PSA REPORT

PRELIMINARY SITE ASSESSMENT
I-85/US 321 INTERCHANGE
GASTONIA, GASTON COUNTY, NC
STATE PROJECT I-5000
WBS ELEMENT 41153.1.1

Prepared for

North Carolina Department of Transportation
Geotechnical Engineering Unit
Geoenvironmental Section
Century Center Complex, Building B
1020 Birch Ridge Drive
Raleigh, NC 27610
Tel. (919) 250-4088

27 September 2016

AECOM
1600 Perimeter Park Drive, Suite 400
Morrisville, North Carolina 27560
Tel. (919) 461-1100
Fax. (919) 461-1415

AECOM Job No. 60516190

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Certification

This Report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my thorough inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Bob Wyrick, P.G. — License No. 1356 — 9/27/16

Project Manager/Senior Geologist
AECOM

Date

Certification

This Report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my thorough inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

DocuSigned by:
Bob Wyrick
140E0CA43E3A42B...

Bob Wyrick, P.G.
Project Manager/Senior Geologist
AECOM

NC License No. 1356

Date 9/28/2016

1.1 INTRODUCTION

This report documents a Preliminary Site Assessment (PSA) conducted by AECOM on behalf of the North Carolina Department of Transportation (NCDOT). This PSA was conducted for State Project I-5000/WBS Element 41153.1.1 in Gastonia, Gaston County, North Carolina (**Figure 1**). Specifically, the PSA study area consists of approximately 2,200 feet of an unnamed tributary of Long Creek located east of North Chester Street (NC 321), west of Sims Legion Park, and extending (in the direction of surface water flow) from Caldwell Street to the south, under I-85, and north to the Rankin Lake Road bridge (herein referred to as the "Site").

This PSA was performed in general accordance with:

- North Carolina Department of Environmental Quality's (NCDEQ's) proposed sampling plan dated June 22, 2016 and the NCDOT's Request for Proposal dated July 13, 2016.
- AECOM's August 3, 2016 Technical and Cost Proposal for the Site.
- NCDOT's August 5, 2016 Notice to Proceed for the Site.

The PSA scope of work includes sediment sampling in the unnamed tributary of Long Creek.

1.2 BACKGROUND

Stream sediments at the Site will be disturbed during the interchange improvement activities proposed under State Project I-5000/WBS 41153.1.1. Specifically, the interchange improvement activities will require sediment removal, as part of construction of culvert extensions, and subsequent stream restoration activities. However, the east-adjacent Sims Legion Park property has been identified as an unregulated waste disposal area (i.e. landfill). The objective for this PSA is to determine if contaminated sediments are present in the Site area and, if present, estimate the quantity of impacted sediment and indicate the approximate area of contamination on a map. The major Site features and the surrounding area are shown on **Figure 1**. The Site consists of the unnamed tributary of Long Creek that runs along the western margin of the Sims Legion Park Landfill.

2.1 SEDIMENT SAMPLING PROCEDURES

Six pre-selected sediment sampling locations were located in the field using a Trimble Geo 7 Series global positioning system device with sub-meter accuracy. Sampling locations were selected based on the assumed extent of the landfill. Sampling was conducted on August 25, 2016 in the unnamed tributary of Long Creek. Samples were labeled with the nomenclature specified in the proposal, SED-1 through SED-6, from the most downstream to the most upstream locations, respectively. Five of the sediment samples were collected from the unnamed tributary of Long Creek, and one sample (SED-4) was collected from a small tributary that originates near the center of the landfill.

To access sample locations, AECOM field staff walked along stream banks when possible and waded when necessary. While wading, care was taken to walk in locations that would minimize disturbance of the stream. To collect samples, AECOM field staff waded in the stream and collected samples upstream of the sampler's location. To minimize streambed disturbance, sampling began at the most downstream sample (SED-1) and concluded with the most upstream sample (SED-6). Samples from the first foot of sediment were collected using a decontaminated stainless steel shovel. Sediment samples collected for volatile organic compound (VOC) analysis were collected from undisturbed portions of the sediment directly from the shovel to avoid sample volatilization. Sediment samples collected for semi-volatile organic compound (SVOC) and metal analysis were homogenized in a glass bowl using the quartering procedure and shoveling method outlined in the United States Environmental Protection Agency (EPA) *Region IV Soil Sampling Standard Operating Procedures* (EPA, 2014).

Sampling equipment was decontaminated after each sampling location using a brush, alconox and de-ionized water in general accordance with appropriate EPA Region IV *Field Branches Quality System and Technical Procedure* documents.

No investigation derived waste was generated during this sampling event.

2.2 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

While in the field, pertinent observations and field data collection activities were recorded in a logbook maintained by the AECOM field representative. Each sample collected was assigned a unique sample identification number and placed in discrete containers for analyses.

One field duplicate was collected during the sampling event. The field duplicate was collected by alternately filling two sets of identical sample containers from the same sample location. The field duplicate was analyzed for the same parameters as the parent sample.

Trip blanks were prepared by Pace Analytical Services, Inc. and consisted of three 40-milliliter glass vials filled with de-ionized, organic-free water. One trip blank was analyzed for VOCs. 1,4-Dioxane analysis was requested for a second trip blank but the trip blank could not be analyzed due to laboratory error.

One equipment blank was collected on the day of sampling. The equipment blank was collected by pouring organic-free de-ionized water over a piece of sampling equipment and into the appropriate sample containers.

3.1 SEDIMENT SAMPLING RESULTS

A total of six sediment samples were collected during the PSA investigation at the Site. The sediment was predominantly grayish brown, micaceous, poorly sorted sand with silt. Sediment samples were collected from the top 0-1 feet of the stream bed. Samples were analyzed for VOCs via United States Environmental Protection Agency (EPA) Method 8260/5035, 1,4-Dioxane via EPA Method 8260 Selective Ion Monitoring, SVOCs via EPA Method 8270, and metals via EPA Methods 6010, 7471, and 7196. Sample locations are shown in **Figure 1** and sediment analytical results are summarized in **Table 1**.

NCDEQ's June 22, 2016 proposed sampling plan mentions only the North Carolina Inactive Hazardous Site Branch (IHSB) Industrial/Commercial Preliminary Soil Remediation Goals (PSRGs). However, for comparison purposes, sediment sample results discussed below and in Table 1 of this PSA report are also compared to the Residential Health-Based and Protection of Groundwater (PoG) PSRGs. Sediment results are also compared to the EPA Region IV *Ecological Freshwater Sediment Screening Values* (EPA, 2015).

VOCs

Methylene chloride and acetone were detected in the six primary samples, and were the only two VOCs detected in the sediment samples. Acetone and methylene chloride were not detected in the field duplicate sample. Three samples (SED-3, SED-4 and SED-5) had acetone concentrations greater than the Ecological Freshwater Sediment Screening values. Two samples (SED-4 and SED-5) had concentrations of methylene chloride over the IHSB PSRG for PoG. These VOC detections are likely laboratory contaminants, as discussed in Section 3.2 below. No VOCs were detected above the Residential or Industrial/Commercial Health-Based PSRGs.

1,4-Dioxane

No samples contained 1,4-dioxane at concentrations over the laboratory reporting limits. Method detection limits (MDLs) for 1,4-dioxane were less than the IHSB PSRG.

SVOCs

No SVOCs were detected in the sediment samples. However, the laboratory MDLs for some constituents were elevated above the IHSB PSRGs. These instances are outlined below.

SVOC	Laboratory Method Detection Limit (µg/kg)	Residential PSRG (µg/kg)	Industrial/ Commercial PSRG (µg/kg)	Protection of Groundwater PSRG (µg/kg)
Atrazine	171	2,400	10,000	25
Benzo(a)pyrene	82.8	16	290	59
Bis(2-chloroethyl)ether	110	38,000	500,000	--
Carbon tetrachloride	2.2	650	2,900	2
2-Chlorophenol	118	78,000	1,160,000	4
Dibenz(a,h)anthracene	92	16	290	190
1,2-Dibromoethane	1.5	36	160	0.097

In each of these cases, the method detection limit met the Industrial/Commercial PSRG as requested by NCDEQ in their proposed sampling plan.

Metals

Antimony, arsenic, copper and lead were detected in one or more samples over their respective PSRGs or Ecological Freshwater Sediment Screening Values. Samples SED-1, SED-2, SED-4 and SED-6 contained concentrations of arsenic over the Residential PSRG. SED-4 also contained antimony over the PoG PSRG, and copper and lead at concentrations over their Ecological Freshwater Sediment Screening values. SED-4 was collected from the small tributary that originates near the center of the landfill and the metals concentrations are potentially related to the landfill. No metals were detected above the Industrial/Commercial Health-Based PSRGs.

According to Shacklette and Boerngen (1984), the average arsenic concentration in the eastern United States (east of the 96th meridian) is 7.4 milligrams per kilogram (mg/kg). Soils collected in the piedmont of North Carolina from this same report contain arsenic concentrations ranging from 1.2 mg/kg to 18 mg/kg, and the average arsenic concentration of these samples is 6.1 mg/kg. Thus, arsenic concentrations in Site sediment samples are comparable to the ranges and averages of arsenic concentrations throughout the eastern United States, and, more specifically, the piedmont region of North Carolina (Shacklette and Boerngen, 1984). Therefore, the arsenic detected in Site samples is likely naturally occurring and not related to the landfill.

3.2 QUALITY ASSURANCE/QUALITY CONTROL RESULTS

During the laboratory data review performed by AECOM it was noted that acetone and methylene chloride were detected in sample SED-3 but not in the duplicate sample (SED-3-DUP) that was collected from the same location. Methylene chloride was also detected in the trip blank. The laboratory qualified the methylene chloride results for samples SED-1 and SED-4 as common laboratory contaminants. These lines of evidence suggest that detections of acetone and methylene chloride in sediment samples are likely due to laboratory contamination.

SECTION FOUR Summary

The following summarizes the findings of the Preliminary Site Assessment of the unnamed tributary of Long Creek that runs adjacent to the Sims Legion Park Landfill:

- Low levels of VOCs detected in the samples are likely from laboratory contamination.
- No 1,4-dioxane was detected in samples above the laboratory reporting limits.
- No SVOCs were detected in samples above the laboratory reporting limits.
- The metals detected in SED-4 are likely related to landfill contamination, but the low levels of arsenic at the other locations are within the range of naturally occurring arsenic in North Carolina piedmont soils.

Based on the Preliminary Site Assessment, contamination from the landfill has not impacted the sediments in the unnamed tributary of Long Creek.

AECOM, Technical and Cost Proposal, Preliminary Site Assessment, August 3, 2016.

Environmental Protection Agency, Region IV Soil Sampling Standard Operating Procedures, August 20, 2014.

Environmental Protection Agency, Region 4 Ecological Risk Assessment Supplemental Guidance (Interim Draft), August 25, 2015.

North Carolina Department of Environmental Quality, Proposed Sampling Plan, June 22, 2016.

North Carolina Department of Transportation, Request for Technical and Cost Proposal, Preliminary Site Assessment, July 13, 2016.

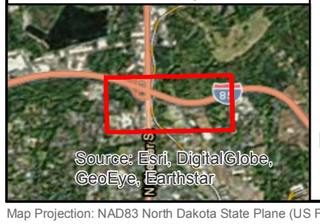
North Carolina Department of Transportation, Notice to Proceed - Preliminary Site Assessment, August 5, 2016.

Shacklette, H.T., Boerngen, J.G., 1984, Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, United States Geological Survey Professional Paper 1270, 105 p.

Figures

Path: Q:\DCS\Projects\L-AECOM\Geomatics\GIS\Projects\D\DOT\Buffalo_Rd\I_5000_Project\MXD\2016_09\I_5000_Figure_1_11x17.mxd

Index Map



Legend

- Sediment Sample Location
- Watercourse
- Greenway
- 2ft_Contourse_SEL
- Approximate Limits of Landfill

N
W E
S

PSA Sediment Sample Location Map - Phase 1

Preliminary Site Assessment
NCDOT State Project I-5000, WBS Element 41153.1.1
Gaston County I-85/US 321 Geometric Safety
Improvements to Interchange

0 150 300 600 Feet

1 inch = 300 feet

AECOM

July 2016

Figure 1

Map Projection: NAD83 North Dakota State Plane (US Feet)

Tables

Table 1
Sediment Analytical Results
Phase I Preliminary Site Assessment
NCDOT I-5000 WBS# 41153.1.1
Gastonia, North Carolina

Client Sample ID:	Units	NC Soil IHSB PSRG			Ecological Freshwater Sediment Screening Values [1]	SED-1	SED-2	SED-3	SED-3-DUP	SED-4	SED-5	SED-6
Lab Sample ID:		Residential Health-Based	Industrial/ Commercial Health-Based	Protection of Groundwater		92310272001	92310272002	92310272003	92310272007	92310272004	92310272005	92310272006
Date Sampled:						8/25/2016	8/25/2016	8/25/2016	8/25/2016	8/25/2016	8/25/2016	8/25/2016
Matrix:						Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
VOCs by SW-846 Method 8260												
Acetone	µg/kg	12,200,000	100,000,000	24,000	40	23.8 J	11.2 J	**99.8 J**	<12.4	**49.4 J**	**54.0 J**	13.6 J
Methylene Chloride	µg/kg	57,000	640,000	23	183	18.1	6.5 J	16.9 J	<3.7	**31.1**	**24.0 J**	18.0 J
Tentatively Identified Compounds	µg/kg	NE	NE	NE	NE	4.5	5.5	ND	ND	ND	ND	2.65
VOCs by SW-846 Method 8260 SIM												
1,4-Dioxane	µg/kg	5,300	24,000	12	NE	<11.8	<11.2	<11.6	<10.6	<11.7	<11.3	<10.8
SVOCs by SW-846 Method 8270												
Target Analyte	µg/kg	NE	NE	NE	NE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Metals by SW-846 Method 6010												
Antimony	mg/kg	6.2	94	0.9	2	<0.37	<0.32	<0.32	<0.26	**1.2**	<0.30	<0.24
Arsenic	mg/kg	0.68	3	5.8	9.8	**0.68 J**	**1.1**	0.44 J	0.58 J	**6.5**	0.53 J	**0.74**
Beryllium	mg/kg	32	460	63	NE	0.13	0.16	0.14	0.1	0.36	0.27	0.25
Cadmium	mg/kg	14.2	196	3	1	<0.048	0.042 J	<0.041	<0.034	<0.044	<0.038	<0.031
Chromium, total	mg/kg	24,000	100,000	36,000	43.4	2.3	1.7	1.3	1.2	13.4	1.9	2.8
Chromium, hexavalent	mg/kg	0.30	6.3	3.8	43.4 [2]	<5.1	<6.6	<6.6	<5.9	<6.2	<6.7	<6.7
Copper	mg/kg	620	9400	700	31.6	5.2	6.7	2.9	2.5	**32.7**	4.5	4.3
Lead	mg/kg	400	800	270	35.8	9.9	12.9	6.1	5.9	**93.2**	11.2	7.1
Manganese	mg/kg	360	5200	NE	460	95.8	33.5	38.3	35.8	235	50	48.4
Mercury	mg/kg	2.2	3.13	1	0.18	0.0027	0.0026	0.0021 J	0.003	0.018	0.0042	0.0024 J
Nickel	mg/kg	300	4400	130	22.7	1.1	0.66	0.68	0.6	7.8	0.89	1.1
Selenium	mg/kg	78	116	2.1	11	<0.48	<0.42	<0.41	<0.34	0.80 J	<0.38	<0.31
Zinc	mg/kg	4600	70000	1200	121	16.2	17.4	25.9	10.8	72.5	59.5	23.5

Notes:

[1] Region 4 ecological risk assessment supplemental guidance interim draft (EPA, 2015). Tables 2a and 2b Region 4 sediment screening values for hazardous waste sites.

[2] The standard used is for total chromium

Bold and shaded value indicates the sample concentration is greater than the lowest NC IHSB PSRG and/or EPA Region 4 Ecological Freshwater Sediment Screening Value
BDL - Below laboratory detection limits
DUP - Duplicate sample
< - Not detected at the specified detection limit
J - Estimated value
mg/kg - Milligrams per kilogram
NA - Not analyzed
NC Soil IHSB PSRG - North Carolina Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals, as of April 2016
ND - Not detected
NE - Not established
µg/kg - Micrograms per kilogram

Table 2
Blank Sample Analytical Results
Phase I Preliminary Site Assessment
NCDOT I-5000 WBS# 41153.1.1
Gastonia, North Carolina

Client Sample ID:	Units	EB-01-082516	Trip Blank 1
Lab Sample ID:		92310272008	92310272009
Date Sampled:		8/25/2016	8/25/2016
Matrix:		Water	Water
Sample Type:		Equipment Blank	Trip Blank
VOCs by SW-846 Method 8260			
Acetone	µg/L	<10	<25
Methylene Chloride	µg/L	<0.97	**1.0 J**
Tentatively Identified Compounds	µg/L	**13.5**	ND
VOCs by SW-846 Method 8260 SIM			
1,4-Dioxane	µg/L	<1.9	NA
SVOCs by SW-846 Method 8270			
Benzo(b)fluoranthene	µg/L	**1.0 J**	NA
Benzo(k)fluoranthene	µg/L	**1.2 J**	NA
Chrysene	µg/L	**1.2 J**	NA
3,3'-Dichlorobenzidine	µg/L	**1.6 J**	NA
Tentatively Identified Compounds	µg/L	**45.2**	NA
Metals by SW-846 Method 6010			
Antimony	µg/L	<3.9	NA
Arsenic	µg/L	<5.0	NA
Beryllium	µg/L	<0.5	NA
Cadmium	µg/L	<0.5	NA
Chromium, total	µg/L	<2.5	NA
Chromium, hexavalent	µg/L	<0.010	NA
Copper	µg/L	<2.5	NA
Lead	µg/L	<2.5	NA
Manganese	µg/L	<2.5	NA
Mercury	µg/L	<0.10	NA
Nickel	µg/L	<2.5	NA
Selenium	µg/L	<5	NA
Zinc	µg/L	**8.2 J**	NA

Notes:
< - Not detected at the specified detection limit
J - Estimated value
NA - Not analyzed
ND - Not detected
µg/L - Micrograms per liter
Bold value indicates constituent was detected

Appendix A
Laboratory Analytical Reports

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 14, 2016

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

RE: Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Dear Chemical Engineer:
Enclosed are the analytical results for sample(s) received by the laboratory on August 25, 2016. 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,

Nicole Gasiorowski

Nicole Gasiorowski
nicole.gasiorowski@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92310272001	**Sed-1**	Solid	08/25/16 08:45	08/25/16 17:26
92310272002	**Sed-2**	Solid	08/25/16 09:30	08/25/16 17:26
92310272003	**Sed-3**	Solid	08/25/16 10:15	08/25/16 17:26
92310272004	**Sed-4**	Solid	08/25/16 11:45	08/25/16 17:26
92310272005	**Sed-5**	Solid	08/25/16 12:45	08/25/16 17:26
92310272006	**Sed-6**	Solid	08/25/16 13:00	08/25/16 17:26
92310272007	**Sed-3-Dup**	Solid	08/25/16 10:20	08/25/16 17:26
92310272008	**EB-01-082516**	Water	08/25/16 12:15	08/25/16 17:26
92310272009	**Trip Blank 1**	Water	08/25/16 00:00	08/25/16 17:26

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92310272001	**Sed-1**	EPA 6010	SH1	13	PASI-A
		EPA 7471	WAB	1	PASI-A
		EPA 8270	BPJ	73	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	55	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
		EPA 7196	DMN	1	PASI-A
92310272002	**Sed-2**	EPA 6010	SH1	13	PASI-A
		EPA 7471	WAB	1	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	55	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
		EPA 7196	DMN	1	PASI-A
92310272003	**Sed-3**	EPA 6010	SH1	13	PASI-A
		EPA 7471	WAB	1	PASI-A
		EPA 8270	BPJ	73	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	54	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
		EPA 7196	DMN	1	PASI-A
92310272004	**Sed-4**	EPA 6010	SH1	13	PASI-A
		EPA 7471	WAB	1	PASI-A
		EPA 8270	BPJ	73	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	54	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
		EPA 7196	DMN	1	PASI-A
92310272005	**Sed-5**	EPA 6010	SH1	13	PASI-A
		EPA 7471	WAB	1	PASI-A
		EPA 8270	BPJ	73	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	54	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
		EPA 7196	DMN	1	PASI-A
92310272006	**Sed-6**	EPA 6010	SH1	13	PASI-A
		EPA 7471	WAB	1	PASI-A

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8270	BPJ	73	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	60	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
		EPA 7196	DMN	1	PASI-A
92310272007	**Sed-3-Dup**	EPA 6010	SH1	13	PASI-A
		EPA 7471	WAB	1	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	54	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
		EPA 7196	DMN	1	PASI-A
92310272008	**EB-01-082516**	EPA 6010	JMW	13	PASI-A
		EPA 7470	WAB	1	PASI-A
		EPA 8270	BPJ	77	PASI-C
		EPA 8260	NB	56	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
		EPA 7196	SER	1	PASI-A
92310272009	**Trip Blank 1**	EPA 8260	NB	54	PASI-C

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NCDOT West Central
Date: September 14, 2016

General Information:
8 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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 3010A with any exceptions noted below.

The samples were prepared in accordance with EPA 3050 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.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

QC Batch: 326482

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 35261878001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1808720)
  - Antimony
  - Arsenic
  - Chromium
  - Manganese
  - Nickel
  - Selenium
  - Zinc
- MSD (Lab ID: 1808721)
  - Antimony
  - Arsenic
  - Lead
  - Manganese
  - Nickel
  - Selenium

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NCDOT West Central
Date: September 14, 2016

QC Batch: 326482

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 35261878001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Thallium
- Zinc

R1: RPD value was outside control limits.

- MSD (Lab ID: 1808721)
  - Antimony
  - Arsenic
  - Beryllium
  - Cadmium
  - Selenium
  - Silver
  - Thallium

Additional Comments:

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 7470**
Description: 7470 Mercury
Client: NCDOT West Central
Date: September 14, 2016

General Information:
1 sample was analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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 7470 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.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 7471**
Description: 7471 Mercury
Client: NCDOT West Central
Date: September 14, 2016

General Information:
7 samples were analyzed for EPA 7471. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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 7471 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.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

QC Batch: 326750

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92309592001

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 1810200)
  - Mercury
- MSD (Lab ID: 1810201)
  - Mercury

R1: RPD value was outside control limits.

- MSD (Lab ID: 1810201)
  - Mercury

Additional Comments:

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 8270**
Description: 8270 MSSV Microwave
Client: NCDOT West Central
Date: September 14, 2016

General Information:
7 samples were analyzed for EPA 8270. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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.

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.

QC Batch: 326811

S0: Surrogate recovery outside laboratory control limits.

- Sed-1 (Lab ID: 92310272001)
  - Terphenyl-d14 (S)
- Sed-2 (Lab ID: 92310272002)
  - Terphenyl-d14 (S)
- Sed-4 (Lab ID: 92310272004)
  - Terphenyl-d14 (S)
- Sed-5 (Lab ID: 92310272005)
  - Terphenyl-d14 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 8270**
Description: 8270 MSSV Microwave
Client: NCDOT West Central
Date: September 14, 2016

QC Batch: 326811

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92309592001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1810385)
  - 2,4-Dinitrophenol
  - Benzaldehyde
  - Biphenyl (Diphenyl)
  - Caprolactam
  - Carbazole

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

Additional Comments:

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 8270**
Description: 8270 MSSV Semivolatile Organic
Client: NCDOT West Central
Date: September 14, 2016

General Information:
1 sample was analyzed for EPA 8270. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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 3510 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, where applicable, 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.

QC Batch: 326328

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92310069002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1808054)
  - 2,3,4,6-Tetrachlorophenol
  - 2,4-Dinitrotoluene
  - 2,6-Dinitrotoluene
  - 2-Chloronaphthalene
  - 4-Bromophenylphenyl ether
  - Benzo(b)fluoranthene
  - Butylbenzylphthalate
  - Caprolactam
  - bis(2-Ethylhexyl)phthalate

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 8270**
Description: 8270 MSSV Semivolatile Organic
Client: NCDOT West Central
Date: September 14, 2016

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

Additional Comments:

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 8260B Mod.**
Description: 8260 MSV SIM Soil
Client: NCDOT West Central
Date: September 14, 2016

General Information:
7 samples were analyzed for EPA 8260B Mod.. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: NCDOT West Central
Date: September 14, 2016

General Information:
2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

QC Batch: 326529

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92310259013

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1809035)
  - 2-Butanone (MEK)
  - Acetone
  - Carbon disulfide
  - Chloroethane
  - Chloromethane
  - Cyclohexane
  - Dichlorodifluoromethane
  - Methyl acetate
  - Vinyl chloride
  - trans-1,2-Dichloroethene
- MSD (Lab ID: 1809036)
  - Acetone

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: NCDOT West Central
Date: September 14, 2016

QC Batch: 326529

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92310259013

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Cyclohexane
- Vinyl chloride
- trans-1,2-Dichloroethene

Additional Comments:

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 8260B Mod.**
Description: 8260 MSV SIM
Client: NCDOT West Central
Date: September 14, 2016

General Information:
1 sample was analyzed for EPA 8260B Mod.. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: NCDOT West Central
Date: September 14, 2016

General Information:
7 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

QC Batch: 326487

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92310272001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1809743)
  - 1,2,3-Trichlorobenzene
  - 1,2,4-Trichlorobenzene
  - 1,3-Dichlorobenzene
  - 1,4-Dichlorobenzene
  - Methylene Chloride
  - Tetrachloroethene

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

Additional Comments:

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: NCDOT West Central
Date: September 14, 2016

Analyte Comments:

QC Batch: 326487

C9: Common Laboratory Contaminant.

