1	

QUALIFIERS

Project: NCDOT 04432 33133.1.1

Pace Project No.: 92140286

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

F3 The recovery of the second source standard used to verify the initial calibration curve for this analyte is outside the laboratory's control limits. The result is estimated.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NCDOT 04432 33133.1.1
Pace Project No.: 92140286

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92140286001	B-1	EPA 3546	OEXT/19940	EPA 8015 Modified	GCSV/13468
92140286002	B-2	EPA 3546	OEXT/19940	EPA 8015 Modified	GCSV/13468
92140286003	B-3	EPA 3546	OEXT/19940	EPA 8015 Modified	GCSV/13468
92140286004	B-4	EPA 3546	OEXT/19940	EPA 8015 Modified	GCSV/13468
92140286005	B-5	EPA 3546	OEXT/19940	EPA 8015 Modified	GCSV/13468
92140286006	B-6	EPA 3546	OEXT/19940	EPA 8015 Modified	GCSV/13468
92140286007	B-7	EPA 3546	OEXT/19940	EPA 8015 Modified	GCSV/13468
92140286008	B-8	EPA 3546	OEXT/19940	EPA 8015 Modified	GCSV/13468
92140286009	B-9	EPA 3546	OEXT/19940	EPA 8015 Modified	GCSV/13468
92140286010	B-10	EPA 3546	OEXT/19940	EPA 8015 Modified	GCSV/13468
92140286001	B-1	EPA 5035A/5030B	GCV/6466	EPA 8015 Modified	GCV/6467
92140286002	B-2	EPA 5035A/5030B	GCV/6466	EPA 8015 Modified	GCV/6467
92140286003	B-3	EPA 5035A/5030B	GCV/6466	EPA 8015 Modified	GCV/6467
92140286004	B-4	EPA 5035A/5030B	GCV/6466	EPA 8015 Modified	GCV/6467
92140286005	B-5	EPA 5035A/5030B	GCV/6466	EPA 8015 Modified	GCV/6467
92140286006	B-6	EPA 5035A/5030B	GCV/6466	EPA 8015 Modified	GCV/6467
92140286007	B-7	EPA 5035A/5030B	GCV/6466	EPA 8015 Modified	GCV/6467
92140286008	B-8	EPA 5035A/5030B	GCV/6466	EPA 8015 Modified	GCV/6467
92140286009	B-9	EPA 5035A/5030B	GCV/6466	EPA 8015 Modified	GCV/6467
92140286010	B-10	EPA 5035A/5030B	GCV/6466	EPA 8015 Modified	GCV/6467
92140286001	B-1	EPA 8260	MSV/21310		
92140286002	B-2	EPA 8260	MSV/21310		
92140286003	B-3	EPA 8260	MSV/21310		
92140286004	B-4	EPA 8260	MSV/21310		
92140286005	B-5	EPA 8260	MSV/21310		
92140286006	B-6	EPA 8260	MSV/21310		
92140286007	B-7	EPA 8260	MSV/21310		
92140286008	B-8	EPA 8260	MSV/21310		
92140286009	B-9	EPA 8260	MSV/21310		
92140286010	B-10	EPA 8260	MSV/21310		
92140286001	B-1	ASTM D2974-87	PMST/5169		
92140286002	B-2	ASTM D2974-87	PMST/5169		
92140286003	B-3	ASTM D2974-87	PMST/5169		
92140286004	B-4	ASTM D2974-87	PMST/5170		
92140286005	B-5	ASTM D2974-87	PMST/5170		
92140286006	B-6	ASTM D2974-87	PMST/5170		
92140286007	B-7	ASTM D2974-87	PMST/5170		
92140286008	B-8	ASTM D2974-87	PMST/5170		
92140286009	B-9	ASTM D2974-87	PMST/5170		
92140286010	B-10	ASTM D2974-87	PMST/5170		



CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

1567296

Section A
Required Client Information:

Company: **S&ME**
 Address: **3201 Spring Forest Rd**
Raleigh NC 27616
 Email: **elliott@smelnc.com**
 Phone: **919-872-2660** Fax:
 Requested Due Date/TAT:

Section B
Required Project Information:

Report To: **m Peifer**
 Copy To:
 Purchase Order No.:
 Project Name: **NCDDT U443Z**
 Project Number: **1054-12-390**

Section C
Invoice Information:

Attention:
 Company Name:
 Address:
 Pace Quote Reference:
 Pace Project Manager:
 Pace Profile #: **5595-1**

REGULATORY AGENCY
 NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER **DOT**
 Site Location: **NC**
 STATE: **NC**

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test ↓	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.		
					COMPOSITE START		COMPOSITE END/GRAB				Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol					Other	
					DATE	TIME	DATE	TIME															
1	B-1							11/29/12	0950	3												001	
2	B-2							11/29/12	1015														002
3	B-3							11/29/12	1030														003
4	B-4							11/29/12	1045														004
5	B-5							11/29/12	1100														005
6	B-6							11/29/12	1130														006
7	B-7							11/29/12	1147														007
8	B-8							11/29/12	1200														008
9	B-9							11/29/12	1225														009
10	B-10							11/29/12	1301														010

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>[Signature]</i>	11/30/12	13:10	<i>[Signature]</i>	11/30/12	8:05	
	<i>[Signature]</i>	11/30/12	13:10	<i>[Signature]</i>	11/30/12	13:10	

ORIGINAL	SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	PRINT Name of SAMPLER: Candy Elliott					
	SIGNATURE of SAMPLER: <i>[Signature]</i>	DATE Signed (MM/DD/YY): 11/29/12				

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.



Document Name: Sample Condition Upon Receipt (SCUR)

Document Revised: October 01, 2012 Page 1 of 2

Document Number: F-CHR-CS-03-rev.08

Issuing Authority: Pace Huntersville Quality Office

Client Name: S.W. ME Project # 92140286

Where Received: Huntersville Asheville Eden Raleigh

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

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

Optional: Pro. Due Date Pro. Name

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used: IR Gun T1101 T1102 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Temp Correction Factor T1101: No Correction T1102: No Correction

Corrected Cooler Temp.: 5.8 C Biological Tissue is Frozen: Yes No N/A

Date and initials of person examining contents: _____

Temp should be above freezing to 6°C

Comments:

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

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: VCH Date: 11/30/12 SRF Review: VCH Date: 12/3/12

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