- Sed-1 (Lab ID: 92310272001)
  - Methylene Chloride
- Sed-4 (Lab ID: 92310272004)
  - Methylene Chloride

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PROJECT NARRATIVE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Method: **EPA 7196**
Description: 7196 Chromium, Hexavalent
Client: NCDOT West Central
Date: September 14, 2016

General Information:
8 samples were analyzed for EPA 7196. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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 7196 Modified with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

QC Batch: 327093

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92310078001,92310272005

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1812330)
  - Chromium, Hexavalent
- MSD (Lab ID: 1812331)
  - Chromium, Hexavalent

Additional Comments:

Analyte Comments:

QC Batch: 327610

- MS (Lab ID: 1815204)
  - Chromium, Hexavalent

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

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-1 **Lab ID: 92310272001** Collected: 08/25/16 08:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Antimony	ND	mg/kg	0.48	0.37	1	08/29/16 21:30	08/30/16 15:29	7440-36-0	
Arsenic	**0.68J**	mg/kg	0.95	0.48	1	08/29/16 21:30	08/30/16 15:29	7440-38-2	
Beryllium	**0.13**	mg/kg	0.095	0.048	1	08/29/16 21:30	08/30/16 15:29	7440-41-7	
Cadmium	ND	mg/kg	0.095	0.048	1	08/29/16 21:30	08/30/16 15:29	7440-43-9	
Chromium	**2.3**	mg/kg	0.48	0.24	1	08/29/16 21:30	08/30/16 15:29	7440-47-3	
Copper	**5.2**	mg/kg	0.48	0.24	1	08/29/16 21:30	08/30/16 15:29	7440-50-8	
Lead	**9.9**	mg/kg	0.48	0.24	1	08/29/16 21:30	08/30/16 15:29	7439-92-1	
Manganese	**95.8**	mg/kg	0.48	0.24	1	08/29/16 21:30	08/30/16 15:29	7439-96-5	
Nickel	**1.1**	mg/kg	0.48	0.24	1	08/29/16 21:30	08/30/16 15:29	7440-02-0	
Selenium	ND	mg/kg	0.95	0.48	1	08/29/16 21:30	08/30/16 15:29	7782-49-2	
Silver	ND	mg/kg	0.48	0.24	1	08/29/16 21:30	08/30/16 15:29	7440-22-4	
Thallium	ND	mg/kg	0.95	0.48	1	08/29/16 21:30	08/30/16 15:29	7440-28-0	
Zinc	**16.2**	mg/kg	0.95	0.48	1	08/29/16 21:30	08/30/16 15:29	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.0027**	mg/kg	0.0022	0.000043	1	08/30/16 23:55	08/31/16 17:45	7439-97-6	
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	434	99.9	1	08/30/16 11:45	09/14/16 12:41	83-32-9	
Acenaphthylene	ND	ug/kg	434	103	1	08/30/16 11:45	09/14/16 12:41	208-96-8	
Acetophenone	ND	ug/kg	434	224	1	08/30/16 11:45	09/14/16 12:41	98-86-2	
Anthracene	ND	ug/kg	434	97.3	1	08/30/16 11:45	09/14/16 12:41	120-12-7	
Atrazine	ND	ug/kg	868	171	1	08/30/16 11:45	09/14/16 12:41	1912-24-9	
Benzaldehyde	ND	ug/kg	868	434	1	08/30/16 11:45	09/14/16 12:41	100-52-7	
Benzo(a)anthracene	ND	ug/kg	434	80.2	1	08/30/16 11:45	09/14/16 12:41	56-55-3	
Benzo(a)pyrene	ND	ug/kg	434	82.8	1	08/30/16 11:45	09/14/16 12:41	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	434	75.0	1	08/30/16 11:45	09/14/16 12:41	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	434	110	1	08/30/16 11:45	09/14/16 12:41	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	434	85.5	1	08/30/16 11:45	09/14/16 12:41	207-08-9	
Biphenyl (Diphenyl)	ND	ug/kg	434	137	1	08/30/16 11:45	09/14/16 12:41	92-52-4	
4-Bromophenylphenyl ether	ND	ug/kg	434	78.9	1	08/30/16 11:45	09/14/16 12:41	101-55-3	
Butylbenzylphthalate	ND	ug/kg	434	92.0	1	08/30/16 11:45	09/14/16 12:41	85-68-7	
Caprolactam	ND	ug/kg	434	75.0	1	08/30/16 11:45	09/14/16 12:41	105-60-2	
Carbazole	ND	ug/kg	434	82.8	1	08/30/16 11:45	09/14/16 12:41	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	868	89.4	1	08/30/16 11:45	09/14/16 12:41	59-50-7	
4-Chloroaniline	ND	ug/kg	2170	121	1	08/30/16 11:45	09/14/16 12:41	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	434	101	1	08/30/16 11:45	09/14/16 12:41	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	434	110	1	08/30/16 11:45	09/14/16 12:41	111-44-4	
2-Chloronaphthalene	ND	ug/kg	434	85.5	1	08/30/16 11:45	09/14/16 12:41	91-58-7	
2-Chlorophenol	ND	ug/kg	434	118	1	08/30/16 11:45	09/14/16 12:41	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	434	89.4	1	08/30/16 11:45	09/14/16 12:41	7005-72-3	
Chrysene	ND	ug/kg	434	57.9	1	08/30/16 11:45	09/14/16 12:41	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	434	92.0	1	08/30/16 11:45	09/14/16 12:41	53-70-3	
Dibenzofuran	ND	ug/kg	434	71.0	1	08/30/16 11:45	09/14/16 12:41	132-64-9	
3,3'-Dichlorobenzidine	ND	ug/kg	2170	94.7	1	08/30/16 11:45	09/14/16 12:41	91-94-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-1 **Lab ID: 92310272001** Collected: 08/25/16 08:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
2,4-Dichlorophenol	ND	ug/kg	434	94.7	1	08/30/16 11:45	09/14/16 12:41	120-83-2	
Diethylphthalate	ND	ug/kg	434	67.1	1	08/30/16 11:45	09/14/16 12:41	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	434	171	1	08/30/16 11:45	09/14/16 12:41	105-67-9	
Dimethylphthalate	ND	ug/kg	434	88.1	1	08/30/16 11:45	09/14/16 12:41	131-11-3	
Di-n-butylphthalate	ND	ug/kg	434	71.0	1	08/30/16 11:45	09/14/16 12:41	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	868	86.8	1	08/30/16 11:45	09/14/16 12:41	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	2170	71.0	1	08/30/16 11:45	09/14/16 12:41	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	434	81.5	1	08/30/16 11:45	09/14/16 12:41	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	434	90.7	1	08/30/16 11:45	09/14/16 12:41	606-20-2	
Di-n-octylphthalate	ND	ug/kg	434	90.7	1	08/30/16 11:45	09/14/16 12:41	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	434	118	1	08/30/16 11:45	09/14/16 12:41	117-81-7	
Fluoranthene	ND	ug/kg	434	63.1	1	08/30/16 11:45	09/14/16 12:41	206-44-0	
Fluorene	ND	ug/kg	434	89.4	1	08/30/16 11:45	09/14/16 12:41	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	434	75.0	1	08/30/16 11:45	09/14/16 12:41	87-68-3	
Hexachlorobenzene	ND	ug/kg	434	55.2	1	08/30/16 11:45	09/14/16 12:41	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	434	80.2	1	08/30/16 11:45	09/14/16 12:41	77-47-4	
Hexachloroethane	ND	ug/kg	434	114	1	08/30/16 11:45	09/14/16 12:41	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	434	89.4	1	08/30/16 11:45	09/14/16 12:41	193-39-5	
Isophorone	ND	ug/kg	434	97.3	1	08/30/16 11:45	09/14/16 12:41	78-59-1	
2-Methylnaphthalene	ND	ug/kg	434	93.4	1	08/30/16 11:45	09/14/16 12:41	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	434	131	1	08/30/16 11:45	09/14/16 12:41	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	434	171	1	08/30/16 11:45	09/14/16 12:41		
Naphthalene	ND	ug/kg	434	107	1	08/30/16 11:45	09/14/16 12:41	91-20-3	
2-Nitroaniline	ND	ug/kg	2170	134	1	08/30/16 11:45	09/14/16 12:41	88-74-4	
3-Nitroaniline	ND	ug/kg	2170	118	1	08/30/16 11:45	09/14/16 12:41	99-09-2	
4-Nitroaniline	ND	ug/kg	868	122	1	08/30/16 11:45	09/14/16 12:41	100-01-6	
Nitrobenzene	ND	ug/kg	434	118	1	08/30/16 11:45	09/14/16 12:41	98-95-3	
2-Nitrophenol	ND	ug/kg	434	105	1	08/30/16 11:45	09/14/16 12:41	88-75-5	
4-Nitrophenol	ND	ug/kg	2170	77.6	1	08/30/16 11:45	09/14/16 12:41	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	434	82.8	1	08/30/16 11:45	09/14/16 12:41	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	434	129	1	08/30/16 11:45	09/14/16 12:41	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/kg	434	116	1	08/30/16 11:45	09/14/16 12:41	108-60-1	
Pentachlorophenol	ND	ug/kg	2170	78.9	1	08/30/16 11:45	09/14/16 12:41	87-86-5	
Phenanthrene	ND	ug/kg	434	72.3	1	08/30/16 11:45	09/14/16 12:41	85-01-8	
Phenol	ND	ug/kg	434	130	1	08/30/16 11:45	09/14/16 12:41		
Pyrene	ND	ug/kg	434	73.6	1	08/30/16 11:45	09/14/16 12:41	129-00-0	
1,2,4,5-Tetrachlorobenzene	ND	ug/kg	434	158	1	08/30/16 11:45	09/14/16 12:41	95-94-3	
2,3,4,6-Tetrachlorophenol	ND	ug/kg	434	171	1	08/30/16 11:45	09/14/16 12:41	58-90-2	
2,4,5-Trichlorophenol	ND	ug/kg	434	134	1	08/30/16 11:45	09/14/16 12:41	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	434	96.0	1	08/30/16 11:45	09/14/16 12:41	88-06-2	
Surrogates									
2-Fluorobiphenyl (S)	48	%	30-110		1	08/30/16 11:45	09/14/16 12:41	321-60-8	
Terphenyl-d14 (S)	17	%	28-110		1	08/30/16 11:45	09/14/16 12:41	1718-51-0	S0
Phenol-d6 (S)	68	%	22-110		1	08/30/16 11:45	09/14/16 12:41	13127-88-3	
2-Fluorophenol (S)	61	%	13-110		1	08/30/16 11:45	09/14/16 12:41	367-12-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-1 **Lab ID: 92310272001** Collected: 08/25/16 08:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Surrogates									
2,4,6-Tribromophenol (S)	67	%	27-110		1	08/30/16 11:45	09/14/16 12:41	118-79-6	
Nitrobenzene-d5 (S)	59	%	23-110		1	08/30/16 11:45	09/14/16 12:41	4165-60-0	
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	11.8	11.8	1		08/26/16 11:23	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	109	%	50-150		1		08/26/16 11:23	17060-07-0	
Toluene-d8 (S)	113	%	50-150		1		08/26/16 11:23	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**23.8J**	ug/kg	83.2	8.3	1		08/26/16 16:27	67-64-1	
Benzene	ND	ug/kg	4.2	1.3	1		08/26/16 16:27	71-43-2	
Bromochloromethane	ND	ug/kg	4.2	1.4	1		08/26/16 16:27	74-97-5	
Bromodichloromethane	ND	ug/kg	4.2	1.6	1		08/26/16 16:27	75-27-4	
Bromoform	ND	ug/kg	4.2	1.9	1		08/26/16 16:27	75-25-2	
Bromomethane	ND	ug/kg	8.3	2.1	1		08/26/16 16:27	74-83-9	
2-Butanone (MEK)	ND	ug/kg	83.2	2.4	1		08/26/16 16:27	78-93-3	
Carbon disulfide	ND	ug/kg	8.3	2.5	1		08/26/16 16:27	75-15-0	
Carbon tetrachloride	ND	ug/kg	4.2	2.2	1		08/26/16 16:27	56-23-5	
Chlorobenzene	ND	ug/kg	4.2	1.6	1		08/26/16 16:27	108-90-7	
Chloroethane	ND	ug/kg	8.3	2.0	1		08/26/16 16:27	75-00-3	
Chloroform	ND	ug/kg	4.2	1.3	1		08/26/16 16:27	67-66-3	
Chloromethane	ND	ug/kg	8.3	2.0	1		08/26/16 16:27	74-87-3	
Cyclohexane	ND	ug/kg	4.2	1.3	1		08/26/16 16:27	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.2	3.0	1		08/26/16 16:27	96-12-8	
Dibromochloromethane	ND	ug/kg	4.2	1.5	1		08/26/16 16:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.2	1.5	1		08/26/16 16:27	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	4.2	1.6	1		08/26/16 16:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.2	1.7	1		08/26/16 16:27	541-73-1	M1
1,4-Dichlorobenzene	ND	ug/kg	4.2	1.4	1		08/26/16 16:27	106-46-7	M1
Dichlorodifluoromethane	ND	ug/kg	8.3	3.0	1		08/26/16 16:27	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.2	1.2	1		08/26/16 16:27	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.2	1.8	1		08/26/16 16:27	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.2	1.5	1		08/26/16 16:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.2	1.2	1		08/26/16 16:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.2	1.6	1		08/26/16 16:27	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.2	1.4	1		08/26/16 16:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	4.2	1.5	1		08/26/16 16:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.2	1.2	1		08/26/16 16:27	10061-02-6	
Ethylbenzene	ND	ug/kg	4.2	1.5	1		08/26/16 16:27	100-41-4	
2-Hexanone	ND	ug/kg	41.6	3.2	1		08/26/16 16:27	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.2	1.6	1		08/26/16 16:27	98-82-8	
Methyl acetate	ND	ug/kg	8.3	1.2	1		08/26/16 16:27	79-20-9	
Methylcyclohexane	ND	ug/kg	8.3	1.2	1		08/26/16 16:27	108-87-2	

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-1 **Lab ID: 92310272001** Collected: 08/25/16 08:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Methylene Chloride	**18.1**	ug/kg	16.6	2.5	1		08/26/16 16:27	75-09-2	C9,M1
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	41.6	3.1	1		08/26/16 16:27	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.2	1.2	1		08/26/16 16:27	1634-04-4	
Styrene	ND	ug/kg	4.2	1.5	1		08/26/16 16:27	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.2	1.6	1		08/26/16 16:27	79-34-5	
Tetrachloroethene	ND	ug/kg	4.2	1.4	1		08/26/16 16:27	127-18-4	M1
Toluene	ND	ug/kg	4.2	1.5	1		08/26/16 16:27	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.2	1.8	1		08/26/16 16:27	87-61-6	M1
1,2,4-Trichlorobenzene	ND	ug/kg	4.2	1.3	1		08/26/16 16:27	120-82-1	M1
1,1,1-Trichloroethane	ND	ug/kg	4.2	1.5	1		08/26/16 16:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.2	1.7	1		08/26/16 16:27	79-00-5	
Trichloroethene	ND	ug/kg	4.2	1.7	1		08/26/16 16:27	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.2	1.8	1		08/26/16 16:27	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	4.2	1.6	1		08/26/16 16:27	76-13-1	
Vinyl chloride	ND	ug/kg	8.3	1.5	1		08/26/16 16:27	75-01-4	
m&p-Xylene	ND	ug/kg	8.3	3.0	1		08/26/16 16:27	179601-23-1	
o-Xylene	ND	ug/kg	4.2	1.6	1		08/26/16 16:27	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		08/26/16 16:27	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		08/26/16 16:27	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-132		1		08/26/16 16:27	17060-07-0	
Tentatively Identified Compounds									
1-Pentene, 2-methyl-	**4.5**	ug/kg			1		08/26/16 16:27	763-29-1	N
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**24.0**	%	0.10	0.10	1		08/29/16 06:41		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196 Preparation Method: EPA 7196 Modified								
Chromium, Hexavalent	ND	mg/kg	5.1	5.1	1	09/01/16 13:10	09/01/16 17:52	18540-29-9	

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-2 **Lab ID: 92310272002** Collected: 08/25/16 09:30 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Antimony	ND	mg/kg	0.42	0.32	1	08/29/16 21:30	08/30/16 15:32	7440-36-0	
Arsenic	**1.1**	mg/kg	0.83	0.42	1	08/29/16 21:30	08/30/16 15:32	7440-38-2	
Beryllium	**0.16**	mg/kg	0.083	0.042	1	08/29/16 21:30	08/30/16 15:32	7440-41-7	
Cadmium	**0.042J**	mg/kg	0.083	0.042	1	08/29/16 21:30	08/30/16 15:32	7440-43-9	
Chromium	**1.7**	mg/kg	0.42	0.21	1	08/29/16 21:30	08/30/16 15:32	7440-47-3	
Copper	**6.7**	mg/kg	0.42	0.21	1	08/29/16 21:30	08/30/16 15:32	7440-50-8	
Lead	**12.9**	mg/kg	0.42	0.21	1	08/29/16 21:30	08/30/16 15:32	7439-92-1	
Manganese	**33.5**	mg/kg	0.42	0.21	1	08/29/16 21:30	08/30/16 15:32	7439-96-5	
Nickel	**0.66**	mg/kg	0.42	0.21	1	08/29/16 21:30	08/30/16 15:32	7440-02-0	
Selenium	ND	mg/kg	0.83	0.42	1	08/29/16 21:30	08/30/16 15:32	7782-49-2	
Silver	ND	mg/kg	0.42	0.21	1	08/29/16 21:30	08/30/16 15:32	7440-22-4	
Thallium	ND	mg/kg	0.83	0.42	1	08/29/16 21:30	08/30/16 15:32	7440-28-0	
Zinc	**17.4**	mg/kg	0.83	0.42	1	08/29/16 21:30	08/30/16 15:32	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.0026**	mg/kg	0.0025	0.000051	1	08/30/16 23:55	08/31/16 17:48	7439-97-6	
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	434	100	1	08/30/16 11:45	09/14/16 13:09	83-32-9	
Acenaphthylene	ND	ug/kg	434	103	1	08/30/16 11:45	09/14/16 13:09	208-96-8	
Acetophenone	ND	ug/kg	434	224	1	08/30/16 11:45	09/14/16 13:09	98-86-2	
Anthracene	ND	ug/kg	434	97.4	1	08/30/16 11:45	09/14/16 13:09	120-12-7	
Atrazine	ND	ug/kg	869	171	1	08/30/16 11:45	09/14/16 13:09	1912-24-9	
Benzaldehyde	ND	ug/kg	869	434	1	08/30/16 11:45	09/14/16 13:09	100-52-7	
Benzo(a)anthracene	ND	ug/kg	434	80.3	1	08/30/16 11:45	09/14/16 13:09	56-55-3	
Benzo(a)pyrene	ND	ug/kg	434	82.9	1	08/30/16 11:45	09/14/16 13:09	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	434	75.0	1	08/30/16 11:45	09/14/16 13:09	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	434	111	1	08/30/16 11:45	09/14/16 13:09	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	434	85.6	1	08/30/16 11:45	09/14/16 13:09	207-08-9	
Biphenyl (Diphenyl)	ND	ug/kg	434	137	1	08/30/16 11:45	09/14/16 13:09	92-52-4	
4-Bromophenylphenyl ether	ND	ug/kg	434	79.0	1	08/30/16 11:45	09/14/16 13:09	101-55-3	
Butylbenzylphthalate	ND	ug/kg	434	92.1	1	08/30/16 11:45	09/14/16 13:09	85-68-7	
Caprolactam	ND	ug/kg	434	75.0	1	08/30/16 11:45	09/14/16 13:09	105-60-2	
Carbazole	ND	ug/kg	434	82.9	1	08/30/16 11:45	09/14/16 13:09	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	869	89.5	1	08/30/16 11:45	09/14/16 13:09	59-50-7	
4-Chloroaniline	ND	ug/kg	2170	121	1	08/30/16 11:45	09/14/16 13:09	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	434	101	1	08/30/16 11:45	09/14/16 13:09	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	434	111	1	08/30/16 11:45	09/14/16 13:09	111-44-4	
2-Chloronaphthalene	ND	ug/kg	434	85.6	1	08/30/16 11:45	09/14/16 13:09	91-58-7	
2-Chlorophenol	ND	ug/kg	434	118	1	08/30/16 11:45	09/14/16 13:09	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	434	89.5	1	08/30/16 11:45	09/14/16 13:09	7005-72-3	
Chrysene	ND	ug/kg	434	57.9	1	08/30/16 11:45	09/14/16 13:09	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	434	92.1	1	08/30/16 11:45	09/14/16 13:09	53-70-3	
Dibenzofuran	ND	ug/kg	434	71.1	1	08/30/16 11:45	09/14/16 13:09	132-64-9	
3,3'-Dichlorobenzidine	ND	ug/kg	2170	94.8	1	08/30/16 11:45	09/14/16 13:09	91-94-1	

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-2 **Lab ID: 92310272002** Collected: 08/25/16 09:30 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
2,4-Dichlorophenol	ND	ug/kg	434	94.8	1	08/30/16 11:45	09/14/16 13:09	120-83-2	
Diethylphthalate	ND	ug/kg	434	67.1	1	08/30/16 11:45	09/14/16 13:09	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	434	171	1	08/30/16 11:45	09/14/16 13:09	105-67-9	
Dimethylphthalate	ND	ug/kg	434	88.2	1	08/30/16 11:45	09/14/16 13:09	131-11-3	
Di-n-butylphthalate	ND	ug/kg	434	71.1	1	08/30/16 11:45	09/14/16 13:09	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	869	86.9	1	08/30/16 11:45	09/14/16 13:09	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	2170	71.1	1	08/30/16 11:45	09/14/16 13:09	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	434	81.6	1	08/30/16 11:45	09/14/16 13:09	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	434	90.8	1	08/30/16 11:45	09/14/16 13:09	606-20-2	
Di-n-octylphthalate	ND	ug/kg	434	90.8	1	08/30/16 11:45	09/14/16 13:09	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	434	118	1	08/30/16 11:45	09/14/16 13:09	117-81-7	
Fluoranthene	ND	ug/kg	434	63.2	1	08/30/16 11:45	09/14/16 13:09	206-44-0	
Fluorene	ND	ug/kg	434	89.5	1	08/30/16 11:45	09/14/16 13:09	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	434	75.0	1	08/30/16 11:45	09/14/16 13:09	87-68-3	
Hexachlorobenzene	ND	ug/kg	434	55.3	1	08/30/16 11:45	09/14/16 13:09	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	434	80.3	1	08/30/16 11:45	09/14/16 13:09	77-47-4	
Hexachloroethane	ND	ug/kg	434	115	1	08/30/16 11:45	09/14/16 13:09	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	434	89.5	1	08/30/16 11:45	09/14/16 13:09	193-39-5	
Isophorone	ND	ug/kg	434	97.4	1	08/30/16 11:45	09/14/16 13:09	78-59-1	
2-Methylnaphthalene	ND	ug/kg	434	93.4	1	08/30/16 11:45	09/14/16 13:09	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	434	132	1	08/30/16 11:45	09/14/16 13:09	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	434	171	1	08/30/16 11:45	09/14/16 13:09		
Naphthalene	ND	ug/kg	434	107	1	08/30/16 11:45	09/14/16 13:09	91-20-3	
2-Nitroaniline	ND	ug/kg	2170	134	1	08/30/16 11:45	09/14/16 13:09	88-74-4	
3-Nitroaniline	ND	ug/kg	2170	118	1	08/30/16 11:45	09/14/16 13:09	99-09-2	
4-Nitroaniline	ND	ug/kg	869	122	1	08/30/16 11:45	09/14/16 13:09	100-01-6	
Nitrobenzene	ND	ug/kg	434	118	1	08/30/16 11:45	09/14/16 13:09	98-95-3	
2-Nitrophenol	ND	ug/kg	434	105	1	08/30/16 11:45	09/14/16 13:09	88-75-5	
4-Nitrophenol	ND	ug/kg	2170	77.7	1	08/30/16 11:45	09/14/16 13:09	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	434	82.9	1	08/30/16 11:45	09/14/16 13:09	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	434	129	1	08/30/16 11:45	09/14/16 13:09	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/kg	434	116	1	08/30/16 11:45	09/14/16 13:09	108-60-1	
Pentachlorophenol	ND	ug/kg	2170	79.0	1	08/30/16 11:45	09/14/16 13:09	87-86-5	
Phenanthrene	ND	ug/kg	434	72.4	1	08/30/16 11:45	09/14/16 13:09	85-01-8	
Phenol	ND	ug/kg	434	130	1	08/30/16 11:45	09/14/16 13:09		
Pyrene	ND	ug/kg	434	73.7	1	08/30/16 11:45	09/14/16 13:09	129-00-0	
1,2,4,5-Tetrachlorobenzene	ND	ug/kg	434	158	1	08/30/16 11:45	09/14/16 13:09	95-94-3	
2,3,4,6-Tetrachlorophenol	ND	ug/kg	434	171	1	08/30/16 11:45	09/14/16 13:09	58-90-2	
2,4,5-Trichlorophenol	ND	ug/kg	434	134	1	08/30/16 11:45	09/14/16 13:09	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	434	96.1	1	08/30/16 11:45	09/14/16 13:09	88-06-2	
Surrogates									
2-Fluorobiphenyl (S)	42	%	30-110		1	08/30/16 11:45	09/14/16 13:09	321-60-8	
Terphenyl-d14 (S)	15	%	28-110		1	08/30/16 11:45	09/14/16 13:09	1718-51-0	S0
Phenol-d6 (S)	59	%	22-110		1	08/30/16 11:45	09/14/16 13:09	13127-88-3	
2-Fluorophenol (S)	58	%	13-110		1	08/30/16 11:45	09/14/16 13:09	367-12-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-2 **Lab ID: 92310272002** Collected: 08/25/16 09:30 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Surrogates									
2,4,6-Tribromophenol (S)	62	%	27-110		1	08/30/16 11:45	09/14/16 13:09	118-79-6	
Nitrobenzene-d5 (S)	58	%	23-110		1	08/30/16 11:45	09/14/16 13:09	4165-60-0	
Tentatively Identified Compounds									
18-Norabietane	**260**	ug/kg			1	08/30/16 11:45	09/14/16 13:09	1000293-16-	N
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	11.2	11.2	1		08/26/16 11:42	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	117	%	50-150		1		08/26/16 11:42	17060-07-0	
Toluene-d8 (S)	118	%	50-150		1		08/26/16 11:42	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**11.2J**	ug/kg	102	10.2	1		08/26/16 16:47	67-64-1	
Benzene	ND	ug/kg	5.1	1.6	1		08/26/16 16:47	71-43-2	
Bromochloromethane	ND	ug/kg	5.1	1.7	1		08/26/16 16:47	74-97-5	
Bromodichloromethane	ND	ug/kg	5.1	1.9	1		08/26/16 16:47	75-27-4	
Bromoform	ND	ug/kg	5.1	2.4	1		08/26/16 16:47	75-25-2	
Bromomethane	ND	ug/kg	10.2	2.6	1		08/26/16 16:47	74-83-9	
2-Butanone (MEK)	ND	ug/kg	102	3.0	1		08/26/16 16:47	78-93-3	
Carbon disulfide	ND	ug/kg	10.2	3.1	1		08/26/16 16:47	75-15-0	
Carbon tetrachloride	ND	ug/kg	5.1	2.7	1		08/26/16 16:47	56-23-5	
Chlorobenzene	ND	ug/kg	5.1	1.9	1		08/26/16 16:47	108-90-7	
Chloroethane	ND	ug/kg	10.2	2.5	1		08/26/16 16:47	75-00-3	
Chloroform	ND	ug/kg	5.1	1.6	1		08/26/16 16:47	67-66-3	
Chloromethane	ND	ug/kg	10.2	2.5	1		08/26/16 16:47	74-87-3	
Cyclohexane	ND	ug/kg	5.1	1.6	1		08/26/16 16:47	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.1	3.7	1		08/26/16 16:47	96-12-8	
Dibromochloromethane	ND	ug/kg	5.1	1.8	1		08/26/16 16:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.1	1.8	1		08/26/16 16:47	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	5.1	1.9	1		08/26/16 16:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.1	2.0	1		08/26/16 16:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.1	1.7	1		08/26/16 16:47	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.2	3.7	1		08/26/16 16:47	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.1	1.5	1		08/26/16 16:47	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.1	2.3	1		08/26/16 16:47	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.1	1.8	1		08/26/16 16:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.1	1.4	1		08/26/16 16:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.1	1.9	1		08/26/16 16:47	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		08/26/16 16:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	5.1	1.8	1		08/26/16 16:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.1	1.5	1		08/26/16 16:47	10061-02-6	
Ethylbenzene	ND	ug/kg	5.1	1.8	1		08/26/16 16:47	100-41-4	
2-Hexanone	ND	ug/kg	51.2	4.0	1		08/26/16 16:47	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.1	1.9	1		08/26/16 16:47	98-82-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-2 **Lab ID: 92310272002** Collected: 08/25/16 09:30 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Methyl acetate	ND	ug/kg	10.2	1.4	1		08/26/16 16:47	79-20-9	
Methylcyclohexane	ND	ug/kg	10.2	1.5	1		08/26/16 16:47	108-87-2	
Methylene Chloride	**6.5J**	ug/kg	20.5	3.1	1		08/26/16 16:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	51.2	3.8	1		08/26/16 16:47	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.1	1.5	1		08/26/16 16:47	1634-04-4	
Styrene	ND	ug/kg	5.1	1.8	1		08/26/16 16:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.1	1.9	1		08/26/16 16:47	79-34-5	
Tetrachloroethene	ND	ug/kg	5.1	1.7	1		08/26/16 16:47	127-18-4	
Toluene	ND	ug/kg	5.1	1.8	1		08/26/16 16:47	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.1	2.3	1		08/26/16 16:47	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.1	1.6	1		08/26/16 16:47	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.1	1.8	1		08/26/16 16:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.1	2.1	1		08/26/16 16:47	79-00-5	
Trichloroethene	ND	ug/kg	5.1	2.1	1		08/26/16 16:47	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.1	2.3	1		08/26/16 16:47	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5.1	1.9	1		08/26/16 16:47	76-13-1	
Vinyl chloride	ND	ug/kg	10.2	1.8	1		08/26/16 16:47	75-01-4	
m&p-Xylene	ND	ug/kg	10.2	3.7	1		08/26/16 16:47	179601-23-1	
o-Xylene	ND	ug/kg	5.1	1.9	1		08/26/16 16:47	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		08/26/16 16:47	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		08/26/16 16:47	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		08/26/16 16:47	17060-07-0	
Tentatively Identified Compounds									
Propane, 2-cyclopropyl-	**5.5**	ug/kg			1		08/26/16 16:47	3638-35-5	N
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**24.0**	%	0.10	0.10	1		08/29/16 06:41		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196 Preparation Method: EPA 7196 Modified								
Chromium, Hexavalent	ND	mg/kg	6.6	6.6	1	09/01/16 13:10	09/01/16 17:52	18540-29-9	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-3 **Lab ID: 92310272003** Collected: 08/25/16 10:15 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Antimony	ND	mg/kg	0.41	0.32	1	08/29/16 21:30	08/30/16 15:35	7440-36-0	
Arsenic	**0.44J**	mg/kg	0.82	0.41	1	08/29/16 21:30	08/30/16 15:35	7440-38-2	
Beryllium	**0.14**	mg/kg	0.082	0.041	1	08/29/16 21:30	08/30/16 15:35	7440-41-7	
Cadmium	ND	mg/kg	0.082	0.041	1	08/29/16 21:30	08/30/16 15:35	7440-43-9	
Chromium	**1.3**	mg/kg	0.41	0.20	1	08/29/16 21:30	08/30/16 15:35	7440-47-3	
Copper	**2.9**	mg/kg	0.41	0.20	1	08/29/16 21:30	08/30/16 15:35	7440-50-8	
Lead	**6.1**	mg/kg	0.41	0.20	1	08/29/16 21:30	08/30/16 15:35	7439-92-1	
Manganese	**38.3**	mg/kg	0.41	0.20	1	08/29/16 21:30	08/30/16 15:35	7439-96-5	
Nickel	**0.68**	mg/kg	0.41	0.20	1	08/29/16 21:30	08/30/16 15:35	7440-02-0	
Selenium	ND	mg/kg	0.82	0.41	1	08/29/16 21:30	08/30/16 15:35	7782-49-2	
Silver	ND	mg/kg	0.41	0.20	1	08/29/16 21:30	08/30/16 15:35	7440-22-4	
Thallium	ND	mg/kg	0.82	0.41	1	08/29/16 21:30	08/30/16 15:35	7440-28-0	
Zinc	**25.9**	mg/kg	0.82	0.41	1	08/29/16 21:30	08/30/16 15:35	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.0021J**	mg/kg	0.0031	0.000062	1	08/30/16 23:55	08/31/16 17:50	7439-97-6	
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	426	98.2	1	08/30/16 11:45	09/14/16 13:37	83-32-9	
Acenaphthylene	ND	ug/kg	426	101	1	08/30/16 11:45	09/14/16 13:37	208-96-8	
Acetophenone	ND	ug/kg	426	220	1	08/30/16 11:45	09/14/16 13:37	98-86-2	
Anthracene	ND	ug/kg	426	95.6	1	08/30/16 11:45	09/14/16 13:37	120-12-7	
Atrazine	ND	ug/kg	853	168	1	08/30/16 11:45	09/14/16 13:37	1912-24-9	
Benzaldehyde	ND	ug/kg	853	426	1	08/30/16 11:45	09/14/16 13:37	100-52-7	
Benzo(a)anthracene	ND	ug/kg	426	78.8	1	08/30/16 11:45	09/14/16 13:37	56-55-3	
Benzo(a)pyrene	ND	ug/kg	426	81.4	1	08/30/16 11:45	09/14/16 13:37	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	426	73.6	1	08/30/16 11:45	09/14/16 13:37	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	426	109	1	08/30/16 11:45	09/14/16 13:37	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	426	84.0	1	08/30/16 11:45	09/14/16 13:37	207-08-9	
Biphenyl (Diphenyl)	ND	ug/kg	426	134	1	08/30/16 11:45	09/14/16 13:37	92-52-4	
4-Bromophenylphenyl ether	ND	ug/kg	426	77.5	1	08/30/16 11:45	09/14/16 13:37	101-55-3	
Butylbenzylphthalate	ND	ug/kg	426	90.4	1	08/30/16 11:45	09/14/16 13:37	85-68-7	
Caprolactam	ND	ug/kg	426	73.6	1	08/30/16 11:45	09/14/16 13:37	105-60-2	
Carbazole	ND	ug/kg	426	81.4	1	08/30/16 11:45	09/14/16 13:37	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	853	87.8	1	08/30/16 11:45	09/14/16 13:37	59-50-7	
4-Chloroaniline	ND	ug/kg	2130	119	1	08/30/16 11:45	09/14/16 13:37	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	426	99.5	1	08/30/16 11:45	09/14/16 13:37	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	426	109	1	08/30/16 11:45	09/14/16 13:37	111-44-4	
2-Chloronaphthalene	ND	ug/kg	426	84.0	1	08/30/16 11:45	09/14/16 13:37	91-58-7	
2-Chlorophenol	ND	ug/kg	426	116	1	08/30/16 11:45	09/14/16 13:37	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	426	87.8	1	08/30/16 11:45	09/14/16 13:37	7005-72-3	
Chrysene	ND	ug/kg	426	56.8	1	08/30/16 11:45	09/14/16 13:37	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	426	90.4	1	08/30/16 11:45	09/14/16 13:37	53-70-3	
Dibenzofuran	ND	ug/kg	426	69.8	1	08/30/16 11:45	09/14/16 13:37	132-64-9	
3,3'-Dichlorobenzidine	ND	ug/kg	2130	93.0	1	08/30/16 11:45	09/14/16 13:37	91-94-1	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-3 **Lab ID: 92310272003** Collected: 08/25/16 10:15 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
2,4-Dichlorophenol	ND	ug/kg	426	93.0	1	08/30/16 11:45	09/14/16 13:37	120-83-2	
Diethylphthalate	ND	ug/kg	426	65.9	1	08/30/16 11:45	09/14/16 13:37	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	426	168	1	08/30/16 11:45	09/14/16 13:37	105-67-9	
Dimethylphthalate	ND	ug/kg	426	86.6	1	08/30/16 11:45	09/14/16 13:37	131-11-3	
Di-n-butylphthalate	ND	ug/kg	426	69.8	1	08/30/16 11:45	09/14/16 13:37	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	853	85.3	1	08/30/16 11:45	09/14/16 13:37	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	2130	69.8	1	08/30/16 11:45	09/14/16 13:37	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	426	80.1	1	08/30/16 11:45	09/14/16 13:37	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	426	89.1	1	08/30/16 11:45	09/14/16 13:37	606-20-2	
Di-n-octylphthalate	ND	ug/kg	426	89.1	1	08/30/16 11:45	09/14/16 13:37	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	426	116	1	08/30/16 11:45	09/14/16 13:37	117-81-7	
Fluoranthene	ND	ug/kg	426	62.0	1	08/30/16 11:45	09/14/16 13:37	206-44-0	
Fluorene	ND	ug/kg	426	87.8	1	08/30/16 11:45	09/14/16 13:37	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	426	73.6	1	08/30/16 11:45	09/14/16 13:37	87-68-3	
Hexachlorobenzene	ND	ug/kg	426	54.3	1	08/30/16 11:45	09/14/16 13:37	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	426	78.8	1	08/30/16 11:45	09/14/16 13:37	77-47-4	
Hexachloroethane	ND	ug/kg	426	112	1	08/30/16 11:45	09/14/16 13:37	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	426	87.8	1	08/30/16 11:45	09/14/16 13:37	193-39-5	
Isophorone	ND	ug/kg	426	95.6	1	08/30/16 11:45	09/14/16 13:37	78-59-1	
2-Methylnaphthalene	ND	ug/kg	426	91.7	1	08/30/16 11:45	09/14/16 13:37	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	426	129	1	08/30/16 11:45	09/14/16 13:37	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	426	168	1	08/30/16 11:45	09/14/16 13:37		
Naphthalene	ND	ug/kg	426	105	1	08/30/16 11:45	09/14/16 13:37	91-20-3	
2-Nitroaniline	ND	ug/kg	2130	132	1	08/30/16 11:45	09/14/16 13:37	88-74-4	
3-Nitroaniline	ND	ug/kg	2130	116	1	08/30/16 11:45	09/14/16 13:37	99-09-2	
4-Nitroaniline	ND	ug/kg	853	120	1	08/30/16 11:45	09/14/16 13:37	100-01-6	
Nitrobenzene	ND	ug/kg	426	116	1	08/30/16 11:45	09/14/16 13:37	98-95-3	
2-Nitrophenol	ND	ug/kg	426	103	1	08/30/16 11:45	09/14/16 13:37	88-75-5	
4-Nitrophenol	ND	ug/kg	2130	76.2	1	08/30/16 11:45	09/14/16 13:37	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	426	81.4	1	08/30/16 11:45	09/14/16 13:37	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	426	127	1	08/30/16 11:45	09/14/16 13:37	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/kg	426	114	1	08/30/16 11:45	09/14/16 13:37	108-60-1	
Pentachlorophenol	ND	ug/kg	2130	77.5	1	08/30/16 11:45	09/14/16 13:37	87-86-5	
Phenanthrene	ND	ug/kg	426	71.1	1	08/30/16 11:45	09/14/16 13:37	85-01-8	
Phenol	ND	ug/kg	426	128	1	08/30/16 11:45	09/14/16 13:37		
Pyrene	ND	ug/kg	426	72.3	1	08/30/16 11:45	09/14/16 13:37	129-00-0	
1,2,4,5-Tetrachlorobenzene	ND	ug/kg	426	155	1	08/30/16 11:45	09/14/16 13:37	95-94-3	
2,3,4,6-Tetrachlorophenol	ND	ug/kg	426	168	1	08/30/16 11:45	09/14/16 13:37	58-90-2	
2,4,5-Trichlorophenol	ND	ug/kg	426	132	1	08/30/16 11:45	09/14/16 13:37	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	426	94.3	1	08/30/16 11:45	09/14/16 13:37	88-06-2	
Surrogates									
2-Fluorobiphenyl (S)	66	%	30-110		1	08/30/16 11:45	09/14/16 13:37	321-60-8	
Terphenyl-d14 (S)	55	%	28-110		1	08/30/16 11:45	09/14/16 13:37	1718-51-0	
Phenol-d6 (S)	80	%	22-110		1	08/30/16 11:45	09/14/16 13:37	13127-88-3	
2-Fluorophenol (S)	71	%	13-110		1	08/30/16 11:45	09/14/16 13:37	367-12-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-3 **Lab ID: 92310272003** Collected: 08/25/16 10:15 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Surrogates									
2,4,6-Tribromophenol (S)	84	%	27-110		1	08/30/16 11:45	09/14/16 13:37	118-79-6	
Nitrobenzene-d5 (S)	74	%	23-110		1	08/30/16 11:45	09/14/16 13:37	4165-60-0	
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	11.6	11.6	1		08/26/16 12:01	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	111	%	50-150		1		08/26/16 12:01	17060-07-0	
Toluene-d8 (S)	113	%	50-150		1		08/26/16 12:01	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**99.8J**	ug/kg	116	11.6	1		08/26/16 17:06	67-64-1	
Benzene	ND	ug/kg	5.8	1.9	1		08/26/16 17:06	71-43-2	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		08/26/16 17:06	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		08/26/16 17:06	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		08/26/16 17:06	75-25-2	
Bromomethane	ND	ug/kg	11.6	2.9	1		08/26/16 17:06	74-83-9	
2-Butanone (MEK)	ND	ug/kg	116	3.4	1		08/26/16 17:06	78-93-3	
Carbon disulfide	ND	ug/kg	11.6	3.5	1		08/26/16 17:06	75-15-0	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		08/26/16 17:06	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		08/26/16 17:06	108-90-7	
Chloroethane	ND	ug/kg	11.6	2.8	1		08/26/16 17:06	75-00-3	
Chloroform	ND	ug/kg	5.8	1.9	1		08/26/16 17:06	67-66-3	
Chloromethane	ND	ug/kg	11.6	2.8	1		08/26/16 17:06	74-87-3	
Cyclohexane	ND	ug/kg	5.8	1.9	1		08/26/16 17:06	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		08/26/16 17:06	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		08/26/16 17:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		08/26/16 17:06	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		08/26/16 17:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		08/26/16 17:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		08/26/16 17:06	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.6	4.2	1		08/26/16 17:06	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		08/26/16 17:06	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.6	1		08/26/16 17:06	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		08/26/16 17:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		08/26/16 17:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		08/26/16 17:06	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		08/26/16 17:06	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		08/26/16 17:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		08/26/16 17:06	10061-02-6	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		08/26/16 17:06	100-41-4	
2-Hexanone	ND	ug/kg	58.2	4.5	1		08/26/16 17:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		08/26/16 17:06	98-82-8	
Methyl acetate	ND	ug/kg	11.6	1.6	1		08/26/16 17:06	79-20-9	
Methylcyclohexane	ND	ug/kg	11.6	1.7	1		08/26/16 17:06	108-87-2	

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-3 **Lab ID: 92310272003** Collected: 08/25/16 10:15 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Methylene Chloride	**16.9J**	ug/kg	23.3	3.5	1		08/26/16 17:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.2	4.3	1		08/26/16 17:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		08/26/16 17:06	1634-04-4	
Styrene	ND	ug/kg	5.8	2.1	1		08/26/16 17:06	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		08/26/16 17:06	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		08/26/16 17:06	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		08/26/16 17:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.6	1		08/26/16 17:06	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.9	1		08/26/16 17:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		08/26/16 17:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		08/26/16 17:06	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		08/26/16 17:06	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.6	1		08/26/16 17:06	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5.8	2.2	1		08/26/16 17:06	76-13-1	
Vinyl chloride	ND	ug/kg	11.6	2.1	1		08/26/16 17:06	75-01-4	
m&p-Xylene	ND	ug/kg	11.6	4.2	1		08/26/16 17:06	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		08/26/16 17:06	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		08/26/16 17:06	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		08/26/16 17:06	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-132		1		08/26/16 17:06	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.6**	%	0.10	0.10	1		08/29/16 06:41		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196 Preparation Method: EPA 7196 Modified								
Chromium, Hexavalent	ND	mg/kg	6.6	6.6	1	09/01/16 13:10	09/01/16 17:52	18540-29-9	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-4 **Lab ID: 92310272004** Collected: 08/25/16 11:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Antimony	**1.2**	mg/kg	0.44	0.34	1	08/29/16 21:30	08/30/16 15:38	7440-36-0	
Arsenic	**6.5**	mg/kg	0.87	0.44	1	08/29/16 21:30	08/30/16 15:38	7440-38-2	
Beryllium	**0.36**	mg/kg	0.087	0.044	1	08/29/16 21:30	08/30/16 15:38	7440-41-7	
Cadmium	ND	mg/kg	0.087	0.044	1	08/29/16 21:30	08/30/16 15:38	7440-43-9	
Chromium	**13.4**	mg/kg	0.44	0.22	1	08/29/16 21:30	08/30/16 15:38	7440-47-3	
Copper	**32.7**	mg/kg	0.44	0.22	1	08/29/16 21:30	08/30/16 15:38	7440-50-8	
Lead	**93.2**	mg/kg	0.44	0.22	1	08/29/16 21:30	08/30/16 15:38	7439-92-1	
Manganese	**235**	mg/kg	0.44	0.22	1	08/29/16 21:30	08/30/16 15:38	7439-96-5	
Nickel	**7.8**	mg/kg	0.44	0.22	1	08/29/16 21:30	08/30/16 15:38	7440-02-0	
Selenium	**0.80J**	mg/kg	0.87	0.44	1	08/29/16 21:30	08/30/16 15:38	7782-49-2	
Silver	ND	mg/kg	0.44	0.22	1	08/29/16 21:30	08/30/16 15:38	7440-22-4	
Thallium	ND	mg/kg	0.87	0.44	1	08/29/16 21:30	08/30/16 15:38	7440-28-0	
Zinc	**72.5**	mg/kg	0.87	0.44	1	08/29/16 21:30	08/30/16 15:38	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.018**	mg/kg	0.0049	0.000098	1	08/30/16 23:55	08/31/16 17:53	7439-97-6	
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	431	99.3	1	08/30/16 11:45	09/14/16 14:05	83-32-9	
Acenaphthylene	ND	ug/kg	431	102	1	08/30/16 11:45	09/14/16 14:05	208-96-8	
Acetophenone	ND	ug/kg	431	222	1	08/30/16 11:45	09/14/16 14:05	98-86-2	
Anthracene	ND	ug/kg	431	96.7	1	08/30/16 11:45	09/14/16 14:05	120-12-7	
Atrazine	ND	ug/kg	862	170	1	08/30/16 11:45	09/14/16 14:05	1912-24-9	
Benzaldehyde	ND	ug/kg	862	431	1	08/30/16 11:45	09/14/16 14:05	100-52-7	
Benzo(a)anthracene	ND	ug/kg	431	79.7	1	08/30/16 11:45	09/14/16 14:05	56-55-3	
Benzo(a)pyrene	ND	ug/kg	431	82.3	1	08/30/16 11:45	09/14/16 14:05	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	431	74.5	1	08/30/16 11:45	09/14/16 14:05	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	431	110	1	08/30/16 11:45	09/14/16 14:05	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	431	84.9	1	08/30/16 11:45	09/14/16 14:05	207-08-9	
Biphenyl (Diphenyl)	ND	ug/kg	431	136	1	08/30/16 11:45	09/14/16 14:05	92-52-4	
4-Bromophenylphenyl ether	ND	ug/kg	431	78.4	1	08/30/16 11:45	09/14/16 14:05	101-55-3	
Butylbenzylphthalate	ND	ug/kg	431	91.5	1	08/30/16 11:45	09/14/16 14:05	85-68-7	
Caprolactam	ND	ug/kg	431	74.5	1	08/30/16 11:45	09/14/16 14:05	105-60-2	
Carbazole	ND	ug/kg	431	82.3	1	08/30/16 11:45	09/14/16 14:05	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	862	88.8	1	08/30/16 11:45	09/14/16 14:05	59-50-7	
4-Chloroaniline	ND	ug/kg	2160	120	1	08/30/16 11:45	09/14/16 14:05	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	431	101	1	08/30/16 11:45	09/14/16 14:05	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	431	110	1	08/30/16 11:45	09/14/16 14:05	111-44-4	
2-Chloronaphthalene	ND	ug/kg	431	84.9	1	08/30/16 11:45	09/14/16 14:05	91-58-7	
2-Chlorophenol	ND	ug/kg	431	118	1	08/30/16 11:45	09/14/16 14:05	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	431	88.8	1	08/30/16 11:45	09/14/16 14:05	7005-72-3	
Chrysene	ND	ug/kg	431	57.5	1	08/30/16 11:45	09/14/16 14:05	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	431	91.5	1	08/30/16 11:45	09/14/16 14:05	53-70-3	
Dibenzofuran	ND	ug/kg	431	70.6	1	08/30/16 11:45	09/14/16 14:05	132-64-9	
3,3'-Dichlorobenzidine	ND	ug/kg	2160	94.1	1	08/30/16 11:45	09/14/16 14:05	91-94-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-4 **Lab ID: 92310272004** Collected: 08/25/16 11:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
2,4-Dichlorophenol	ND	ug/kg	431	94.1	1	08/30/16 11:45	09/14/16 14:05	120-83-2	
Diethylphthalate	ND	ug/kg	431	66.6	1	08/30/16 11:45	09/14/16 14:05	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	431	170	1	08/30/16 11:45	09/14/16 14:05	105-67-9	
Dimethylphthalate	ND	ug/kg	431	87.5	1	08/30/16 11:45	09/14/16 14:05	131-11-3	
Di-n-butylphthalate	ND	ug/kg	431	70.6	1	08/30/16 11:45	09/14/16 14:05	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	862	86.2	1	08/30/16 11:45	09/14/16 14:05	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	2160	70.6	1	08/30/16 11:45	09/14/16 14:05	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	431	81.0	1	08/30/16 11:45	09/14/16 14:05	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	431	90.1	1	08/30/16 11:45	09/14/16 14:05	606-20-2	
Di-n-octylphthalate	ND	ug/kg	431	90.1	1	08/30/16 11:45	09/14/16 14:05	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	431	118	1	08/30/16 11:45	09/14/16 14:05	117-81-7	
Fluoranthene	ND	ug/kg	431	62.7	1	08/30/16 11:45	09/14/16 14:05	206-44-0	
Fluorene	ND	ug/kg	431	88.8	1	08/30/16 11:45	09/14/16 14:05	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	431	74.5	1	08/30/16 11:45	09/14/16 14:05	87-68-3	
Hexachlorobenzene	ND	ug/kg	431	54.9	1	08/30/16 11:45	09/14/16 14:05	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	431	79.7	1	08/30/16 11:45	09/14/16 14:05	77-47-4	
Hexachloroethane	ND	ug/kg	431	114	1	08/30/16 11:45	09/14/16 14:05	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	431	88.8	1	08/30/16 11:45	09/14/16 14:05	193-39-5	
Isophorone	ND	ug/kg	431	96.7	1	08/30/16 11:45	09/14/16 14:05	78-59-1	
2-Methylnaphthalene	ND	ug/kg	431	92.8	1	08/30/16 11:45	09/14/16 14:05	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	431	131	1	08/30/16 11:45	09/14/16 14:05	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	431	170	1	08/30/16 11:45	09/14/16 14:05		
Naphthalene	ND	ug/kg	431	106	1	08/30/16 11:45	09/14/16 14:05	91-20-3	
2-Nitroaniline	ND	ug/kg	2160	133	1	08/30/16 11:45	09/14/16 14:05	88-74-4	
3-Nitroaniline	ND	ug/kg	2160	118	1	08/30/16 11:45	09/14/16 14:05	99-09-2	
4-Nitroaniline	ND	ug/kg	862	122	1	08/30/16 11:45	09/14/16 14:05	100-01-6	
Nitrobenzene	ND	ug/kg	431	118	1	08/30/16 11:45	09/14/16 14:05	98-95-3	
2-Nitrophenol	ND	ug/kg	431	105	1	08/30/16 11:45	09/14/16 14:05	88-75-5	
4-Nitrophenol	ND	ug/kg	2160	77.1	1	08/30/16 11:45	09/14/16 14:05	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	431	82.3	1	08/30/16 11:45	09/14/16 14:05	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	431	128	1	08/30/16 11:45	09/14/16 14:05	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/kg	431	115	1	08/30/16 11:45	09/14/16 14:05	108-60-1	
Pentachlorophenol	ND	ug/kg	2160	78.4	1	08/30/16 11:45	09/14/16 14:05	87-86-5	
Phenanthrene	ND	ug/kg	431	71.9	1	08/30/16 11:45	09/14/16 14:05	85-01-8	
Phenol	ND	ug/kg	431	129	1	08/30/16 11:45	09/14/16 14:05		
Pyrene	ND	ug/kg	431	73.2	1	08/30/16 11:45	09/14/16 14:05	129-00-0	
1,2,4,5-Tetrachlorobenzene	ND	ug/kg	431	157	1	08/30/16 11:45	09/14/16 14:05	95-94-3	
2,3,4,6-Tetrachlorophenol	ND	ug/kg	431	170	1	08/30/16 11:45	09/14/16 14:05	58-90-2	
2,4,5-Trichlorophenol	ND	ug/kg	431	133	1	08/30/16 11:45	09/14/16 14:05	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	431	95.4	1	08/30/16 11:45	09/14/16 14:05	88-06-2	
Surrogates									
2-Fluorobiphenyl (S)	50	%	30-110		1	08/30/16 11:45	09/14/16 14:05	321-60-8	
Terphenyl-d14 (S)	20	%	28-110		1	08/30/16 11:45	09/14/16 14:05	1718-51-0	S0
Phenol-d6 (S)	78	%	22-110		1	08/30/16 11:45	09/14/16 14:05	13127-88-3	
2-Fluorophenol (S)	67	%	13-110		1	08/30/16 11:45	09/14/16 14:05	367-12-4	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-4 **Lab ID: 92310272004** Collected: 08/25/16 11:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Surrogates									
2,4,6-Tribromophenol (S)	69	%	27-110		1	08/30/16 11:45	09/14/16 14:05	118-79-6	
Nitrobenzene-d5 (S)	64	%	23-110		1	08/30/16 11:45	09/14/16 14:05	4165-60-0	
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	11.7	11.7	1		08/26/16 12:19	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	111	%	50-150		1		08/26/16 12:19	17060-07-0	
Toluene-d8 (S)	113	%	50-150		1		08/26/16 12:19	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**49.4J**	ug/kg	114	11.4	1		08/26/16 17:26	67-64-1	
Benzene	ND	ug/kg	5.7	1.8	1		08/26/16 17:26	71-43-2	
Bromochloromethane	ND	ug/kg	5.7	1.9	1		08/26/16 17:26	74-97-5	
Bromodichloromethane	ND	ug/kg	5.7	2.2	1		08/26/16 17:26	75-27-4	
Bromoform	ND	ug/kg	5.7	2.6	1		08/26/16 17:26	75-25-2	
Bromomethane	ND	ug/kg	11.4	2.8	1		08/26/16 17:26	74-83-9	
2-Butanone (MEK)	ND	ug/kg	114	3.3	1		08/26/16 17:26	78-93-3	
Carbon disulfide	ND	ug/kg	11.4	3.4	1		08/26/16 17:26	75-15-0	
Carbon tetrachloride	ND	ug/kg	5.7	3.0	1		08/26/16 17:26	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	2.2	1		08/26/16 17:26	108-90-7	
Chloroethane	ND	ug/kg	11.4	2.7	1		08/26/16 17:26	75-00-3	
Chloroform	ND	ug/kg	5.7	1.8	1		08/26/16 17:26	67-66-3	
Chloromethane	ND	ug/kg	11.4	2.7	1		08/26/16 17:26	74-87-3	
Cyclohexane	ND	ug/kg	5.7	1.8	1		08/26/16 17:26	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	4.1	1		08/26/16 17:26	96-12-8	
Dibromochloromethane	ND	ug/kg	5.7	2.0	1		08/26/16 17:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	2.0	1		08/26/16 17:26	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	5.7	2.2	1		08/26/16 17:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	2.3	1		08/26/16 17:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	1.9	1		08/26/16 17:26	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.4	4.1	1		08/26/16 17:26	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.7	1.7	1		08/26/16 17:26	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	2.5	1		08/26/16 17:26	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.7	2.0	1		08/26/16 17:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1.6	1		08/26/16 17:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	2.2	1		08/26/16 17:26	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		08/26/16 17:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	5.7	2.0	1		08/26/16 17:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1.7	1		08/26/16 17:26	10061-02-6	
Ethylbenzene	ND	ug/kg	5.7	2.0	1		08/26/16 17:26	100-41-4	
2-Hexanone	ND	ug/kg	56.8	4.4	1		08/26/16 17:26	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	2.2	1		08/26/16 17:26	98-82-8	
Methyl acetate	ND	ug/kg	11.4	1.6	1		08/26/16 17:26	79-20-9	
Methylcyclohexane	ND	ug/kg	11.4	1.7	1		08/26/16 17:26	108-87-2	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-4 **Lab ID: 92310272004** Collected: 08/25/16 11:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Methylene Chloride	**31.1**	ug/kg	22.7	3.4	1		08/26/16 17:26	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.8	4.2	1		08/26/16 17:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.7	1.7	1		08/26/16 17:26	1634-04-4	
Styrene	ND	ug/kg	5.7	2.0	1		08/26/16 17:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	2.2	1		08/26/16 17:26	79-34-5	
Tetrachloroethene	ND	ug/kg	5.7	1.9	1		08/26/16 17:26	127-18-4	
Toluene	ND	ug/kg	5.7	2.0	1		08/26/16 17:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	2.5	1		08/26/16 17:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1.8	1		08/26/16 17:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.7	2.0	1		08/26/16 17:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.7	2.4	1		08/26/16 17:26	79-00-5	
Trichloroethene	**6.5**	ug/kg	5.7	2.4	1		08/26/16 17:26	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.7	2.5	1		08/26/16 17:26	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5.7	2.2	1		08/26/16 17:26	76-13-1	
Vinyl chloride	ND	ug/kg	11.4	2.0	1		08/26/16 17:26	75-01-4	
m&p-Xylene	ND	ug/kg	11.4	4.1	1		08/26/16 17:26	179601-23-1	
o-Xylene	ND	ug/kg	5.7	2.2	1		08/26/16 17:26	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		08/26/16 17:26	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		08/26/16 17:26	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-132		1		08/26/16 17:26	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**23.5**	%	0.10	0.10	1		08/29/16 06:41		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196 Preparation Method: EPA 7196 Modified								
Chromium, Hexavalent	ND	mg/kg	6.2	6.2	1	09/01/16 13:10	09/01/16 17:52	18540-29-9	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-5 **Lab ID: 92310272005** Collected: 08/25/16 12:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Antimony	ND	mg/kg	0.38	0.30	1	08/29/16 21:30	08/30/16 15:41	7440-36-0	
Arsenic	**0.53J**	mg/kg	0.76	0.38	1	08/29/16 21:30	08/30/16 15:41	7440-38-2	
Beryllium	**0.27**	mg/kg	0.076	0.038	1	08/29/16 21:30	08/30/16 15:41	7440-41-7	
Cadmium	ND	mg/kg	0.076	0.038	1	08/29/16 21:30	08/30/16 15:41	7440-43-9	
Chromium	**1.9**	mg/kg	0.38	0.19	1	08/29/16 21:30	08/30/16 15:41	7440-47-3	
Copper	**4.5**	mg/kg	0.38	0.19	1	08/29/16 21:30	08/30/16 15:41	7440-50-8	
Lead	**11.2**	mg/kg	0.38	0.19	1	08/29/16 21:30	08/30/16 15:41	7439-92-1	
Manganese	**50.0**	mg/kg	0.38	0.19	1	08/29/16 21:30	08/30/16 15:41	7439-96-5	
Nickel	**0.89**	mg/kg	0.38	0.19	1	08/29/16 21:30	08/30/16 15:41	7440-02-0	
Selenium	ND	mg/kg	0.76	0.38	1	08/29/16 21:30	08/30/16 15:41	7782-49-2	
Silver	ND	mg/kg	0.38	0.19	1	08/29/16 21:30	08/30/16 15:41	7440-22-4	
Thallium	ND	mg/kg	0.76	0.38	1	08/29/16 21:30	08/30/16 15:41	7440-28-0	
Zinc	**59.5**	mg/kg	0.76	0.38	1	08/29/16 21:30	08/30/16 15:41	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.0042**	mg/kg	0.0021	0.000043	1	08/30/16 23:55	08/31/16 17:55	7439-97-6	
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	440	101	1	08/30/16 11:45	09/14/16 14:33	83-32-9	
Acenaphthylene	ND	ug/kg	440	104	1	08/30/16 11:45	09/14/16 14:33	208-96-8	
Acetophenone	ND	ug/kg	440	227	1	08/30/16 11:45	09/14/16 14:33	98-86-2	
Anthracene	ND	ug/kg	440	98.6	1	08/30/16 11:45	09/14/16 14:33	120-12-7	
Atrazine	ND	ug/kg	880	173	1	08/30/16 11:45	09/14/16 14:33	1912-24-9	
Benzaldehyde	ND	ug/kg	880	440	1	08/30/16 11:45	09/14/16 14:33	100-52-7	
Benzo(a)anthracene	ND	ug/kg	440	81.3	1	08/30/16 11:45	09/14/16 14:33	56-55-3	
Benzo(a)pyrene	ND	ug/kg	440	84.0	1	08/30/16 11:45	09/14/16 14:33	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	440	76.0	1	08/30/16 11:45	09/14/16 14:33	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	440	112	1	08/30/16 11:45	09/14/16 14:33	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	440	86.6	1	08/30/16 11:45	09/14/16 14:33	207-08-9	
Biphenyl (Diphenyl)	ND	ug/kg	440	139	1	08/30/16 11:45	09/14/16 14:33	92-52-4	
4-Bromophenylphenyl ether	ND	ug/kg	440	80.0	1	08/30/16 11:45	09/14/16 14:33	101-55-3	
Butylbenzylphthalate	ND	ug/kg	440	93.3	1	08/30/16 11:45	09/14/16 14:33	85-68-7	
Caprolactam	ND	ug/kg	440	76.0	1	08/30/16 11:45	09/14/16 14:33	105-60-2	
Carbazole	ND	ug/kg	440	84.0	1	08/30/16 11:45	09/14/16 14:33	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	880	90.6	1	08/30/16 11:45	09/14/16 14:33	59-50-7	
4-Chloroaniline	ND	ug/kg	2200	123	1	08/30/16 11:45	09/14/16 14:33	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	440	103	1	08/30/16 11:45	09/14/16 14:33	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	440	112	1	08/30/16 11:45	09/14/16 14:33	111-44-4	
2-Chloronaphthalene	ND	ug/kg	440	86.6	1	08/30/16 11:45	09/14/16 14:33	91-58-7	
2-Chlorophenol	ND	ug/kg	440	120	1	08/30/16 11:45	09/14/16 14:33	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	440	90.6	1	08/30/16 11:45	09/14/16 14:33	7005-72-3	
Chrysene	ND	ug/kg	440	58.6	1	08/30/16 11:45	09/14/16 14:33	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	440	93.3	1	08/30/16 11:45	09/14/16 14:33	53-70-3	
Dibenzofuran	ND	ug/kg	440	72.0	1	08/30/16 11:45	09/14/16 14:33	132-64-9	
3,3'-Dichlorobenzidine	ND	ug/kg	2200	96.0	1	08/30/16 11:45	09/14/16 14:33	91-94-1	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-5 **Lab ID: 92310272005** Collected: 08/25/16 12:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
2,4-Dichlorophenol	ND	ug/kg	440	96.0	1	08/30/16 11:45	09/14/16 14:33	120-83-2	
Diethylphthalate	ND	ug/kg	440	68.0	1	08/30/16 11:45	09/14/16 14:33	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	440	173	1	08/30/16 11:45	09/14/16 14:33	105-67-9	
Dimethylphthalate	ND	ug/kg	440	89.3	1	08/30/16 11:45	09/14/16 14:33	131-11-3	
Di-n-butylphthalate	ND	ug/kg	440	72.0	1	08/30/16 11:45	09/14/16 14:33	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	880	88.0	1	08/30/16 11:45	09/14/16 14:33	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	2200	72.0	1	08/30/16 11:45	09/14/16 14:33	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	440	82.6	1	08/30/16 11:45	09/14/16 14:33	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	440	92.0	1	08/30/16 11:45	09/14/16 14:33	606-20-2	
Di-n-octylphthalate	ND	ug/kg	440	92.0	1	08/30/16 11:45	09/14/16 14:33	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	440	120	1	08/30/16 11:45	09/14/16 14:33	117-81-7	
Fluoranthene	ND	ug/kg	440	64.0	1	08/30/16 11:45	09/14/16 14:33	206-44-0	
Fluorene	ND	ug/kg	440	90.6	1	08/30/16 11:45	09/14/16 14:33	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	440	76.0	1	08/30/16 11:45	09/14/16 14:33	87-68-3	
Hexachlorobenzene	ND	ug/kg	440	56.0	1	08/30/16 11:45	09/14/16 14:33	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	440	81.3	1	08/30/16 11:45	09/14/16 14:33	77-47-4	
Hexachloroethane	ND	ug/kg	440	116	1	08/30/16 11:45	09/14/16 14:33	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	440	90.6	1	08/30/16 11:45	09/14/16 14:33	193-39-5	
Isophorone	ND	ug/kg	440	98.6	1	08/30/16 11:45	09/14/16 14:33	78-59-1	
2-Methylnaphthalene	ND	ug/kg	440	94.6	1	08/30/16 11:45	09/14/16 14:33	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	440	133	1	08/30/16 11:45	09/14/16 14:33	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	440	173	1	08/30/16 11:45	09/14/16 14:33		
Naphthalene	ND	ug/kg	440	108	1	08/30/16 11:45	09/14/16 14:33	91-20-3	
2-Nitroaniline	ND	ug/kg	2200	136	1	08/30/16 11:45	09/14/16 14:33	88-74-4	
3-Nitroaniline	ND	ug/kg	2200	120	1	08/30/16 11:45	09/14/16 14:33	99-09-2	
4-Nitroaniline	ND	ug/kg	880	124	1	08/30/16 11:45	09/14/16 14:33	100-01-6	
Nitrobenzene	ND	ug/kg	440	120	1	08/30/16 11:45	09/14/16 14:33	98-95-3	
2-Nitrophenol	ND	ug/kg	440	107	1	08/30/16 11:45	09/14/16 14:33	88-75-5	
4-Nitrophenol	ND	ug/kg	2200	78.6	1	08/30/16 11:45	09/14/16 14:33	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	440	84.0	1	08/30/16 11:45	09/14/16 14:33	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	440	131	1	08/30/16 11:45	09/14/16 14:33	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/kg	440	117	1	08/30/16 11:45	09/14/16 14:33	108-60-1	
Pentachlorophenol	ND	ug/kg	2200	80.0	1	08/30/16 11:45	09/14/16 14:33	87-86-5	
Phenanthrene	ND	ug/kg	440	73.3	1	08/30/16 11:45	09/14/16 14:33	85-01-8	
Phenol	ND	ug/kg	440	132	1	08/30/16 11:45	09/14/16 14:33		
Pyrene	ND	ug/kg	440	74.6	1	08/30/16 11:45	09/14/16 14:33	129-00-0	
1,2,4,5-Tetrachlorobenzene	ND	ug/kg	440	160	1	08/30/16 11:45	09/14/16 14:33	95-94-3	
2,3,4,6-Tetrachlorophenol	ND	ug/kg	440	173	1	08/30/16 11:45	09/14/16 14:33	58-90-2	
2,4,5-Trichlorophenol	ND	ug/kg	440	136	1	08/30/16 11:45	09/14/16 14:33	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	440	97.3	1	08/30/16 11:45	09/14/16 14:33	88-06-2	
Surrogates									
2-Fluorobiphenyl (S)	39	%	30-110		1	08/30/16 11:45	09/14/16 14:33	321-60-8	
Terphenyl-d14 (S)	18	%	28-110		1	08/30/16 11:45	09/14/16 14:33	1718-51-0	S0
Phenol-d6 (S)	60	%	22-110		1	08/30/16 11:45	09/14/16 14:33	13127-88-3	
2-Fluorophenol (S)	55	%	13-110		1	08/30/16 11:45	09/14/16 14:33	367-12-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-5 **Lab ID: 92310272005** Collected: 08/25/16 12:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Surrogates									
2,4,6-Tribromophenol (S)	58	%	27-110		1	08/30/16 11:45	09/14/16 14:33	118-79-6	
Nitrobenzene-d5 (S)	53	%	23-110		1	08/30/16 11:45	09/14/16 14:33	4165-60-0	
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	11.3	11.3	1		08/26/16 12:38	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	117	%	50-150		1		08/26/16 12:38	17060-07-0	
Toluene-d8 (S)	120	%	50-150		1		08/26/16 12:38	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**54.0J**	ug/kg	125	12.5	1		08/26/16 17:46	67-64-1	
Benzene	ND	ug/kg	6.3	2.0	1		08/26/16 17:46	71-43-2	
Bromochloromethane	ND	ug/kg	6.3	2.1	1		08/26/16 17:46	74-97-5	
Bromodichloromethane	ND	ug/kg	6.3	2.4	1		08/26/16 17:46	75-27-4	
Bromoform	ND	ug/kg	6.3	2.9	1		08/26/16 17:46	75-25-2	
Bromomethane	ND	ug/kg	12.5	3.1	1		08/26/16 17:46	74-83-9	
2-Butanone (MEK)	ND	ug/kg	125	3.6	1		08/26/16 17:46	78-93-3	
Carbon disulfide	ND	ug/kg	12.5	3.8	1		08/26/16 17:46	75-15-0	
Carbon tetrachloride	ND	ug/kg	6.3	3.3	1		08/26/16 17:46	56-23-5	
Chlorobenzene	ND	ug/kg	6.3	2.4	1		08/26/16 17:46	108-90-7	
Chloroethane	ND	ug/kg	12.5	3.0	1		08/26/16 17:46	75-00-3	
Chloroform	ND	ug/kg	6.3	2.0	1		08/26/16 17:46	67-66-3	
Chloromethane	ND	ug/kg	12.5	3.0	1		08/26/16 17:46	74-87-3	
Cyclohexane	ND	ug/kg	6.3	2.0	1		08/26/16 17:46	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.3	4.5	1		08/26/16 17:46	96-12-8	
Dibromochloromethane	ND	ug/kg	6.3	2.3	1		08/26/16 17:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.3	2.3	1		08/26/16 17:46	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	6.3	2.4	1		08/26/16 17:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.3	2.5	1		08/26/16 17:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.3	2.1	1		08/26/16 17:46	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.5	4.5	1		08/26/16 17:46	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.3	1.9	1		08/26/16 17:46	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.3	2.8	1		08/26/16 17:46	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.3	2.3	1		08/26/16 17:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.3	1.8	1		08/26/16 17:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.3	2.4	1		08/26/16 17:46	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.3	2.1	1		08/26/16 17:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	6.3	2.3	1		08/26/16 17:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.3	1.9	1		08/26/16 17:46	10061-02-6	
Ethylbenzene	ND	ug/kg	6.3	2.3	1		08/26/16 17:46	100-41-4	
2-Hexanone	ND	ug/kg	62.5	4.9	1		08/26/16 17:46	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.3	2.4	1		08/26/16 17:46	98-82-8	
Methyl acetate	ND	ug/kg	12.5	1.8	1		08/26/16 17:46	79-20-9	
Methylcyclohexane	ND	ug/kg	12.5	1.9	1		08/26/16 17:46	108-87-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-5 **Lab ID: 92310272005** Collected: 08/25/16 12:45 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Methylene Chloride	**24.0J**	ug/kg	25.0	3.8	1		08/26/16 17:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	62.5	4.6	1		08/26/16 17:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.3	1.9	1		08/26/16 17:46	1634-04-4	
Styrene	ND	ug/kg	6.3	2.3	1		08/26/16 17:46	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.3	2.4	1		08/26/16 17:46	79-34-5	
Tetrachloroethene	ND	ug/kg	6.3	2.1	1		08/26/16 17:46	127-18-4	
Toluene	ND	ug/kg	6.3	2.3	1		08/26/16 17:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.3	2.8	1		08/26/16 17:46	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.3	2.0	1		08/26/16 17:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.3	2.3	1		08/26/16 17:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.3	2.6	1		08/26/16 17:46	79-00-5	
Trichloroethene	ND	ug/kg	6.3	2.6	1		08/26/16 17:46	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.3	2.8	1		08/26/16 17:46	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6.3	2.4	1		08/26/16 17:46	76-13-1	
Vinyl chloride	ND	ug/kg	12.5	2.3	1		08/26/16 17:46	75-01-4	
m&p-Xylene	ND	ug/kg	12.5	4.5	1		08/26/16 17:46	179601-23-1	
o-Xylene	ND	ug/kg	6.3	2.4	1		08/26/16 17:46	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		08/26/16 17:46	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		08/26/16 17:46	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		08/26/16 17:46	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**25.0**	%	0.10	0.10	1		08/29/16 06:42		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196 Preparation Method: EPA 7196 Modified								
Chromium, Hexavalent	ND	mg/kg	6.7	6.7	1	09/01/16 13:10	09/01/16 17:52	18540-29-9	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-6 **Lab ID: 92310272006** Collected: 08/25/16 13:00 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Antimony	ND	mg/kg	0.31	0.24	1	08/29/16 21:30	08/30/16 15:44	7440-36-0	
Arsenic	**0.74**	mg/kg	0.63	0.31	1	08/29/16 21:30	08/30/16 15:44	7440-38-2	
Beryllium	**0.25**	mg/kg	0.063	0.031	1	08/29/16 21:30	08/30/16 15:44	7440-41-7	
Cadmium	ND	mg/kg	0.063	0.031	1	08/29/16 21:30	08/30/16 15:44	7440-43-9	
Chromium	**2.8**	mg/kg	0.31	0.16	1	08/29/16 21:30	08/30/16 15:44	7440-47-3	
Copper	**4.3**	mg/kg	0.31	0.16	1	08/29/16 21:30	08/30/16 15:44	7440-50-8	
Lead	**7.1**	mg/kg	0.31	0.16	1	08/29/16 21:30	08/30/16 15:44	7439-92-1	
Manganese	**48.4**	mg/kg	0.31	0.16	1	08/29/16 21:30	08/30/16 15:44	7439-96-5	
Nickel	**1.1**	mg/kg	0.31	0.16	1	08/29/16 21:30	08/30/16 15:44	7440-02-0	
Selenium	ND	mg/kg	0.63	0.31	1	08/29/16 21:30	08/30/16 15:44	7782-49-2	
Silver	ND	mg/kg	0.31	0.16	1	08/29/16 21:30	08/30/16 15:44	7440-22-4	
Thallium	ND	mg/kg	0.63	0.31	1	08/29/16 21:30	08/30/16 15:44	7440-28-0	
Zinc	**23.5**	mg/kg	0.63	0.31	1	08/29/16 21:30	08/30/16 15:44	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.0024J**	mg/kg	0.0039	0.000078	1	08/30/16 23:55	09/01/16 06:55	7439-97-6	
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	405	93.3	1	08/30/16 11:45	09/14/16 15:02	83-32-9	
Acenaphthylene	ND	ug/kg	405	95.8	1	08/30/16 11:45	09/14/16 15:02	208-96-8	
Acetophenone	ND	ug/kg	405	209	1	08/30/16 11:45	09/14/16 15:02	98-86-2	
Anthracene	ND	ug/kg	405	90.9	1	08/30/16 11:45	09/14/16 15:02	120-12-7	
Atrazine	ND	ug/kg	810	160	1	08/30/16 11:45	09/14/16 15:02	1912-24-9	
Benzaldehyde	ND	ug/kg	810	405	1	08/30/16 11:45	09/14/16 15:02	100-52-7	
Benzo(a)anthracene	ND	ug/kg	405	74.9	1	08/30/16 11:45	09/14/16 15:02	56-55-3	
Benzo(a)pyrene	ND	ug/kg	405	77.4	1	08/30/16 11:45	09/14/16 15:02	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	405	70.0	1	08/30/16 11:45	09/14/16 15:02	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	405	103	1	08/30/16 11:45	09/14/16 15:02	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	405	79.8	1	08/30/16 11:45	09/14/16 15:02	207-08-9	
Biphenyl (Diphenyl)	ND	ug/kg	405	128	1	08/30/16 11:45	09/14/16 15:02	92-52-4	
4-Bromophenylphenyl ether	ND	ug/kg	405	73.7	1	08/30/16 11:45	09/14/16 15:02	101-55-3	
Butylbenzylphthalate	ND	ug/kg	405	86.0	1	08/30/16 11:45	09/14/16 15:02	85-68-7	
Caprolactam	ND	ug/kg	405	70.0	1	08/30/16 11:45	09/14/16 15:02	105-60-2	
Carbazole	ND	ug/kg	405	77.4	1	08/30/16 11:45	09/14/16 15:02	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	810	83.5	1	08/30/16 11:45	09/14/16 15:02	59-50-7	
4-Chloroaniline	ND	ug/kg	2030	113	1	08/30/16 11:45	09/14/16 15:02	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	405	94.5	1	08/30/16 11:45	09/14/16 15:02	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	405	103	1	08/30/16 11:45	09/14/16 15:02	111-44-4	
2-Chloronaphthalene	ND	ug/kg	405	79.8	1	08/30/16 11:45	09/14/16 15:02	91-58-7	
2-Chlorophenol	ND	ug/kg	405	111	1	08/30/16 11:45	09/14/16 15:02	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	405	83.5	1	08/30/16 11:45	09/14/16 15:02	7005-72-3	
Chrysene	ND	ug/kg	405	54.0	1	08/30/16 11:45	09/14/16 15:02	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	405	86.0	1	08/30/16 11:45	09/14/16 15:02	53-70-3	
Dibenzofuran	ND	ug/kg	405	66.3	1	08/30/16 11:45	09/14/16 15:02	132-64-9	
3,3'-Dichlorobenzidine	ND	ug/kg	2030	88.4	1	08/30/16 11:45	09/14/16 15:02	91-94-1	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-6 **Lab ID: 92310272006** Collected: 08/25/16 13:00 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
2,4-Dichlorophenol	ND	ug/kg	405	88.4	1	08/30/16 11:45	09/14/16 15:02	120-83-2	
Diethylphthalate	ND	ug/kg	405	62.6	1	08/30/16 11:45	09/14/16 15:02	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	405	160	1	08/30/16 11:45	09/14/16 15:02	105-67-9	
Dimethylphthalate	ND	ug/kg	405	82.3	1	08/30/16 11:45	09/14/16 15:02	131-11-3	
Di-n-butylphthalate	ND	ug/kg	405	66.3	1	08/30/16 11:45	09/14/16 15:02	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	810	81.0	1	08/30/16 11:45	09/14/16 15:02	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	2030	66.3	1	08/30/16 11:45	09/14/16 15:02	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	405	76.1	1	08/30/16 11:45	09/14/16 15:02	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	405	84.7	1	08/30/16 11:45	09/14/16 15:02	606-20-2	
Di-n-octylphthalate	ND	ug/kg	405	84.7	1	08/30/16 11:45	09/14/16 15:02	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	405	111	1	08/30/16 11:45	09/14/16 15:02	117-81-7	
Fluoranthene	ND	ug/kg	405	58.9	1	08/30/16 11:45	09/14/16 15:02	206-44-0	
Fluorene	ND	ug/kg	405	83.5	1	08/30/16 11:45	09/14/16 15:02	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	405	70.0	1	08/30/16 11:45	09/14/16 15:02	87-68-3	
Hexachlorobenzene	ND	ug/kg	405	51.6	1	08/30/16 11:45	09/14/16 15:02	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	405	74.9	1	08/30/16 11:45	09/14/16 15:02	77-47-4	
Hexachloroethane	ND	ug/kg	405	107	1	08/30/16 11:45	09/14/16 15:02	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	405	83.5	1	08/30/16 11:45	09/14/16 15:02	193-39-5	
Isophorone	ND	ug/kg	405	90.9	1	08/30/16 11:45	09/14/16 15:02	78-59-1	
2-Methylnaphthalene	ND	ug/kg	405	87.2	1	08/30/16 11:45	09/14/16 15:02	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	405	123	1	08/30/16 11:45	09/14/16 15:02	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	405	160	1	08/30/16 11:45	09/14/16 15:02		
Naphthalene	ND	ug/kg	405	99.5	1	08/30/16 11:45	09/14/16 15:02	91-20-3	
2-Nitroaniline	ND	ug/kg	2030	125	1	08/30/16 11:45	09/14/16 15:02	88-74-4	
3-Nitroaniline	ND	ug/kg	2030	111	1	08/30/16 11:45	09/14/16 15:02	99-09-2	
4-Nitroaniline	ND	ug/kg	810	114	1	08/30/16 11:45	09/14/16 15:02	100-01-6	
Nitrobenzene	ND	ug/kg	405	111	1	08/30/16 11:45	09/14/16 15:02	98-95-3	
2-Nitrophenol	ND	ug/kg	405	98.2	1	08/30/16 11:45	09/14/16 15:02	88-75-5	
4-Nitrophenol	ND	ug/kg	2030	72.4	1	08/30/16 11:45	09/14/16 15:02	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	405	77.4	1	08/30/16 11:45	09/14/16 15:02	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	405	120	1	08/30/16 11:45	09/14/16 15:02	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/kg	405	108	1	08/30/16 11:45	09/14/16 15:02	108-60-1	
Pentachlorophenol	ND	ug/kg	2030	73.7	1	08/30/16 11:45	09/14/16 15:02	87-86-5	
Phenanthrene	ND	ug/kg	405	67.5	1	08/30/16 11:45	09/14/16 15:02	85-01-8	
Phenol	ND	ug/kg	405	122	1	08/30/16 11:45	09/14/16 15:02		
Pyrene	ND	ug/kg	405	68.8	1	08/30/16 11:45	09/14/16 15:02	129-00-0	
1,2,4,5-Tetrachlorobenzene	ND	ug/kg	405	147	1	08/30/16 11:45	09/14/16 15:02	95-94-3	
2,3,4,6-Tetrachlorophenol	ND	ug/kg	405	160	1	08/30/16 11:45	09/14/16 15:02	58-90-2	
2,4,5-Trichlorophenol	ND	ug/kg	405	125	1	08/30/16 11:45	09/14/16 15:02	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	405	89.6	1	08/30/16 11:45	09/14/16 15:02	88-06-2	
Surrogates									
2-Fluorobiphenyl (S)	70	%	30-110		1	08/30/16 11:45	09/14/16 15:02	321-60-8	
Terphenyl-d14 (S)	64	%	28-110		1	08/30/16 11:45	09/14/16 15:02	1718-51-0	
Phenol-d6 (S)	80	%	22-110		1	08/30/16 11:45	09/14/16 15:02	13127-88-3	
2-Fluorophenol (S)	72	%	13-110		1	08/30/16 11:45	09/14/16 15:02	367-12-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-6 **Lab ID: 92310272006** Collected: 08/25/16 13:00 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Surrogates									
2,4,6-Tribromophenol (S)	93	%	27-110		1	08/30/16 11:45	09/14/16 15:02	118-79-6	
Nitrobenzene-d5 (S)	73	%	23-110		1	08/30/16 11:45	09/14/16 15:02	4165-60-0	
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	10.8	10.8	1		08/26/16 12:57	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	113	%	50-150		1		08/26/16 12:57	17060-07-0	
Toluene-d8 (S)	116	%	50-150		1		08/26/16 12:57	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**13.6J**	ug/kg	130	13.0	1		08/26/16 18:06	67-64-1	
Benzene	ND	ug/kg	6.5	2.1	1		08/26/16 18:06	71-43-2	
Bromochloromethane	ND	ug/kg	6.5	2.2	1		08/26/16 18:06	74-97-5	
Bromodichloromethane	ND	ug/kg	6.5	2.5	1		08/26/16 18:06	75-27-4	
Bromoform	ND	ug/kg	6.5	3.0	1		08/26/16 18:06	75-25-2	
Bromomethane	ND	ug/kg	13.0	3.3	1		08/26/16 18:06	74-83-9	
2-Butanone (MEK)	ND	ug/kg	130	3.8	1		08/26/16 18:06	78-93-3	
Carbon disulfide	ND	ug/kg	13.0	3.9	1		08/26/16 18:06	75-15-0	
Carbon tetrachloride	ND	ug/kg	6.5	3.4	1		08/26/16 18:06	56-23-5	
Chlorobenzene	ND	ug/kg	6.5	2.5	1		08/26/16 18:06	108-90-7	
Chloroethane	ND	ug/kg	13.0	3.1	1		08/26/16 18:06	75-00-3	
Chloroform	ND	ug/kg	6.5	2.1	1		08/26/16 18:06	67-66-3	
Chloromethane	ND	ug/kg	13.0	3.1	1		08/26/16 18:06	74-87-3	
Cyclohexane	ND	ug/kg	6.5	2.1	1		08/26/16 18:06	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.5	4.7	1		08/26/16 18:06	96-12-8	
Dibromochloromethane	ND	ug/kg	6.5	2.3	1		08/26/16 18:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.5	2.3	1		08/26/16 18:06	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	6.5	2.5	1		08/26/16 18:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.5	2.6	1		08/26/16 18:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.5	2.2	1		08/26/16 18:06	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.0	4.7	1		08/26/16 18:06	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.5	2.0	1		08/26/16 18:06	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.5	2.9	1		08/26/16 18:06	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.5	2.3	1		08/26/16 18:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.5	1.8	1		08/26/16 18:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.5	2.5	1		08/26/16 18:06	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		08/26/16 18:06	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	6.5	2.3	1		08/26/16 18:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.5	2.0	1		08/26/16 18:06	10061-02-6	
Ethylbenzene	ND	ug/kg	6.5	2.3	1		08/26/16 18:06	100-41-4	
2-Hexanone	ND	ug/kg	65.2	5.1	1		08/26/16 18:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.5	2.5	1		08/26/16 18:06	98-82-8	
Methyl acetate	ND	ug/kg	13.0	1.8	1		08/26/16 18:06	79-20-9	
Methylcyclohexane	ND	ug/kg	13.0	2.0	1		08/26/16 18:06	108-87-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-6 **Lab ID: 92310272006** Collected: 08/25/16 13:00 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Methylene Chloride	**18.0J**	ug/kg	26.1	3.9	1		08/26/16 18:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	65.2	4.8	1		08/26/16 18:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.5	2.0	1		08/26/16 18:06	1634-04-4	
Styrene	ND	ug/kg	6.5	2.3	1		08/26/16 18:06	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.5	2.5	1		08/26/16 18:06	79-34-5	
Tetrachloroethene	ND	ug/kg	6.5	2.2	1		08/26/16 18:06	127-18-4	
Toluene	ND	ug/kg	6.5	2.3	1		08/26/16 18:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.5	2.9	1		08/26/16 18:06	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.5	2.1	1		08/26/16 18:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.5	2.3	1		08/26/16 18:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.5	2.7	1		08/26/16 18:06	79-00-5	
Trichloroethene	ND	ug/kg	6.5	2.7	1		08/26/16 18:06	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.5	2.9	1		08/26/16 18:06	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6.5	2.5	1		08/26/16 18:06	76-13-1	
Vinyl chloride	ND	ug/kg	13.0	2.3	1		08/26/16 18:06	75-01-4	
m&p-Xylene	ND	ug/kg	13.0	4.7	1		08/26/16 18:06	179601-23-1	
o-Xylene	ND	ug/kg	6.5	2.5	1		08/26/16 18:06	95-47-6	
Surrogates									
Toluene-d8 (S)	104	%	70-130		1		08/26/16 18:06	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		08/26/16 18:06	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		08/26/16 18:06	17060-07-0	
Tentatively Identified Compounds									
Unknown	**0.34**	ug/kg			1		08/26/16 18:06		N
Unknown	**0.26**	ug/kg			1		08/26/16 18:06		N
Unknown Alkane	**0.63**	ug/kg			1		08/26/16 18:06		N
Unknown	**0.80**	ug/kg			1		08/26/16 18:06		N
Unknown	**0.33**	ug/kg			1		08/26/16 18:06		N
Unknown	**0.29**	ug/kg			1		08/26/16 18:06		N
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.6**	%	0.10	0.10	1		08/29/16 06:42		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196 Preparation Method: EPA 7196 Modified								
Chromium, Hexavalent	ND	mg/kg	6.7	6.7	1	09/01/16 13:10	09/01/16 17:52	18540-29-9	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-3-Dup **Lab ID: 92310272007** Collected: 08/25/16 10:20 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Antimony	ND	mg/kg	0.34	0.26	1	08/29/16 21:30	08/30/16 15:47	7440-36-0	
Arsenic	**0.58J**	mg/kg	0.67	0.34	1	08/29/16 21:30	08/30/16 15:47	7440-38-2	
Beryllium	**0.10**	mg/kg	0.067	0.034	1	08/29/16 21:30	08/30/16 15:47	7440-41-7	
Cadmium	ND	mg/kg	0.067	0.034	1	08/29/16 21:30	08/30/16 15:47	7440-43-9	
Chromium	**1.2**	mg/kg	0.34	0.17	1	08/29/16 21:30	08/30/16 15:47	7440-47-3	
Copper	**2.5**	mg/kg	0.34	0.17	1	08/29/16 21:30	08/30/16 15:47	7440-50-8	
Lead	**5.9**	mg/kg	0.34	0.17	1	08/29/16 21:30	08/30/16 15:47	7439-92-1	
Manganese	**35.8**	mg/kg	0.34	0.17	1	08/29/16 21:30	08/30/16 15:47	7439-96-5	
Nickel	**0.60**	mg/kg	0.34	0.17	1	08/29/16 21:30	08/30/16 15:47	7440-02-0	
Selenium	ND	mg/kg	0.67	0.34	1	08/29/16 21:30	08/30/16 15:47	7782-49-2	
Silver	ND	mg/kg	0.34	0.17	1	08/29/16 21:30	08/30/16 15:47	7440-22-4	
Thallium	ND	mg/kg	0.67	0.34	1	08/29/16 21:30	08/30/16 15:47	7440-28-0	
Zinc	**10.8**	mg/kg	0.67	0.34	1	08/29/16 21:30	08/30/16 15:47	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.0030**	mg/kg	0.0026	0.000053	1	08/30/16 23:55	09/01/16 06:58	7439-97-6	
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	430	98.9	1	08/30/16 11:45	09/14/16 15:30	83-32-9	
Acenaphthylene	ND	ug/kg	430	102	1	08/30/16 11:45	09/14/16 15:30	208-96-8	
Acetophenone	ND	ug/kg	430	221	1	08/30/16 11:45	09/14/16 15:30	98-86-2	
Anthracene	ND	ug/kg	430	96.3	1	08/30/16 11:45	09/14/16 15:30	120-12-7	
Atrazine	ND	ug/kg	859	169	1	08/30/16 11:45	09/14/16 15:30	1912-24-9	
Benzaldehyde	ND	ug/kg	859	430	1	08/30/16 11:45	09/14/16 15:30	100-52-7	
Benzo(a)anthracene	ND	ug/kg	430	79.4	1	08/30/16 11:45	09/14/16 15:30	56-55-3	
Benzo(a)pyrene	ND	ug/kg	430	82.0	1	08/30/16 11:45	09/14/16 15:30	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	430	74.2	1	08/30/16 11:45	09/14/16 15:30	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	430	109	1	08/30/16 11:45	09/14/16 15:30	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	430	84.6	1	08/30/16 11:45	09/14/16 15:30	207-08-9	
Biphenyl (Diphenyl)	ND	ug/kg	430	135	1	08/30/16 11:45	09/14/16 15:30	92-52-4	
4-Bromophenylphenyl ether	ND	ug/kg	430	78.1	1	08/30/16 11:45	09/14/16 15:30	101-55-3	
Butylbenzylphthalate	ND	ug/kg	430	91.1	1	08/30/16 11:45	09/14/16 15:30	85-68-7	
Caprolactam	ND	ug/kg	430	74.2	1	08/30/16 11:45	09/14/16 15:30	105-60-2	
Carbazole	ND	ug/kg	430	82.0	1	08/30/16 11:45	09/14/16 15:30	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	859	88.5	1	08/30/16 11:45	09/14/16 15:30	59-50-7	
4-Chloroaniline	ND	ug/kg	2150	120	1	08/30/16 11:45	09/14/16 15:30	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	430	100	1	08/30/16 11:45	09/14/16 15:30	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	430	109	1	08/30/16 11:45	09/14/16 15:30	111-44-4	
2-Chloronaphthalene	ND	ug/kg	430	84.6	1	08/30/16 11:45	09/14/16 15:30	91-58-7	
2-Chlorophenol	ND	ug/kg	430	117	1	08/30/16 11:45	09/14/16 15:30	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	430	88.5	1	08/30/16 11:45	09/14/16 15:30	7005-72-3	
Chrysene	ND	ug/kg	430	57.3	1	08/30/16 11:45	09/14/16 15:30	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	430	91.1	1	08/30/16 11:45	09/14/16 15:30	53-70-3	
Dibenzofuran	ND	ug/kg	430	70.3	1	08/30/16 11:45	09/14/16 15:30	132-64-9	
3,3'-Dichlorobenzidine	ND	ug/kg	2150	93.7	1	08/30/16 11:45	09/14/16 15:30	91-94-1	

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-3-Dup **Lab ID: 92310272007** Collected: 08/25/16 10:20 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
2,4-Dichlorophenol	ND	ug/kg	430	93.7	1	08/30/16 11:45	09/14/16 15:30	120-83-2	
Diethylphthalate	ND	ug/kg	430	66.4	1	08/30/16 11:45	09/14/16 15:30	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	430	169	1	08/30/16 11:45	09/14/16 15:30	105-67-9	
Dimethylphthalate	ND	ug/kg	430	87.2	1	08/30/16 11:45	09/14/16 15:30	131-11-3	
Di-n-butylphthalate	ND	ug/kg	430	70.3	1	08/30/16 11:45	09/14/16 15:30	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	859	85.9	1	08/30/16 11:45	09/14/16 15:30	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	2150	70.3	1	08/30/16 11:45	09/14/16 15:30	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	430	80.7	1	08/30/16 11:45	09/14/16 15:30	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	430	89.8	1	08/30/16 11:45	09/14/16 15:30	606-20-2	
Di-n-octylphthalate	ND	ug/kg	430	89.8	1	08/30/16 11:45	09/14/16 15:30	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	430	117	1	08/30/16 11:45	09/14/16 15:30	117-81-7	
Fluoranthene	ND	ug/kg	430	62.5	1	08/30/16 11:45	09/14/16 15:30	206-44-0	
Fluorene	ND	ug/kg	430	88.5	1	08/30/16 11:45	09/14/16 15:30	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	430	74.2	1	08/30/16 11:45	09/14/16 15:30	87-68-3	
Hexachlorobenzene	ND	ug/kg	430	54.7	1	08/30/16 11:45	09/14/16 15:30	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	430	79.4	1	08/30/16 11:45	09/14/16 15:30	77-47-4	
Hexachloroethane	ND	ug/kg	430	113	1	08/30/16 11:45	09/14/16 15:30	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	430	88.5	1	08/30/16 11:45	09/14/16 15:30	193-39-5	
Isophorone	ND	ug/kg	430	96.3	1	08/30/16 11:45	09/14/16 15:30	78-59-1	
2-Methylnaphthalene	ND	ug/kg	430	92.4	1	08/30/16 11:45	09/14/16 15:30	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	430	130	1	08/30/16 11:45	09/14/16 15:30	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	430	169	1	08/30/16 11:45	09/14/16 15:30		
Naphthalene	ND	ug/kg	430	105	1	08/30/16 11:45	09/14/16 15:30	91-20-3	
2-Nitroaniline	ND	ug/kg	2150	133	1	08/30/16 11:45	09/14/16 15:30	88-74-4	
3-Nitroaniline	ND	ug/kg	2150	117	1	08/30/16 11:45	09/14/16 15:30	99-09-2	
4-Nitroaniline	ND	ug/kg	859	121	1	08/30/16 11:45	09/14/16 15:30	100-01-6	
Nitrobenzene	ND	ug/kg	430	117	1	08/30/16 11:45	09/14/16 15:30	98-95-3	
2-Nitrophenol	ND	ug/kg	430	104	1	08/30/16 11:45	09/14/16 15:30	88-75-5	
4-Nitrophenol	ND	ug/kg	2150	76.8	1	08/30/16 11:45	09/14/16 15:30	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	430	82.0	1	08/30/16 11:45	09/14/16 15:30	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	430	128	1	08/30/16 11:45	09/14/16 15:30	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/kg	430	115	1	08/30/16 11:45	09/14/16 15:30	108-60-1	
Pentachlorophenol	ND	ug/kg	2150	78.1	1	08/30/16 11:45	09/14/16 15:30	87-86-5	
Phenanthrene	ND	ug/kg	430	71.6	1	08/30/16 11:45	09/14/16 15:30	85-01-8	
Phenol	ND	ug/kg	430	129	1	08/30/16 11:45	09/14/16 15:30		
Pyrene	ND	ug/kg	430	72.9	1	08/30/16 11:45	09/14/16 15:30	129-00-0	
1,2,4,5-Tetrachlorobenzene	ND	ug/kg	430	156	1	08/30/16 11:45	09/14/16 15:30	95-94-3	
2,3,4,6-Tetrachlorophenol	ND	ug/kg	430	169	1	08/30/16 11:45	09/14/16 15:30	58-90-2	
2,4,5-Trichlorophenol	ND	ug/kg	430	133	1	08/30/16 11:45	09/14/16 15:30	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	430	95.0	1	08/30/16 11:45	09/14/16 15:30	88-06-2	
Surrogates									
2-Fluorobiphenyl (S)	69	%	30-110		1	08/30/16 11:45	09/14/16 15:30	321-60-8	
Terphenyl-d14 (S)	32	%	28-110		1	08/30/16 11:45	09/14/16 15:30	1718-51-0	
Phenol-d6 (S)	75	%	22-110		1	08/30/16 11:45	09/14/16 15:30	13127-88-3	
2-Fluorophenol (S)	73	%	13-110		1	08/30/16 11:45	09/14/16 15:30	367-12-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-3-Dup **Lab ID: 92310272007** Collected: 08/25/16 10:20 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Surrogates									
2,4,6-Tribromophenol (S)	81	%	27-110		1	08/30/16 11:45	09/14/16 15:30	118-79-6	
Nitrobenzene-d5 (S)	74	%	23-110		1	08/30/16 11:45	09/14/16 15:30	4165-60-0	
Tentatively Identified Compounds									
Unknown	**327**	ug/kg			1	08/30/16 11:45	09/14/16 15:30		N
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	10.6	10.6	1		08/26/16 13:16	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	120	%	50-150		1		08/26/16 13:16	17060-07-0	
Toluene-d8 (S)	124	%	50-150		1		08/26/16 13:16	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	124	12.4	1		08/26/16 18:26	67-64-1	
Benzene	ND	ug/kg	6.2	2.0	1		08/26/16 18:26	71-43-2	
Bromochloromethane	ND	ug/kg	6.2	2.1	1		08/26/16 18:26	74-97-5	
Bromodichloromethane	ND	ug/kg	6.2	2.4	1		08/26/16 18:26	75-27-4	
Bromoform	ND	ug/kg	6.2	2.8	1		08/26/16 18:26	75-25-2	
Bromomethane	ND	ug/kg	12.4	3.1	1		08/26/16 18:26	74-83-9	
2-Butanone (MEK)	ND	ug/kg	124	3.6	1		08/26/16 18:26	78-93-3	
Carbon disulfide	ND	ug/kg	12.4	3.7	1		08/26/16 18:26	75-15-0	
Carbon tetrachloride	ND	ug/kg	6.2	3.2	1		08/26/16 18:26	56-23-5	
Chlorobenzene	ND	ug/kg	6.2	2.4	1		08/26/16 18:26	108-90-7	
Chloroethane	ND	ug/kg	12.4	3.0	1		08/26/16 18:26	75-00-3	
Chloroform	ND	ug/kg	6.2	2.0	1		08/26/16 18:26	67-66-3	
Chloromethane	ND	ug/kg	12.4	3.0	1		08/26/16 18:26	74-87-3	
Cyclohexane	ND	ug/kg	6.2	2.0	1		08/26/16 18:26	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.2	4.5	1		08/26/16 18:26	96-12-8	
Dibromochloromethane	ND	ug/kg	6.2	2.2	1		08/26/16 18:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.2	2.2	1		08/26/16 18:26	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	6.2	2.4	1		08/26/16 18:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.2	2.5	1		08/26/16 18:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.2	2.1	1		08/26/16 18:26	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.4	4.5	1		08/26/16 18:26	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.2	1.9	1		08/26/16 18:26	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.2	2.7	1		08/26/16 18:26	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.2	2.2	1		08/26/16 18:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.2	1.7	1		08/26/16 18:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.2	2.4	1		08/26/16 18:26	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.2	2.1	1		08/26/16 18:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	6.2	2.2	1		08/26/16 18:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.2	1.9	1		08/26/16 18:26	10061-02-6	
Ethylbenzene	ND	ug/kg	6.2	2.2	1		08/26/16 18:26	100-41-4	
2-Hexanone	ND	ug/kg	61.9	4.8	1		08/26/16 18:26	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.2	2.4	1		08/26/16 18:26	98-82-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Sed-3-Dup **Lab ID: 92310272007** Collected: 08/25/16 10:20 Received: 08/25/16 17:26 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Methyl acetate	ND	ug/kg	12.4	1.7	1		08/26/16 18:26	79-20-9	
Methylcyclohexane	ND	ug/kg	12.4	1.9	1		08/26/16 18:26	108-87-2	
Methylene Chloride	ND	ug/kg	24.7	3.7	1		08/26/16 18:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	61.9	4.6	1		08/26/16 18:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.2	1.9	1		08/26/16 18:26	1634-04-4	
Styrene	ND	ug/kg	6.2	2.2	1		08/26/16 18:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.2	2.4	1		08/26/16 18:26	79-34-5	
Tetrachloroethene	ND	ug/kg	6.2	2.1	1		08/26/16 18:26	127-18-4	
Toluene	ND	ug/kg	6.2	2.2	1		08/26/16 18:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.2	2.7	1		08/26/16 18:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.2	2.0	1		08/26/16 18:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.2	2.2	1		08/26/16 18:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.2	2.6	1		08/26/16 18:26	79-00-5	
Trichloroethene	ND	ug/kg	6.2	2.6	1		08/26/16 18:26	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.2	2.7	1		08/26/16 18:26	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6.2	2.4	1		08/26/16 18:26	76-13-1	
Vinyl chloride	ND	ug/kg	12.4	2.2	1		08/26/16 18:26	75-01-4	
m&p-Xylene	ND	ug/kg	12.4	4.5	1		08/26/16 18:26	179601-23-1	
o-Xylene	ND	ug/kg	6.2	2.4	1		08/26/16 18:26	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		08/26/16 18:26	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		08/26/16 18:26	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		08/26/16 18:26	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**23.2**	%	0.10	0.10	1		08/29/16 06:42		
7196 Chromium, Hexavalent	Analytical Method: EPA 7196 Preparation Method: EPA 7196 Modified								
Chromium, Hexavalent	ND	mg/kg	5.9	5.9	1	09/01/16 13:10	09/01/16 17:52	18540-29-9	

REPORT OF LABORATORY ANALYSIS

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: EB-01-082516 **Lab ID: 92310272008** Collected: 08/25/16 12:15 Received: 08/25/16 17:26 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010A								
Antimony	ND	ug/L	5.0	3.9	1	08/26/16 19:30	08/27/16 23:11	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	08/26/16 19:30	08/27/16 23:11	7440-38-2	
Beryllium	ND	ug/L	1.0	0.50	1	08/26/16 19:30	08/27/16 23:11	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/26/16 19:30	08/27/16 23:11	7440-43-9	
Chromium	ND	ug/L	5.0	2.5	1	08/26/16 19:30	08/27/16 23:11	7440-47-3	
Copper	ND	ug/L	5.0	2.5	1	08/26/16 19:30	08/27/16 23:11	7440-50-8	
Lead	ND	ug/L	5.0	2.5	1	08/26/16 19:30	08/27/16 23:11	7439-92-1	
Manganese	ND	ug/L	5.0	2.5	1	08/26/16 19:30	08/27/16 23:11	7439-96-5	
Nickel	ND	ug/L	5.0	2.5	1	08/26/16 19:30	08/27/16 23:11	7440-02-0	
Selenium	ND	ug/L	10.0	5.0	1	08/26/16 19:30	08/27/16 23:11	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	08/26/16 19:30	08/27/16 23:11	7440-22-4	
Thallium	ND	ug/L	10.0	5.0	1	08/26/16 19:30	08/27/16 23:11	7440-28-0	
Zinc	**8.2J**	ug/L	10.0	5.0	1	08/26/16 19:30	08/27/16 23:11	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	08/30/16 02:50	09/01/16 11:07	7439-97-6	
8270 MSSV Semivolatile Organic	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Acenaphthene	ND	ug/L	10.0	0.25	1	08/26/16 09:00	08/26/16 14:10	83-32-9	
Acenaphthylene	ND	ug/L	10.0	0.21	1	08/26/16 09:00	08/26/16 14:10	208-96-8	
Acetophenone	ND	ug/L	10.0	2.0	1	08/26/16 09:00	08/26/16 14:10	98-86-2	
Anthracene	ND	ug/L	10.0	0.14	1	08/26/16 09:00	08/26/16 14:10	120-12-7	
Atrazine	ND	ug/L	20.0	1.7	1	08/26/16 09:00	08/26/16 14:10	1912-24-9	
Benzaldehyde	ND	ug/L	20.0	4.7	1	08/26/16 09:00	08/26/16 14:10	100-52-7	
Benzo(a)anthracene	ND	ug/L	10.0	0.33	1	08/26/16 09:00	08/26/16 14:10	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	0.30	1	08/26/16 09:00	08/26/16 14:10	50-32-8	
Benzo(b)fluoranthene	**1.0J**	ug/L	10.0	0.28	1	08/26/16 09:00	08/26/16 14:10	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	0.38	1	08/26/16 09:00	08/26/16 14:10	191-24-2	
Benzo(k)fluoranthene	**1.2J**	ug/L	10.0	0.43	1	08/26/16 09:00	08/26/16 14:10	207-08-9	
Biphenyl (Diphenyl)	ND	ug/L	10.0	1.9	1	08/26/16 09:00	08/26/16 14:10	92-52-4	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1.3	1	08/26/16 09:00	08/26/16 14:10	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	0.75	1	08/26/16 09:00	08/26/16 14:10	85-68-7	
Caprolactam	ND	ug/L	10.0	1.8	1	08/26/16 09:00	08/26/16 14:10	105-60-2	
Carbazole	ND	ug/L	10.0	0.73	1	08/26/16 09:00	08/26/16 14:10	86-74-8	
4-Chloro-3-methylphenol	ND	ug/L	20.0	4.2	1	08/26/16 09:00	08/26/16 14:10	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	3.4	1	08/26/16 09:00	08/26/16 14:10	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1.7	1	08/26/16 09:00	08/26/16 14:10	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1.5	1	08/26/16 09:00	08/26/16 14:10	111-44-4	
2-Chloronaphthalene	ND	ug/L	10.0	2.2	1	08/26/16 09:00	08/26/16 14:10	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1.5	1	08/26/16 09:00	08/26/16 14:10	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	2.1	1	08/26/16 09:00	08/26/16 14:10	7005-72-3	
Chrysene	**1.2J**	ug/L	10.0	0.21	1	08/26/16 09:00	08/26/16 14:10	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	0.55	1	08/26/16 09:00	08/26/16 14:10	53-70-3	
Dibenzofuran	ND	ug/L	10.0	1.8	1	08/26/16 09:00	08/26/16 14:10	132-64-9	
3,3'-Dichlorobenzidine	**1.6J**	ug/L	20.0	1.4	1	08/26/16 09:00	08/26/16 14:10	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1.7	1	08/26/16 09:00	08/26/16 14:10	120-83-2	

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: EB-01-082516 **Lab ID: 92310272008** Collected: 08/25/16 12:15 Received: 08/25/16 17:26 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatile Organic	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Diethylphthalate	ND	ug/L	10.0	1.3	1	08/26/16 09:00	08/26/16 14:10	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.0	2.2	1	08/26/16 09:00	08/26/16 14:10	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	1.5	1	08/26/16 09:00	08/26/16 14:10	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.0	1.1	1	08/26/16 09:00	08/26/16 14:10	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	1.7	1	08/26/16 09:00	08/26/16 14:10	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	6.5	1	08/26/16 09:00	08/26/16 14:10	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1.2	1	08/26/16 09:00	08/26/16 14:10	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1.7	1	08/26/16 09:00	08/26/16 14:10	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	0.86	1	08/26/16 09:00	08/26/16 14:10	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	0.85	1	08/26/16 09:00	08/26/16 14:10	117-81-7	
Fluoranthene	ND	ug/L	10.0	0.21	1	08/26/16 09:00	08/26/16 14:10	206-44-0	
Fluorene	ND	ug/L	10.0	0.21	1	08/26/16 09:00	08/26/16 14:10	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1.8	1	08/26/16 09:00	08/26/16 14:10	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	1.1	1	08/26/16 09:00	08/26/16 14:10	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	1.8	1	08/26/16 09:00	08/26/16 14:10	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1.5	1	08/26/16 09:00	08/26/16 14:10	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	0.29	1	08/26/16 09:00	08/26/16 14:10	193-39-5	
Isophorone	ND	ug/L	10.0	1.8	1	08/26/16 09:00	08/26/16 14:10	78-59-1	
2-Methylnaphthalene	ND	ug/L	10.0	0.28	1	08/26/16 09:00	08/26/16 14:10	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1.7	1	08/26/16 09:00	08/26/16 14:10	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1.7	1	08/26/16 09:00	08/26/16 14:10		
Naphthalene	ND	ug/L	10.0	0.34	1	08/26/16 09:00	08/26/16 14:10	91-20-3	
2-Nitroaniline	ND	ug/L	50.0	2.8	1	08/26/16 09:00	08/26/16 14:10	88-74-4	
3-Nitroaniline	ND	ug/L	50.0	2.4	1	08/26/16 09:00	08/26/16 14:10	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	2.5	1	08/26/16 09:00	08/26/16 14:10	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1.7	1	08/26/16 09:00	08/26/16 14:10	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1.7	1	08/26/16 09:00	08/26/16 14:10	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	5.8	1	08/26/16 09:00	08/26/16 14:10	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	2.1	1	08/26/16 09:00	08/26/16 14:10	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	1.3	1	08/26/16 09:00	08/26/16 14:10	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10.0	1.6	1	08/26/16 09:00	08/26/16 14:10	108-60-1	
Pentachlorophenol	ND	ug/L	25.0	2.3	1	08/26/16 09:00	08/26/16 14:10	87-86-5	
Phenanthrene	ND	ug/L	10.0	0.22	1	08/26/16 09:00	08/26/16 14:10	85-01-8	
Phenol	ND	ug/L	10.0	1.7	1	08/26/16 09:00	08/26/16 14:10		
Pyrene	ND	ug/L	10.0	0.19	1	08/26/16 09:00	08/26/16 14:10	129-00-0	
1,2,4,5-Tetrachlorobenzene	ND	ug/L	10.0	1.7	1	08/26/16 09:00	08/26/16 14:10	95-94-3	
2,3,4,6-Tetrachlorophenol	ND	ug/L	10.0	2.3	1	08/26/16 09:00	08/26/16 14:10	58-90-2	
2,4,5-Trichlorophenol	ND	ug/L	10.0	2.2	1	08/26/16 09:00	08/26/16 14:10	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1.9	1	08/26/16 09:00	08/26/16 14:10	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	73	%	21-110		1	08/26/16 09:00	08/26/16 14:10	4165-60-0	
2-Fluorobiphenyl (S)	80	%	27-110		1	08/26/16 09:00	08/26/16 14:10	321-60-8	
Terphenyl-d14 (S)	91	%	31-107		1	08/26/16 09:00	08/26/16 14:10	1718-51-0	
Phenol-d6 (S)	29	%	10-110		1	08/26/16 09:00	08/26/16 14:10	13127-88-3	
2-Fluorophenol (S)	44	%	12-110		1	08/26/16 09:00	08/26/16 14:10	367-12-4	
2,4,6-Tribromophenol (S)	89	%	27-110		1	08/26/16 09:00	08/26/16 14:10	118-79-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: EB-01-082516 **Lab ID: 92310272008** Collected: 08/25/16 12:15 Received: 08/25/16 17:26 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatile Organic	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Tentatively Identified Compounds									
Toluene	**5.5**	ug/L			1	08/26/16 09:00	08/26/16 14:10	108-88-3	N
Benzamide, N,N-diethyl-	**23.7**	ug/L			1	08/26/16 09:00	08/26/16 14:10	2728-05-4	N
7,9-Di-tert-butyl-1-oxa	**10.1**	ug/L			1	08/26/16 09:00	08/26/16 14:10	82304-66-3	N
3,5-di-tert-Butyl-4-hyd	**5.9**	ug/L			1	08/26/16 09:00	08/26/16 14:10	20170-32-5	N
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		08/28/16 18:07	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		08/28/16 18:07	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		08/28/16 18:07	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/28/16 18:07	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		08/28/16 18:07	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		08/28/16 18:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		08/28/16 18:07	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		08/28/16 18:07	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/28/16 18:07	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		08/28/16 18:07	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		08/28/16 18:07	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		08/28/16 18:07	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/28/16 18:07	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.36	1		08/28/16 18:07	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		08/28/16 18:07	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		08/28/16 18:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/28/16 18:07	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		08/28/16 18:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		08/28/16 18:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/28/16 18:07	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		08/28/16 18:07	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		08/28/16 18:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		08/28/16 18:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		08/28/16 18:07	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		08/28/16 18:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		08/28/16 18:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/28/16 18:07	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/28/16 18:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/28/16 18:07	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/28/16 18:07	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		08/28/16 18:07	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		08/28/16 18:07	99-87-6	
Methyl acetate	ND	ug/L	10.0	0.82	1		08/28/16 18:07	79-20-9	
Methylcyclohexane	ND	ug/L	10.0	1.9	1		08/28/16 18:07	108-87-2	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/28/16 18:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		08/28/16 18:07	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		08/28/16 18:07	1634-04-4	
Styrene	ND	ug/L	1.0	0.26	1		08/28/16 18:07	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		08/28/16 18:07	79-34-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: EB-01-082516 **Lab ID: 92310272008** Collected: 08/25/16 12:15 Received: 08/25/16 17:26 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Toluene	**5.0**	ug/L	1.0	0.26	1		08/28/16 18:07	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		08/28/16 18:07	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		08/28/16 18:07	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/28/16 18:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/28/16 18:07	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/28/16 18:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/28/16 18:07	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/28/16 18:07	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.19	1		08/28/16 18:07	76-13-1	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/28/16 18:07	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/28/16 18:07	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		08/28/16 18:07	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		08/28/16 18:07	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		08/28/16 18:07	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		08/28/16 18:07	2037-26-5	
Tentatively Identified Compounds									
1,3,5-Triazaadamantane, 7	**7.8**	ug/L			1		08/28/16 18:07	304880-73-7	N
Methylene Chloride	**5.7**	ug/L			1		08/28/16 18:07	75-09-2	N
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		08/29/16 22:27	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	102	%	50-150		1		08/29/16 22:27	17060-07-0	
Toluene-d8 (S)	107	%	50-150		1		08/29/16 22:27	2037-26-5	
7196 Chromium, Hexavalent	Analytical Method: EPA 7196								
Chromium, Hexavalent	ND	mg/L	0.010	0.010	1		09/08/16 06:44	18540-29-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Trip Blank 1 **Lab ID: 92310272009** Collected: 08/25/16 00:00 Received: 08/25/16 17:26 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		08/28/16 16:42	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		08/28/16 16:42	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		08/28/16 16:42	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/28/16 16:42	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		08/28/16 16:42	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		08/28/16 16:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		08/28/16 16:42	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		08/28/16 16:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/28/16 16:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		08/28/16 16:42	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		08/28/16 16:42	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		08/28/16 16:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/28/16 16:42	74-87-3	
Cyclohexane	ND	ug/L	1.0	0.36	1		08/28/16 16:42	110-82-7	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		08/28/16 16:42	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		08/28/16 16:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/28/16 16:42	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		08/28/16 16:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		08/28/16 16:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/28/16 16:42	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		08/28/16 16:42	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		08/28/16 16:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		08/28/16 16:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		08/28/16 16:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		08/28/16 16:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		08/28/16 16:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/28/16 16:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/28/16 16:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/28/16 16:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/28/16 16:42	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		08/28/16 16:42	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		08/28/16 16:42	99-87-6	
Methyl acetate	ND	ug/L	10.0	0.82	1		08/28/16 16:42	79-20-9	
Methylcyclohexane	ND	ug/L	10.0	1.9	1		08/28/16 16:42	108-87-2	
Methylene Chloride	**1.0J**	ug/L	2.0	0.97	1		08/28/16 16:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		08/28/16 16:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		08/28/16 16:42	1634-04-4	
Styrene	ND	ug/L	1.0	0.26	1		08/28/16 16:42	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		08/28/16 16:42	79-34-5	
Toluene	ND	ug/L	1.0	0.26	1		08/28/16 16:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		08/28/16 16:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		08/28/16 16:42	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/28/16 16:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/28/16 16:42	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/28/16 16:42	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/28/16 16:42	75-69-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Sample: Trip Blank 1 **Lab ID: 92310272009** Collected: 08/25/16 00:00 Received: 08/25/16 17:26 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/28/16 16:42	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	0.19	1		08/28/16 16:42	76-13-1	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/28/16 16:42	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/28/16 16:42	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		08/28/16 16:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		08/28/16 16:42	460-00-4	HS
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		08/28/16 16:42	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		08/28/16 16:42	2037-26-5	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326747 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92310272008

METHOD BLANK: 1810190 Matrix: Water
Associated Lab Samples: 92310272008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	09/01/16 10:53	

LABORATORY CONTROL SAMPLE: 1810191

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1810192 1810193

Parameter	Units	92310206001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.4	2.5	98	100	75-125	3	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326750 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005

METHOD BLANK: 1810198 Matrix: Solid
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.0050	0.00010	08/31/16 16:41	

LABORATORY CONTROL SAMPLE: 1810199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.083	0.076	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1810200 1810201

Parameter	Units	92309592001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.14	.041	.04	0.21	0.39	183	638	75-125	61	20	M6,R1

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326812 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 92310272006, 92310272007

METHOD BLANK: 1810393 Matrix: Solid
Associated Lab Samples: 92310272006, 92310272007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.0050	0.00010	09/01/16 06:37	

LABORATORY CONTROL SAMPLE: 1810394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.083	0.081	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1810395 1810396

Parameter	Units	92310411001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	ND	.033	.03	0.031	0.027	94	88	75-125	16	20	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326482 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006, 92310272007

METHOD BLANK: 1808718 Matrix: Solid
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006, 92310272007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/kg	ND	0.50	0.39	08/27/16 15:58	
Arsenic	mg/kg	ND	1.0	0.50	08/27/16 15:58	
Beryllium	mg/kg	ND	0.10	0.050	08/27/16 15:58	
Cadmium	mg/kg	ND	0.10	0.050	08/27/16 15:58	
Chromium	mg/kg	ND	0.50	0.25	08/30/16 15:14	
Copper	mg/kg	ND	0.50	0.25	08/27/16 15:58	
Lead	mg/kg	ND	0.50	0.25	08/27/16 15:58	
Manganese	mg/kg	ND	0.50	0.25	08/30/16 15:14	
Nickel	mg/kg	ND	0.50	0.25	08/30/16 15:14	
Selenium	mg/kg	ND	1.0	0.50	08/27/16 15:58	
Silver	mg/kg	ND	0.50	0.25	08/27/16 15:58	
Thallium	mg/kg	ND	1.0	0.50	08/27/16 15:58	
Zinc	mg/kg	ND	1.0	0.50	08/27/16 15:58	

LABORATORY CONTROL SAMPLE: 1808719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/kg	50	49.1	98	80-120	
Arsenic	mg/kg	50	47.6	95	80-120	
Beryllium	mg/kg	50	48.6	97	80-120	
Cadmium	mg/kg	50	49.0	98	80-120	
Chromium	mg/kg	50	50.7	101	80-120	
Copper	mg/kg	50	50.1	100	80-120	
Lead	mg/kg	50	48.4	97	80-120	
Manganese	mg/kg	50	50.2	100	80-120	
Nickel	mg/kg	50	48.0	96	80-120	
Selenium	mg/kg	50	49.8	100	80-120	
Silver	mg/kg	25	24.5	98	80-120	
Thallium	mg/kg	50	49.0	98	80-120	
Zinc	mg/kg	50	49.1	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1808720 1808721

Parameter	Units	35261878001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/kg	0.36U	42.6	34.8	16.4	10.4	38	29	75-125	45	20	M1,R1
Arsenic	mg/kg	1.1	42.6	34.8	31.4	24.0	71	66	75-125	27	20	M1,R1
Beryllium	mg/kg	1.1	42.6	34.8	38.3	30.2	87	84	75-125	23	20	R1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1808720 1808721

Parameter	Units	35261878001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/kg	0.046U	42.6	34.8	36.6	28.5	86	82	75-125	25	20	R1
Chromium	mg/kg	29.0	42.6	34.8	60.8	55.1	74	75	75-125	10	20	M1
Copper	mg/kg	23.1	42.6	34.8	56.4	49.1	78	75	75-125	14	20	
Lead	mg/kg	11.6	42.6	34.8	44.6	37.4	77	74	75-125	18	20	M1
Manganese	mg/kg	835	42.6	34.8	522	583	-735	-726	75-125	11	20	M1
Nickel	mg/kg	12.8	42.6	34.8	43.0	36.4	71	68	75-125	17	20	M1
Selenium	mg/kg	2.2	42.6	34.8	32.2	24.9	70	65	75-125	25	20	M1,R1
Silver	mg/kg	0.23U	21.4	17.4	19.0	15.0	88	85	75-125	24	20	R1
Thallium	mg/kg	0.46U	42.6	34.8	32.6	24.8	76	71	75-125	27	20	M1,R1
Zinc	mg/kg	40.4	42.6	34.8	64.5	61.1	57	59	75-125	6	20	M1

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326464 Analysis Method: EPA 6010
QC Batch Method: EPA 3010A Analysis Description: 6010 MET
Associated Lab Samples: 92310272008

METHOD BLANK: 1808617 Matrix: Water
Associated Lab Samples: 92310272008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	3.9	08/27/16 22:11	
Arsenic	ug/L	ND	10.0	5.0	08/27/16 22:11	
Beryllium	ug/L	ND	1.0	0.50	08/27/16 22:11	
Cadmium	ug/L	ND	1.0	0.50	08/27/16 22:11	
Chromium	ug/L	ND	5.0	2.5	08/27/16 22:11	
Copper	ug/L	ND	5.0	2.5	08/27/16 22:11	
Lead	ug/L	ND	5.0	2.5	08/27/16 22:11	
Manganese	ug/L	ND	5.0	2.5	08/27/16 22:11	
Nickel	ug/L	ND	5.0	2.5	08/27/16 22:11	
Selenium	ug/L	ND	10.0	5.0	08/27/16 22:11	
Silver	ug/L	ND	5.0	2.5	08/27/16 22:11	
Thallium	ug/L	ND	10.0	5.0	08/27/16 22:11	
Zinc	ug/L	ND	10.0	5.0	08/27/16 22:11	

LABORATORY CONTROL SAMPLE: 1808618

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	477	95	80-120	
Arsenic	ug/L	500	461	92	80-120	
Beryllium	ug/L	500	494	99	80-120	
Cadmium	ug/L	500	478	96	80-120	
Chromium	ug/L	500	482	96	80-120	
Copper	ug/L	500	492	98	80-120	
Lead	ug/L	500	473	95	80-120	
Manganese	ug/L	500	482	96	80-120	
Nickel	ug/L	500	470	94	80-120	
Selenium	ug/L	500	479	96	80-120	
Silver	ug/L	250	241	96	80-120	
Thallium	ug/L	500	481	96	80-120	
Zinc	ug/L	500	480	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1809205 1809206

Parameter	Units	92310128009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	492	480	98	96	75-125	2	20	
Arsenic	ug/L	ND	500	500	476	465	95	92	75-125	2	20	
Beryllium	ug/L	ND	500	500	520	511	104	102	75-125	2	20	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1809205 1809206

Parameter	Units	92310128009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	ug/L	67.1	500	500	562	553	99	97	75-125	2	20	
Chromium	ug/L	4.1J	500	500	503	506	100	100	75-125	1	20	
Copper	ug/L	ND	500	500	513	506	102	101	75-125	1	20	
Lead	ug/L	ND	500	500	477	471	95	94	75-125	1	20	
Manganese	ug/L	844	500	500	1340	1340	100	99	75-125	0	20	
Nickel	ug/L	160	500	500	635	633	95	94	75-125	0	20	
Selenium	ug/L	ND	500	500	488	480	97	96	75-125	2	20	
Silver	ug/L	ND	250	250	252	248	100	99	75-125	2	20	
Thallium	ug/L	ND	500	500	486	478	97	96	75-125	2	20	
Zinc	ug/L	721	500	500	1200	1200	96	96	75-125	0	20	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326454 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV Soil SIM
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006, 92310272007

METHOD BLANK: 1808568 Matrix: Solid
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006, 92310272007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/kg	ND	10.1	10.1	08/26/16 10:24	
1,2-Dichloroethane-d4 (S)	%	99	50-150		08/26/16 10:24	
Toluene-d8 (S)	%	100	50-150		08/26/16 10:24	

LABORATORY CONTROL SAMPLE: 1808569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/kg	38.3	36.3	95	50-150	
1,2-Dichloroethane-d4 (S)	%			106	50-150	
Toluene-d8 (S)	%			106	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1808866 1808867

Parameter	Units	50152858002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/kg	ND	29.8	31.7	37.9	40.1	118	118	50-150	6	30	
1,2-Dichloroethane-d4 (S)	%						149	139	50-150		150	
Toluene-d8 (S)	%						146	137	50-150		150	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326529 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92310272008, 92310272009

METHOD BLANK: 1809033 Matrix: Water
Associated Lab Samples: 92310272008, 92310272009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	08/28/16 16:08	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	08/28/16 16:08	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	08/28/16 16:08	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	0.19	08/28/16 16:08	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	08/28/16 16:08	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	08/28/16 16:08	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	08/28/16 16:08	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	08/28/16 16:08	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	08/28/16 16:08	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	08/28/16 16:08	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	08/28/16 16:08	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	08/28/16 16:08	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	08/28/16 16:08	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	08/28/16 16:08	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	08/28/16 16:08	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	08/28/16 16:08	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	08/28/16 16:08	
2-Hexanone	ug/L	ND	5.0	0.46	08/28/16 16:08	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	08/28/16 16:08	
Acetone	ug/L	ND	25.0	10.0	08/28/16 16:08	
Benzene	ug/L	ND	1.0	0.25	08/28/16 16:08	
Bromochloromethane	ug/L	ND	1.0	0.17	08/28/16 16:08	
Bromodichloromethane	ug/L	ND	1.0	0.18	08/28/16 16:08	
Bromoform	ug/L	ND	1.0	0.26	08/28/16 16:08	
Bromomethane	ug/L	ND	2.0	0.29	08/28/16 16:08	
Carbon disulfide	ug/L	ND	2.0	1.2	08/28/16 16:08	
Carbon tetrachloride	ug/L	ND	1.0	0.25	08/28/16 16:08	
Chlorobenzene	ug/L	ND	1.0	0.23	08/28/16 16:08	
Chloroethane	ug/L	ND	1.0	0.54	08/28/16 16:08	
Chloroform	ug/L	ND	1.0	0.14	08/28/16 16:08	
Chloromethane	ug/L	ND	1.0	0.11	08/28/16 16:08	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	08/28/16 16:08	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	08/28/16 16:08	
Cyclohexane	ug/L	ND	1.0	0.36	08/28/16 16:08	
Dibromochloromethane	ug/L	ND	1.0	0.21	08/28/16 16:08	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	08/28/16 16:08	
Ethylbenzene	ug/L	ND	1.0	0.30	08/28/16 16:08	
m&p-Xylene	ug/L	ND	2.0	0.66	08/28/16 16:08	
Methyl acetate	ug/L	ND	10.0	0.82	08/28/16 16:08	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	08/28/16 16:08	
Methylcyclohexane	ug/L	ND	10.0	1.9	08/28/16 16:08	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

METHOD BLANK: 1809033 Matrix: Water
Associated Lab Samples: 92310272008, 92310272009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methylene Chloride	ug/L	ND	2.0	0.97	08/28/16 16:08	
o-Xylene	ug/L	ND	1.0	0.23	08/28/16 16:08	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	08/28/16 16:08	
Styrene	ug/L	ND	1.0	0.26	08/28/16 16:08	
Toluene	ug/L	ND	1.0	0.26	08/28/16 16:08	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	08/28/16 16:08	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	08/28/16 16:08	
Trichloroethene	ug/L	ND	1.0	0.47	08/28/16 16:08	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	08/28/16 16:08	
Vinyl chloride	ug/L	ND	1.0	0.62	08/28/16 16:08	
1,2-Dichloroethane-d4 (S)	%	108	70-130		08/28/16 16:08	
4-Bromofluorobenzene (S)	%	92	70-130		08/28/16 16:08	
Toluene-d8 (S)	%	104	70-130		08/28/16 16:08	

LABORATORY CONTROL SAMPLE: 1809034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	51.7	103	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.4	95	70-130	
1,1,2-Trichloroethane	ug/L	50	48.2	96	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	50	44.6	89	70-130	
1,1-Dichloroethane	ug/L	50	52.4	105	70-130	
1,1-Dichloroethene	ug/L	50	51.0	102	70-132	
1,2,3-Trichlorobenzene	ug/L	50	50.5	101	70-135	
1,2,3-Trichloropropane	ug/L	50	46.6	93	70-130	
1,2,4-Trichlorobenzene	ug/L	50	47.5	95	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	56.5	113	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	53.2	106	70-130	
1,2-Dichlorobenzene	ug/L	50	52.5	105	70-130	
1,2-Dichloroethane	ug/L	50	48.5	97	70-130	
1,2-Dichloropropane	ug/L	50	48.0	96	70-130	
1,3-Dichlorobenzene	ug/L	50	50.4	101	70-130	
1,4-Dichlorobenzene	ug/L	50	49.0	98	70-130	
2-Butanone (MEK)	ug/L	100	108	108	70-145	
2-Hexanone	ug/L	100	104	104	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	70-140	
Acetone	ug/L	100	117	117	50-175	
Benzene	ug/L	50	49.8	100	70-130	
Bromochloromethane	ug/L	50	52.8	106	70-130	
Bromodichloromethane	ug/L	50	50.3	101	70-130	
Bromoform	ug/L	50	45.0	90	70-130	
Bromomethane	ug/L	50	43.5	87	54-130	
Carbon disulfide	ug/L	50	51.5	103	70-131	
Carbon tetrachloride	ug/L	50	48.1	96	70-132	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

LABORATORY CONTROL SAMPLE: 1809034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorobenzene	ug/L	50	48.7	97	70-130	
Chloroethane	ug/L	50	42.2	84	64-134	
Chloroform	ug/L	50	52.1	104	70-130	
Chloromethane	ug/L	50	48.7	97	64-130	
cis-1,2-Dichloroethene	ug/L	50	53.1	106	70-131	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	70-130	
Cyclohexane	ug/L	50	54.3	109	70-130	
Dibromochloromethane	ug/L	50	50.5	101	70-130	
Dichlorodifluoromethane	ug/L	50	49.2	98	56-130	
Ethylbenzene	ug/L	50	48.4	97	70-130	
m&p-Xylene	ug/L	100	98.2	98	70-130	
Methyl acetate	ug/L	50	60.7	121	70-130	
Methyl-tert-butyl ether	ug/L	50	57.5	115	70-130	
Methylcyclohexane	ug/L	50	51.2	102	70-130	
Methylene Chloride	ug/L	50	52.8	106	63-130	
o-Xylene	ug/L	50	49.1	98	70-130	
p-Isopropyltoluene	ug/L	50	54.0	108	70-130	
Styrene	ug/L	50	52.3	105	70-130	
Toluene	ug/L	50	47.7	95	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.7	101	70-130	
trans-1,3-Dichloropropene	ug/L	50	50.5	101	70-132	
Trichloroethene	ug/L	50	47.3	95	70-130	
Trichlorofluoromethane	ug/L	50	42.9	86	62-133	
Vinyl chloride	ug/L	50	51.6	103	50-150	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			94	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1809035 1809036

Parameter	Units	92310259013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	25.6	25.1	128	126	70-130	2	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	20.0	20.4	100	102	70-130	2	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	21.2	20.9	106	105	70-130	1	30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	20	20	23.1	20.9	115	105	70-130	10	30	
1,1-Dichloroethane	ug/L	ND	20	20	25.9	24.6	130	123	70-130	5	30	
1,1-Dichloroethene	ug/L	ND	20	20	27.8	24.6	139	123	70-166	12	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	20.0	21.5	100	108	70-130	7	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	19.8	20.2	99	101	70-130	2	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	19.3	18.9	96	95	70-130	2	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	22.9	23.8	115	119	70-130	4	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	22.4	23.0	112	115	70-130	3	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	22.6	22.4	113	112	70-130	1	30	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1809035 1809036

Parameter	Units	92310259013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	23.0	22.3	115	112	70-130	3	30	
1,2-Dichloropropane	ug/L	ND	20	20	23.3	21.9	116	110	70-130	6	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	22.7	22.5	114	112	70-130	1	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	21.5	21.5	107	108	70-130	0	30	
2-Butanone (MEK)	ug/L	ND	40	40	59.1	51.6	148	129	70-130	14	30	M1
2-Hexanone	ug/L	ND	40	40	48.6	48.2	122	121	70-130	1	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	47.7	44.1	119	110	70-130	8	30	
Acetone	ug/L	ND	40	40	65.0	55.1	162	138	70-130	16	30	M1
Benzene	ug/L	ND	20	20	24.1	22.7	121	113	70-148	6	30	
Bromochloromethane	ug/L	ND	20	20	25.4	24.6	127	123	70-130	3	30	
Bromodichloromethane	ug/L	ND	20	20	23.1	21.9	115	110	70-130	5	30	
Bromoform	ug/L	ND	20	20	17.2	16.9	86	84	70-130	2	30	
Bromomethane	ug/L	ND	20	20	16.6	18.0	83	90	70-130	8	30	
Carbon disulfide	ug/L	ND	20	20	26.5	25.4	133	127	70-130	4	30	M1
Carbon tetrachloride	ug/L	ND	20	20	23.8	22.9	119	114	70-130	4	30	
Chlorobenzene	ug/L	ND	20	20	22.3	22.3	111	111	70-146	0	30	
Chloroethane	ug/L	ND	20	20	26.9	24.4	134	122	70-130	10	30	M1
Chloroform	ug/L	6.8	20	20	31.3	31.2	123	122	70-130	0	30	
Chloromethane	ug/L	ND	20	20	26.8	25.5	134	128	70-130	5	30	M1
cis-1,2-Dichloroethene	ug/L	ND	20	20	26.7	26.0	129	125	70-130	3	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.8	18.7	99	94	70-130	5	30	
Cyclohexane	ug/L	ND	20	20	28.2	26.7	141	133	70-130	6	30	M1
Dibromochloromethane	ug/L	ND	20	20	19.6	20.3	98	102	70-130	4	30	
Dichlorodifluoromethane	ug/L	ND	20	20	26.8	25.2	134	126	70-130	6	30	M1
Ethylbenzene	ug/L	ND	20	20	22.5	22.3	112	111	70-130	1	30	
m&p-Xylene	ug/L	ND	40	40	44.5	44.3	111	111	70-130	1	30	
Methyl acetate	ug/L	ND	20	20	13.3	14.9	67	75	70-130	12	30	M1
Methyl-tert-butyl ether	ug/L	2.2	20	20	27.1	27.1	125	125	70-130	0	30	
Methylcyclohexane	ug/L	ND	20	20	22.7	22.4	114	112	70-130	1	30	
Methylene Chloride	ug/L	ND	20	20	25.0	23.4	125	117	70-130	6	30	
o-Xylene	ug/L	ND	20	20	22.4	22.2	112	111	70-130	1	30	
p-Isopropyltoluene	ug/L	ND	20	20	23.8	23.8	119	119	70-130	0	30	
Styrene	ug/L	ND	20	20	20.8	21.0	104	105	70-130	1	30	
Toluene	ug/L	ND	20	20	22.6	21.8	113	109	70-155	4	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	26.5	26.1	133	131	70-130	2	30	M1
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.2	18.1	96	91	70-130	6	30	
Trichloroethene	ug/L	1.2	20	20	24.5	23.2	117	110	69-151	5	30	
Trichlorofluoromethane	ug/L	ND	20	20	25.5	24.0	128	120	70-130	6	30	
Vinyl chloride	ug/L	ND	20	20	27.0	26.2	135	131	70-130	3	30	M1
1,2-Dichloroethane-d4 (S)	%						107	106	70-130			
4-Bromofluorobenzene (S)	%						91	95	70-130			
Toluene-d8 (S)	%						99	98	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326694 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92310272008

METHOD BLANK: 1809921 Matrix: Water
Associated Lab Samples: 92310272008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	1.9	08/29/16 14:02	
1,2-Dichloroethane-d4 (S)	%	100	50-150		08/29/16 14:02	
Toluene-d8 (S)	%	104	50-150		08/29/16 14:02	

LABORATORY CONTROL SAMPLE: 1809922

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	18.1	91	71-125	
1,2-Dichloroethane-d4 (S)	%			100	50-150	
Toluene-d8 (S)	%			103	50-150	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326487 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006

METHOD BLANK: 1808737 Matrix: Solid
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/kg	ND	5.9	2.1	08/26/16 11:28	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.9	2.2	08/26/16 11:28	
1,1,2-Trichloroethane	ug/kg	ND	5.9	2.5	08/26/16 11:28	
1,1,2-Trichlorotrifluoroethane	ug/kg	ND	5.9	2.2	08/26/16 11:28	
1,1-Dichloroethane	ug/kg	ND	5.9	1.8	08/26/16 11:28	
1,1-Dichloroethene	ug/kg	ND	5.9	2.1	08/26/16 11:28	
1,2,3-Trichlorobenzene	ug/kg	ND	5.9	2.6	08/26/16 11:28	
1,2,4-Trichlorobenzene	ug/kg	ND	5.9	1.9	08/26/16 11:28	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.9	4.3	08/26/16 11:28	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.9	2.1	08/26/16 11:28	
1,2-Dichlorobenzene	ug/kg	ND	5.9	2.2	08/26/16 11:28	
1,2-Dichloroethane	ug/kg	ND	5.9	2.6	08/26/16 11:28	
1,2-Dichloropropane	ug/kg	ND	5.9	2.0	08/26/16 11:28	
1,3-Dichlorobenzene	ug/kg	ND	5.9	2.4	08/26/16 11:28	
1,4-Dichlorobenzene	ug/kg	ND	5.9	2.0	08/26/16 11:28	
2-Butanone (MEK)	ug/kg	ND	118	3.4	08/26/16 11:28	
2-Hexanone	ug/kg	ND	59.1	4.6	08/26/16 11:28	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	59.1	4.4	08/26/16 11:28	
Acetone	ug/kg	ND	118	11.8	08/26/16 11:28	
Benzene	ug/kg	ND	5.9	1.9	08/26/16 11:28	
Bromochloromethane	ug/kg	ND	5.9	2.0	08/26/16 11:28	
Bromodichloromethane	ug/kg	ND	5.9	2.2	08/26/16 11:28	
Bromoform	ug/kg	ND	5.9	2.7	08/26/16 11:28	
Bromomethane	ug/kg	ND	11.8	3.0	08/26/16 11:28	
Carbon disulfide	ug/kg	ND	11.8	3.5	08/26/16 11:28	
Carbon tetrachloride	ug/kg	ND	5.9	3.1	08/26/16 11:28	
Chlorobenzene	ug/kg	ND	5.9	2.2	08/26/16 11:28	
Chloroethane	ug/kg	ND	11.8	2.8	08/26/16 11:28	
Chloroform	ug/kg	ND	5.9	1.9	08/26/16 11:28	
Chloromethane	ug/kg	ND	11.8	2.8	08/26/16 11:28	
cis-1,2-Dichloroethene	ug/kg	ND	5.9	1.7	08/26/16 11:28	
cis-1,3-Dichloropropene	ug/kg	ND	5.9	2.1	08/26/16 11:28	
Cyclohexane	ug/kg	ND	5.9	1.9	08/26/16 11:28	
Dibromochloromethane	ug/kg	ND	5.9	2.1	08/26/16 11:28	
Dichlorodifluoromethane	ug/kg	ND	11.8	4.3	08/26/16 11:28	
Ethylbenzene	ug/kg	ND	5.9	2.1	08/26/16 11:28	
Isopropylbenzene (Cumene)	ug/kg	ND	5.9	2.2	08/26/16 11:28	
m&p-Xylene	ug/kg	ND	11.8	4.3	08/26/16 11:28	
Methyl acetate	ug/kg	ND	11.8	1.7	08/26/16 11:28	
Methyl-tert-butyl ether	ug/kg	ND	5.9	1.8	08/26/16 11:28	
Methylcyclohexane	ug/kg	ND	11.8	1.8	08/26/16 11:28	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

METHOD BLANK: 1808737 Matrix: Solid
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methylene Chloride	ug/kg	ND	23.6	3.5	08/26/16 11:28	
o-Xylene	ug/kg	ND	5.9	2.2	08/26/16 11:28	
Styrene	ug/kg	ND	5.9	2.1	08/26/16 11:28	
Tetrachloroethene	ug/kg	ND	5.9	2.0	08/26/16 11:28	
Toluene	ug/kg	ND	5.9	2.1	08/26/16 11:28	
trans-1,2-Dichloroethene	ug/kg	ND	5.9	2.2	08/26/16 11:28	
trans-1,3-Dichloropropene	ug/kg	ND	5.9	1.8	08/26/16 11:28	
Trichloroethene	ug/kg	ND	5.9	2.5	08/26/16 11:28	
Trichlorofluoromethane	ug/kg	ND	5.9	2.6	08/26/16 11:28	
Vinyl chloride	ug/kg	ND	11.8	2.1	08/26/16 11:28	
1,2-Dichloroethane-d4 (S)	%	121	70-132		08/26/16 11:28	
4-Bromofluorobenzene (S)	%	97	70-130		08/26/16 11:28	
Toluene-d8 (S)	%	101	70-130		08/26/16 11:28	

LABORATORY CONTROL SAMPLE: 1808738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	50.7	58.5	115	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	50.7	47.4	94	72-141	
1,1,2-Trichloroethane	ug/kg	50.7	50.5	100	78-138	
1,1,2-Trichlorotrifluoroethane	ug/kg	50.7	54.2	107	82-143	
1,1-Dichloroethane	ug/kg	50.7	56.0	111	69-134	
1,1-Dichloroethene	ug/kg	50.7	55.7	110	67-138	
1,2,3-Trichlorobenzene	ug/kg	50.7	53.0	105	70-146	
1,2,4-Trichlorobenzene	ug/kg	50.7	54.4	107	68-148	
1,2-Dibromo-3-chloropropane	ug/kg	50.7	58.1	115	65-140	
1,2-Dibromoethane (EDB)	ug/kg	50.7	57.2	113	77-135	
1,2-Dichlorobenzene	ug/kg	50.7	58.6	116	77-141	
1,2-Dichloroethane	ug/kg	50.7	60.0	118	65-137	
1,2-Dichloropropane	ug/kg	50.7	51.8	102	72-136	
1,3-Dichlorobenzene	ug/kg	50.7	55.3	109	74-138	
1,4-Dichlorobenzene	ug/kg	50.7	54.5	108	76-138	
2-Butanone (MEK)	ug/kg	101	111	110	58-147	
2-Hexanone	ug/kg	101	113	111	62-145	
4-Methyl-2-pentanone (MIBK)	ug/kg	101	114	113	64-149	
Acetone	ug/kg	101	99.4J	98	53-153	
Benzene	ug/kg	50.7	53.6	106	73-135	
Bromochloromethane	ug/kg	50.7	54.6	108	73-134	
Bromodichloromethane	ug/kg	50.7	59.0	116	71-135	
Bromoform	ug/kg	50.7	51.0	101	66-141	
Bromomethane	ug/kg	50.7	58.6	116	53-160	
Carbon disulfide	ug/kg	50.7	53.4	105	63-140	
Carbon tetrachloride	ug/kg	50.7	56.3	111	60-145	
Chlorobenzene	ug/kg	50.7	55.0	109	78-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

LABORATORY CONTROL SAMPLE: 1808738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloroethane	ug/kg	50.7	55.3	109	64-149	
Chloroform	ug/kg	50.7	59.5	117	70-134	
Chloromethane	ug/kg	50.7	59.9	118	52-150	
cis-1,2-Dichloroethene	ug/kg	50.7	58.9	116	70-133	
cis-1,3-Dichloropropene	ug/kg	50.7	57.1	113	68-134	
Cyclohexane	ug/kg	50.7	55.3	109	79-146	
Dibromochloromethane	ug/kg	50.7	53.9	106	71-138	
Dichlorodifluoromethane	ug/kg	50.7	55.7	110	40-160	
Ethylbenzene	ug/kg	50.7	53.6	106	75-133	
Isopropylbenzene (Cumene)	ug/kg	50.7	52.8	104	76-143	
m&p-Xylene	ug/kg	101	109	107	75-136	
Methyl acetate	ug/kg	50.7	48.4	95	31-160	
Methyl-tert-butyl ether	ug/kg	50.7	59.7	118	68-144	
Methylcyclohexane	ug/kg	50.7	52.2	103	84-149	
Methylene Chloride	ug/kg	50.7	53.5	105	45-154	
o-Xylene	ug/kg	50.7	53.0	104	76-141	
Styrene	ug/kg	50.7	56.4	111	79-137	
Tetrachloroethene	ug/kg	50.7	43.9	87	71-138	
Toluene	ug/kg	50.7	55.1	109	74-131	
trans-1,2-Dichloroethene	ug/kg	50.7	56.6	112	67-135	
trans-1,3-Dichloropropene	ug/kg	50.7	53.2	105	65-146	
Trichloroethene	ug/kg	50.7	54.6	108	67-135	
Trichlorofluoromethane	ug/kg	50.7	57.0	112	59-144	
Vinyl chloride	ug/kg	50.7	55.2	109	56-141	
1,2-Dichloroethane-d4 (S)	%			114	70-132	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE SAMPLE: 1809743

Parameter	Units	92310272001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	ND	21.3	18.1	85	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	21.3	20.3	95	70-130	
1,1,2-Trichloroethane	ug/kg	ND	21.3	19.5	91	70-130	
1,1,2-Trichlorotrifluoroethane	ug/kg	ND	21.3	18.7	88	70-130	
1,1-Dichloroethane	ug/kg	ND	21.3	21.1	99	70-130	
1,1-Dichloroethene	ug/kg	ND	21.3	19.4	91	49-180	
1,2,3-Trichlorobenzene	ug/kg	ND	21.3	9.6	45	70-130	M1
1,2,4-Trichlorobenzene	ug/kg	ND	21.3	9.4	44	70-130	M1
1,2-Dibromo-3-chloropropane	ug/kg	ND	21.3	15.1	71	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	21.3	20.5	96	70-130	
1,2-Dichlorobenzene	ug/kg	ND	21.3	14.8	70	70-130	
1,2-Dichloroethane	ug/kg	ND	21.3	22.8	107	70-130	
1,2-Dichloropropane	ug/kg	ND	21.3	18.1	85	70-130	
1,3-Dichlorobenzene	ug/kg	ND	21.3	13.8	65	70-130	M1

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

MATRIX SPIKE SAMPLE: 1809743

Parameter	Units	92310272001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/kg	ND	21.3	13.5	63	70-130	M1
2-Butanone (MEK)	ug/kg	ND	42.7	49.3J	115	70-130	
2-Hexanone	ug/kg	ND	42.7	50.6J	119	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	42.7	48.3J	113	70-130	
Acetone	ug/kg	23.8J	42.7	53.9J	70	70-130	
Benzene	ug/kg	ND	21.3	18.7	87	50-166	
Bromochloromethane	ug/kg	ND	21.3	21.4	100	70-130	
Bromodichloromethane	ug/kg	ND	21.3	19.8	93	70-130	
Bromoform	ug/kg	ND	21.3	14.8	70	70-130	
Bromomethane	ug/kg	ND	21.3	20.8	97	70-130	
Carbon disulfide	ug/kg	ND	21.3	20.4	95	70-130	
Carbon tetrachloride	ug/kg	ND	21.3	15.7	73	70-130	
Chlorobenzene	ug/kg	ND	21.3	17.3	81	43-169	
Chloroethane	ug/kg	ND	21.3	21.2	99	70-130	
Chloroform	ug/kg	ND	21.3	20.2	95	70-130	
Chloromethane	ug/kg	ND	21.3	19.8	93	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	21.3	20.8	97	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	21.3	18.6	87	70-130	
Cyclohexane	ug/kg	ND	21.3	19.4	91	70-130	
Dibromochloromethane	ug/kg	ND	21.3	16.4	77	70-130	
Dichlorodifluoromethane	ug/kg	ND	21.3	18.5	87	70-130	
Ethylbenzene	ug/kg	ND	21.3	16.5	77	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	21.3	14.9	70	70-130	
m&p-Xylene	ug/kg	ND	42.7	32.2	75	70-130	
Methyl acetate	ug/kg	ND	21.3	16.3	76	70-130	
Methyl-tert-butyl ether	ug/kg	ND	21.3	26.3	123	70-130	
Methylcyclohexane	ug/kg	ND	21.3	15.5	73	70-130	
Methylene Chloride	ug/kg	18.1	21.3	30.1	56	70-130	M1
o-Xylene	ug/kg	ND	21.3	16.2	76	70-130	
Styrene	ug/kg	ND	21.3	17.3	81	70-130	
Tetrachloroethene	ug/kg	ND	21.3	12.2	57	70-130	M1
Toluene	ug/kg	ND	21.3	18.3	86	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	21.3	19.3	90	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	21.3	17.1	80	70-130	
Trichloroethene	ug/kg	ND	21.3	16.4	77	49-167	
Trichlorofluoromethane	ug/kg	ND	21.3	19.5	91	70-130	
Vinyl chloride	ug/kg	ND	21.3	19.2	90	70-130	
1,2-Dichloroethane-d4 (S)	%				118	70-132	
4-Bromofluorobenzene (S)	%				108	70-130	
Toluene-d8 (S)	%				103	70-130	

SAMPLE DUPLICATE: 1809742

Parameter	Units	92310183001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/kg	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

SAMPLE DUPLICATE: 1809742

Parameter	Units	92310183001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1,2-Trichlorotrifluoroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	ND		30	
Benzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon disulfide	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Cyclohexane	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl acetate	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylcyclohexane	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

SAMPLE DUPLICATE: 1809742

Parameter	Units	92310183001 Result	Dup Result	RPD	Max RPD	Qualifiers
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	109	104	12		
4-Bromofluorobenzene (S)	%	93	102	1		
Toluene-d8 (S)	%	102	102	7		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326488 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92310272007

METHOD BLANK: 1808739 Matrix: Solid
Associated Lab Samples: 92310272007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/kg	ND	5.5	2.0	08/26/16 11:08	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.5	2.1	08/26/16 11:08	
1,1,2-Trichloroethane	ug/kg	ND	5.5	2.3	08/26/16 11:08	
1,1,2-Trichlorotrifluoroethane	ug/kg	ND	5.5	2.1	08/26/16 11:08	
1,1-Dichloroethane	ug/kg	ND	5.5	1.7	08/26/16 11:08	
1,1-Dichloroethene	ug/kg	ND	5.5	2.0	08/26/16 11:08	
1,2,3-Trichlorobenzene	ug/kg	ND	5.5	2.4	08/26/16 11:08	
1,2,4-Trichlorobenzene	ug/kg	ND	5.5	1.8	08/26/16 11:08	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.5	4.0	08/26/16 11:08	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.5	2.0	08/26/16 11:08	
1,2-Dichlorobenzene	ug/kg	ND	5.5	2.1	08/26/16 11:08	
1,2-Dichloroethane	ug/kg	ND	5.5	2.4	08/26/16 11:08	
1,2-Dichloropropane	ug/kg	ND	5.5	1.9	08/26/16 11:08	
1,3-Dichlorobenzene	ug/kg	ND	5.5	2.2	08/26/16 11:08	
1,4-Dichlorobenzene	ug/kg	ND	5.5	1.9	08/26/16 11:08	
2-Butanone (MEK)	ug/kg	ND	111	3.2	08/26/16 11:08	
2-Hexanone	ug/kg	ND	55.3	4.3	08/26/16 11:08	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	55.3	4.1	08/26/16 11:08	
Acetone	ug/kg	ND	111	11.1	08/26/16 11:08	
Benzene	ug/kg	ND	5.5	1.8	08/26/16 11:08	
Bromochloromethane	ug/kg	ND	5.5	1.9	08/26/16 11:08	
Bromodichloromethane	ug/kg	ND	5.5	2.1	08/26/16 11:08	
Bromoform	ug/kg	ND	5.5	2.5	08/26/16 11:08	
Bromomethane	ug/kg	ND	11.1	2.8	08/26/16 11:08	
Carbon disulfide	ug/kg	ND	11.1	3.3	08/26/16 11:08	
Carbon tetrachloride	ug/kg	ND	5.5	2.9	08/26/16 11:08	
Chlorobenzene	ug/kg	ND	5.5	2.1	08/26/16 11:08	
Chloroethane	ug/kg	ND	11.1	2.7	08/26/16 11:08	
Chloroform	ug/kg	ND	5.5	1.8	08/26/16 11:08	
Chloromethane	ug/kg	ND	11.1	2.7	08/26/16 11:08	
cis-1,2-Dichloroethene	ug/kg	ND	5.5	1.5	08/26/16 11:08	
cis-1,3-Dichloropropene	ug/kg	ND	5.5	2.0	08/26/16 11:08	
Cyclohexane	ug/kg	ND	5.5	1.8	08/26/16 11:08	
Dibromochloromethane	ug/kg	ND	5.5	2.0	08/26/16 11:08	
Dichlorodifluoromethane	ug/kg	ND	11.1	4.0	08/26/16 11:08	
Ethylbenzene	ug/kg	ND	5.5	2.0	08/26/16 11:08	
Isopropylbenzene (Cumene)	ug/kg	ND	5.5	2.1	08/26/16 11:08	
m&p-Xylene	ug/kg	ND	11.1	4.0	08/26/16 11:08	
Methyl acetate	ug/kg	ND	11.1	1.5	08/26/16 11:08	
Methyl-tert-butyl ether	ug/kg	ND	5.5	1.7	08/26/16 11:08	
Methylcyclohexane	ug/kg	ND	11.1	1.7	08/26/16 11:08	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

METHOD BLANK: 1808739 Matrix: Solid
Associated Lab Samples: 92310272007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methylene Chloride	ug/kg	ND	22.1	3.3	08/26/16 11:08	
o-Xylene	ug/kg	ND	5.5	2.1	08/26/16 11:08	
Styrene	ug/kg	ND	5.5	2.0	08/26/16 11:08	
Tetrachloroethene	ug/kg	ND	5.5	1.9	08/26/16 11:08	
Toluene	ug/kg	ND	5.5	2.0	08/26/16 11:08	
trans-1,2-Dichloroethene	ug/kg	ND	5.5	2.1	08/26/16 11:08	
trans-1,3-Dichloropropene	ug/kg	ND	5.5	1.7	08/26/16 11:08	
Trichloroethene	ug/kg	ND	5.5	2.3	08/26/16 11:08	
Trichlorofluoromethane	ug/kg	ND	5.5	2.4	08/26/16 11:08	
Vinyl chloride	ug/kg	ND	11.1	2.0	08/26/16 11:08	
1,2-Dichloroethane-d4 (S)	%	119	70-132		08/26/16 11:08	
4-Bromofluorobenzene (S)	%	98	70-130		08/26/16 11:08	
Toluene-d8 (S)	%	102	70-130		08/26/16 11:08	

LABORATORY CONTROL SAMPLE: 1808740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	55.2	64.6	117	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	55.2	49.4	89	72-141	
1,1,2-Trichloroethane	ug/kg	55.2	56.0	101	78-138	
1,1,2-Trichlorotrifluoroethane	ug/kg	55.2	60.2	109	82-143	
1,1-Dichloroethane	ug/kg	55.2	63.5	115	69-134	
1,1-Dichloroethene	ug/kg	55.2	59.7	108	67-138	
1,2,3-Trichlorobenzene	ug/kg	55.2	56.0	102	70-146	
1,2,4-Trichlorobenzene	ug/kg	55.2	59.0	107	68-148	
1,2-Dibromo-3-chloropropane	ug/kg	55.2	60.2	109	65-140	
1,2-Dibromoethane (EDB)	ug/kg	55.2	60.7	110	77-135	
1,2-Dichlorobenzene	ug/kg	55.2	61.5	111	77-141	
1,2-Dichloroethane	ug/kg	55.2	67.1	122	65-137	
1,2-Dichloropropane	ug/kg	55.2	55.0	100	72-136	
1,3-Dichlorobenzene	ug/kg	55.2	57.0	103	74-138	
1,4-Dichlorobenzene	ug/kg	55.2	58.6	106	76-138	
2-Butanone (MEK)	ug/kg	110	128	116	58-147	
2-Hexanone	ug/kg	110	124	113	62-145	
4-Methyl-2-pentanone (MIBK)	ug/kg	110	123	111	64-149	
Acetone	ug/kg	110	114	103	53-153	
Benzene	ug/kg	55.2	57.4	104	73-135	
Bromochloromethane	ug/kg	55.2	61.5	111	73-134	
Bromodichloromethane	ug/kg	55.2	64.4	117	71-135	
Bromoform	ug/kg	55.2	52.2	95	66-141	
Bromomethane	ug/kg	55.2	64.7	117	53-160	
Carbon disulfide	ug/kg	55.2	60.5	110	63-140	
Carbon tetrachloride	ug/kg	55.2	60.9	110	60-145	
Chlorobenzene	ug/kg	55.2	59.7	108	78-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

LABORATORY CONTROL SAMPLE: 1808740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloroethane	ug/kg	55.2	61.4	111	64-149	
Chloroform	ug/kg	55.2	63.8	116	70-134	
Chloromethane	ug/kg	55.2	65.4	118	52-150	
cis-1,2-Dichloroethene	ug/kg	55.2	65.2	118	70-133	
cis-1,3-Dichloropropene	ug/kg	55.2	60.5	110	68-134	
Cyclohexane	ug/kg	55.2	63.5	115	79-146	
Dibromochloromethane	ug/kg	55.2	60.3	109	71-138	
Dichlorodifluoromethane	ug/kg	55.2	62.5	113	40-160	
Ethylbenzene	ug/kg	55.2	57.9	105	75-133	
Isopropylbenzene (Cumene)	ug/kg	55.2	57.0	103	76-143	
m&p-Xylene	ug/kg	110	116	105	75-136	
Methyl acetate	ug/kg	55.2	58.6	106	31-160	
Methyl-tert-butyl ether	ug/kg	55.2	65.9	119	68-144	
Methylcyclohexane	ug/kg	55.2	59.1	107	84-149	
Methylene Chloride	ug/kg	55.2	60.2	109	45-154	
o-Xylene	ug/kg	55.2	57.4	104	76-141	
Styrene	ug/kg	55.2	60.7	110	79-137	
Tetrachloroethene	ug/kg	55.2	48.1	87	71-138	
Toluene	ug/kg	55.2	59.8	108	74-131	
trans-1,2-Dichloroethene	ug/kg	55.2	64.5	117	67-135	
trans-1,3-Dichloropropene	ug/kg	55.2	59.4	108	65-146	
Trichloroethene	ug/kg	55.2	59.5	108	67-135	
Trichlorofluoromethane	ug/kg	55.2	64.6	117	59-144	
Vinyl chloride	ug/kg	55.2	62.0	112	56-141	
1,2-Dichloroethane-d4 (S)	%			117	70-132	
4-Bromofluorobenzene (S)	%			105	70-130	
Toluene-d8 (S)	%			101	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326811 Analysis Method: EPA 8270
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006, 92310272007

METHOD BLANK: 1810383 Matrix: Solid
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006, 92310272007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/kg	ND	330	120	08/30/16 16:35	
2,2'-Oxybis(1-chloropropane)	ug/kg	ND	330	88.0	08/30/16 16:35	
2,3,4,6-Tetrachlorophenol	ug/kg	ND	330	130	08/30/16 16:35	
2,4,5-Trichlorophenol	ug/kg	ND	330	102	08/30/16 16:35	
2,4,6-Trichlorophenol	ug/kg	ND	330	73.0	08/30/16 16:35	
2,4-Dichlorophenol	ug/kg	ND	330	72.0	08/30/16 16:35	
2,4-Dimethylphenol	ug/kg	ND	330	130	08/30/16 16:35	
2,4-Dinitrophenol	ug/kg	ND	1650	54.0	08/30/16 16:35	
2,4-Dinitrotoluene	ug/kg	ND	330	62.0	08/30/16 16:35	
2,6-Dinitrotoluene	ug/kg	ND	330	69.0	08/30/16 16:35	
2-Chloronaphthalene	ug/kg	ND	330	65.0	08/30/16 16:35	
2-Chlorophenol	ug/kg	ND	330	90.0	08/30/16 16:35	
2-Methylnaphthalene	ug/kg	ND	330	71.0	08/30/16 16:35	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	100	08/30/16 16:35	
2-Nitroaniline	ug/kg	ND	1650	102	08/30/16 16:35	
2-Nitrophenol	ug/kg	ND	330	80.0	08/30/16 16:35	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	330	130	08/30/16 16:35	
3,3'-Dichlorobenzidine	ug/kg	ND	1650	72.0	08/30/16 16:35	
3-Nitroaniline	ug/kg	ND	1650	90.0	08/30/16 16:35	
4,6-Dinitro-2-methylphenol	ug/kg	ND	660	66.0	08/30/16 16:35	
4-Bromophenylphenyl ether	ug/kg	ND	330	60.0	08/30/16 16:35	
4-Chloro-3-methylphenol	ug/kg	ND	660	68.0	08/30/16 16:35	
4-Chloroaniline	ug/kg	ND	1650	92.0	08/30/16 16:35	
4-Chlorophenylphenyl ether	ug/kg	ND	330	68.0	08/30/16 16:35	
4-Nitroaniline	ug/kg	ND	660	93.0	08/30/16 16:35	
4-Nitrophenol	ug/kg	ND	1650	59.0	08/30/16 16:35	
Acenaphthene	ug/kg	ND	330	76.0	08/30/16 16:35	
Acenaphthylene	ug/kg	ND	330	78.0	08/30/16 16:35	
Acetophenone	ug/kg	ND	330	170	08/30/16 16:35	
Anthracene	ug/kg	ND	330	74.0	08/30/16 16:35	
Atrazine	ug/kg	ND	660	130	08/30/16 16:35	
Benzaldehyde	ug/kg	ND	660	330	08/30/16 16:35	
Benzo(a)anthracene	ug/kg	ND	330	61.0	08/30/16 16:35	
Benzo(a)pyrene	ug/kg	ND	330	63.0	08/30/16 16:35	
Benzo(b)fluoranthene	ug/kg	ND	330	57.0	08/30/16 16:35	
Benzo(g,h,i)perylene	ug/kg	ND	330	84.0	08/30/16 16:35	
Benzo(k)fluoranthene	ug/kg	ND	330	65.0	08/30/16 16:35	
Biphenyl (Diphenyl)	ug/kg	ND	330	104	08/30/16 16:35	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	77.0	08/30/16 16:35	
bis(2-Chloroethyl) ether	ug/kg	ND	330	84.0	08/30/16 16:35	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	90.0	08/30/16 16:35	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

METHOD BLANK: 1810383 Matrix: Solid
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006, 92310272007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Butylbenzylphthalate	ug/kg	ND	330	70.0	08/30/16 16:35	
Caprolactam	ug/kg	ND	330	57.0	08/30/16 16:35	
Carbazole	ug/kg	ND	330	63.0	08/30/16 16:35	
Chrysene	ug/kg	ND	330	44.0	08/30/16 16:35	
Di-n-butylphthalate	ug/kg	ND	330	54.0	08/30/16 16:35	
Di-n-octylphthalate	ug/kg	ND	330	69.0	08/30/16 16:35	
Dibenz(a,h)anthracene	ug/kg	ND	330	70.0	08/30/16 16:35	
Dibenzofuran	ug/kg	ND	330	54.0	08/30/16 16:35	
Diethylphthalate	ug/kg	ND	330	51.0	08/30/16 16:35	
Dimethylphthalate	ug/kg	ND	330	67.0	08/30/16 16:35	
Fluoranthene	ug/kg	ND	330	48.0	08/30/16 16:35	
Fluorene	ug/kg	ND	330	68.0	08/30/16 16:35	
Hexachloro-1,3-butadiene	ug/kg	ND	330	57.0	08/30/16 16:35	
Hexachlorobenzene	ug/kg	ND	330	42.0	08/30/16 16:35	
Hexachlorocyclopentadiene	ug/kg	ND	330	61.0	08/30/16 16:35	
Hexachloroethane	ug/kg	ND	330	87.0	08/30/16 16:35	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	68.0	08/30/16 16:35	
Isophorone	ug/kg	ND	330	74.0	08/30/16 16:35	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	63.0	08/30/16 16:35	
N-Nitrosodiphenylamine	ug/kg	ND	330	98.0	08/30/16 16:35	
Naphthalene	ug/kg	ND	330	81.0	08/30/16 16:35	
Nitrobenzene	ug/kg	ND	330	90.0	08/30/16 16:35	
Pentachlorophenol	ug/kg	ND	1650	60.0	08/30/16 16:35	
Phenanthrene	ug/kg	ND	330	55.0	08/30/16 16:35	
Phenol	ug/kg	ND	330	99.0	08/30/16 16:35	
Pyrene	ug/kg	ND	330	56.0	08/30/16 16:35	
2,4,6-Tribromophenol (S)	%	72	27-110		08/30/16 16:35	
2-Fluorobiphenyl (S)	%	70	30-110		08/30/16 16:35	
2-Fluorophenol (S)	%	66	13-110		08/30/16 16:35	
Nitrobenzene-d5 (S)	%	57	23-110		08/30/16 16:35	
Phenol-d6 (S)	%	70	22-110		08/30/16 16:35	
Terphenyl-d14 (S)	%	100	28-110		08/30/16 16:35	

LABORATORY CONTROL SAMPLE: 1810384

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/kg	1670	1270	76	36-124	
2,2'-Oxybis(1-chloropropane)	ug/kg	1670	1250	75	17-120	
2,3,4,6-Tetrachlorophenol	ug/kg	1670	2760	166	82-262	
2,4,5-Trichlorophenol	ug/kg	1670	1580	95	37-120	
2,4,6-Trichlorophenol	ug/kg	1670	1460	88	40-120	
2,4-Dichlorophenol	ug/kg	1670	1420	85	33-120	
2,4-Dimethylphenol	ug/kg	1670	1330	80	36-120	
2,4-Dinitrophenol	ug/kg	8330	3210	38	22-121	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

LABORATORY CONTROL SAMPLE: 1810384

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/kg	1670	1560	94	60-120	
2,6-Dinitrotoluene	ug/kg	1670	1640	99	54-120	
2-Chloronaphthalene	ug/kg	1670	1630	98	41-120	
2-Chlorophenol	ug/kg	1670	1370	82	39-120	
2-Methylnaphthalene	ug/kg	1670	1530	92	26-120	
2-Methylphenol(o-Cresol)	ug/kg	1670	1460	87	41-120	
2-Nitroaniline	ug/kg	3330	2680	81	45-120	
2-Nitrophenol	ug/kg	1670	1320	79	35-120	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	1250	75	35-120	
3,3'-Dichlorobenzidine	ug/kg	8330	2980	36	16-125	
3-Nitroaniline	ug/kg	3330	2740	82	45-120	
4,6-Dinitro-2-methylphenol	ug/kg	3330	2510	75	46-120	
4-Bromophenylphenyl ether	ug/kg	1670	1300	78	36-120	
4-Chloro-3-methylphenol	ug/kg	3330	3130	94	37-120	
4-Chloroaniline	ug/kg	3330	2650	80	35-120	
4-Chlorophenylphenyl ether	ug/kg	1670	1390	83	30-120	
4-Nitroaniline	ug/kg	3330	2820	84	48-120	
4-Nitrophenol	ug/kg	8330	6400	77	43-120	
Acenaphthene	ug/kg	1670	1300	78	46-120	
Acenaphthylene	ug/kg	1670	1490	89	46-120	
Acetophenone	ug/kg	1670	1340	80	39-120	
Anthracene	ug/kg	1670	1270	76	63-120	
Atrazine	ug/kg	1670	1270	76	70-156	
Benzaldehyde	ug/kg	1670	ND	17	10-120	
Benzo(a)anthracene	ug/kg	1670	1440	86	61-120	
Benzo(a)pyrene	ug/kg	1670	1430	86	59-120	
Benzo(b)fluoranthene	ug/kg	1670	1570	94	55-120	
Benzo(g,h,i)perylene	ug/kg	1670	1350	81	57-120	
Benzo(k)fluoranthene	ug/kg	1670	1500	90	56-120	
Biphenyl (Diphenyl)	ug/kg	1670	1220	73	40-120	
bis(2-Chloroethoxy)methane	ug/kg	1670	1240	74	21-120	
bis(2-Chloroethyl) ether	ug/kg	1670	1300	78	25-120	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1580	95	56-123	
Butylbenzylphthalate	ug/kg	1670	1650	99	57-120	
Caprolactam	ug/kg	1670	1490	89	23-163	
Carbazole	ug/kg	1670	1120	67	57-120	
Chrysene	ug/kg	1670	1430	86	64-120	
Di-n-butylphthalate	ug/kg	1670	1270	76	58-120	
Di-n-octylphthalate	ug/kg	1670	1440	87	47-121	
Dibenz(a,h)anthracene	ug/kg	1670	1300	78	56-120	
Dibenzofuran	ug/kg	1670	1240	74	43-120	
Diethylphthalate	ug/kg	1670	1440	86	55-120	
Dimethylphthalate	ug/kg	1670	1490	89	54-120	
Fluoranthene	ug/kg	1670	1170	70	61-120	
Fluorene	ug/kg	1670	1420	85	51-120	
Hexachloro-1,3-butadiene	ug/kg	1670	1220	73	22-120	
Hexachlorobenzene	ug/kg	1670	1270	76	53-120	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

LABORATORY CONTROL SAMPLE: 1810384

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachlorocyclopentadiene	ug/kg	1670	1140	68	18-150	
Hexachloroethane	ug/kg	1670	1260	75	39-120	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1350	81	58-120	
Isophorone	ug/kg	1670	1370	82	38-120	
N-Nitroso-di-n-propylamine	ug/kg	1670	1390	84	30-120	
N-Nitrosodiphenylamine	ug/kg	1670	1200	72	50-120	
Naphthalene	ug/kg	1670	1250	75	38-120	
Nitrobenzene	ug/kg	1670	1240	75	37-120	
Pentachlorophenol	ug/kg	8330	2440	29	10-120	
Phenanthrene	ug/kg	1670	1300	78	62-120	
Phenol	ug/kg	1670	1430	86	37-120	
Pyrene	ug/kg	1670	1470	88	63-120	
2,4,6-Tribromophenol (S)	%			76	27-110	
2-Fluorobiphenyl (S)	%			72	30-110	
2-Fluorophenol (S)	%			78	13-110	
Nitrobenzene-d5 (S)	%			68	23-110	
Phenol-d6 (S)	%			78	22-110	
Terphenyl-d14 (S)	%			88	28-110	

MATRIX SPIKE SAMPLE: 1810385

Parameter	Units	92309592001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/kg	ND	2160	1240	58	50-150	
2,2'-Oxybis(1-chloropropane)	ug/kg	ND	2160	1260	58	50-150	
2,3,4,6-Tetrachlorophenol	ug/kg	ND	2160	2450	114	50-150	
2,4,5-Trichlorophenol	ug/kg	ND	2160	1280	59	28-110	
2,4,6-Trichlorophenol	ug/kg	ND	2160	1180	55	17-117	
2,4-Dichlorophenol	ug/kg	ND	2160	1160	54	21-128	
2,4-Dimethylphenol	ug/kg	ND	2160	1170	54	10-120	
2,4-Dinitrophenol	ug/kg	ND	10800	828J	8	10-107	M1
2,4-Dinitrotoluene	ug/kg	ND	2160	1420	66	36-109	
2,6-Dinitrotoluene	ug/kg	ND	2160	1420	66	32-110	
2-Chloronaphthalene	ug/kg	ND	2160	1490	69	30-107	
2-Chlorophenol	ug/kg	ND	2160	1310	61	14-106	
2-Methylnaphthalene	ug/kg	ND	2160	1220	56	10-135	
2-Methylphenol(o-Cresol)	ug/kg	ND	2160	1270	59	10-124	
2-Nitroaniline	ug/kg	ND	4300	2120J	49	26-116	
2-Nitrophenol	ug/kg	ND	2160	1230	57	28-103	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	2160	1010	47	10-109	
3,3'-Dichlorobenzidine	ug/kg	ND	10800	2360	22	10-150	
3-Nitroaniline	ug/kg	ND	4300	2210	51	22-110	
4,6-Dinitro-2-methylphenol	ug/kg	ND	4300	1790	42	13-121	
4-Bromophenylphenyl ether	ug/kg	ND	2160	1130	52	31-109	
4-Chloro-3-methylphenol	ug/kg	ND	4300	2530	59	13-128	
4-Chloroaniline	ug/kg	ND	4300	2040J	47	18-102	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

MATRIX SPIKE SAMPLE: 1810385

Parameter	Units	92309592001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Chlorophenylphenyl ether	ug/kg	ND	2160	1150	53	29-112	
4-Nitroaniline	ug/kg	ND	4300	2210	51	16-111	
4-Nitrophenol	ug/kg	ND	10800	5950	55	14-135	
Acenaphthene	ug/kg	ND	2160	1140	53	26-114	
Acenaphthylene	ug/kg	ND	2160	1230	57	32-108	
Acetophenone	ug/kg	ND	2160	1210	56	50-150	
Anthracene	ug/kg	ND	2160	1040	48	32-111	
Atrazine	ug/kg	ND	2160	1260	58	50-150	
Benzaldehyde	ug/kg	ND	2160	506J	23	50-150	M1
Benzo(a)anthracene	ug/kg	ND	2160	1200	55	25-117	
Benzo(a)pyrene	ug/kg	ND	2160	1130	53	25-106	
Benzo(b)fluoranthene	ug/kg	ND	2160	1190	55	24-110	
Benzo(g,h,i)perylene	ug/kg	ND	2160	1070	50	19-112	
Benzo(k)fluoranthene	ug/kg	ND	2160	1190	55	24-114	
Biphenyl (Diphenyl)	ug/kg	ND	2160	1050	49	50-150	M1
bis(2-Chloroethoxy)methane	ug/kg	ND	2160	1130	53	13-119	
bis(2-Chloroethyl) ether	ug/kg	ND	2160	1300	61	10-134	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	2160	1270	59	10-125	
Butylbenzylphthalate	ug/kg	ND	2160	1450	67	18-110	
Caprolactam	ug/kg	ND	2160	1020	48	50-150	M1
Carbazole	ug/kg	ND	2160	1030	48	50-150	M1
Chrysene	ug/kg	ND	2160	1200	56	30-110	
Di-n-butylphthalate	ug/kg	ND	2160	1100	51	19-112	
Di-n-octylphthalate	ug/kg	ND	2160	1040	48	17-105	
Dibenz(a,h)anthracene	ug/kg	ND	2160	1020	47	23-111	
Dibenzofuran	ug/kg	ND	2160	1110	52	35-103	
Diethylphthalate	ug/kg	ND	2160	1220	57	27-113	
Dimethylphthalate	ug/kg	ND	2160	1170	54	26-111	
Fluoranthene	ug/kg	ND	2160	1180	55	33-109	
Fluorene	ug/kg	ND	2160	1150	53	32-113	
Hexachloro-1,3-butadiene	ug/kg	ND	2160	1300	60	16-116	
Hexachlorobenzene	ug/kg	ND	2160	1110	52	27-120	
Hexachlorocyclopentadiene	ug/kg	ND	2160	998	46	10-108	
Hexachloroethane	ug/kg	ND	2160	1390	65	10-117	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	2160	1070	50	10-122	
Isophorone	ug/kg	ND	2160	1240	58	28-114	
N-Nitroso-di-n-propylamine	ug/kg	ND	2160	1200	56	27-113	
N-Nitrosodiphenylamine	ug/kg	ND	2160	1060	49	10-128	
Naphthalene	ug/kg	ND	2160	1240	57	25-110	
Nitrobenzene	ug/kg	ND	2160	1250	58	18-114	
Pentachlorophenol	ug/kg	ND	10800	2160	20	10-122	
Phenanthrene	ug/kg	ND	2160	1100	51	30-114	
Phenol	ug/kg	ND	2160	1230	57	11-102	
Pyrene	ug/kg	ND	2160	1290	60	25-116	
2,4,6-Tribromophenol (S)	%				51	27-110	
2-Fluorobiphenyl (S)	%				44	30-110	
2-Fluorophenol (S)	%				54	13-110	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

MATRIX SPIKE SAMPLE: 1810385

Parameter	Units	92309592001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrobenzene-d5 (S)	%				50	23-110	
Phenol-d6 (S)	%				49	22-110	
Terphenyl-d14 (S)	%				44	28-110	

SAMPLE DUPLICATE: 1810386

Parameter	Units	92309592006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/kg	ND	ND		30	
2,2'-Oxybis(1-chloropropane)	ug/kg	ND	ND		30	
2,3,4,6-Tetrachlorophenol	ug/kg	ND	ND		30	
2,4,5-Trichlorophenol	ug/kg	ND	ND		30	
2,4,6-Trichlorophenol	ug/kg	ND	ND		30	
2,4-Dichlorophenol	ug/kg	ND	ND		30	
2,4-Dimethylphenol	ug/kg	ND	ND		30	
2,4-Dinitrophenol	ug/kg	ND	ND		30	
2,4-Dinitrotoluene	ug/kg	ND	ND		30	
2,6-Dinitrotoluene	ug/kg	ND	ND		30	
2-Chloronaphthalene	ug/kg	ND	ND		30	
2-Chlorophenol	ug/kg	ND	ND		30	
2-Methylnaphthalene	ug/kg	ND	ND		30	
2-Methylphenol(o-Cresol)	ug/kg	ND	ND		30	
2-Nitroaniline	ug/kg	ND	ND		30	
2-Nitrophenol	ug/kg	ND	ND		30	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	ND		30	
3,3'-Dichlorobenzidine	ug/kg	ND	ND		30	
3-Nitroaniline	ug/kg	ND	ND		30	
4,6-Dinitro-2-methylphenol	ug/kg	ND	ND		30	
4-Bromophenylphenyl ether	ug/kg	ND	ND		30	
4-Chloro-3-methylphenol	ug/kg	ND	ND		30	
4-Chloroaniline	ug/kg	ND	ND		30	
4-Chlorophenylphenyl ether	ug/kg	ND	ND		30	
4-Nitroaniline	ug/kg	ND	ND		30	
4-Nitrophenol	ug/kg	ND	ND		30	
Acenaphthene	ug/kg	ND	ND		30	
Acenaphthylene	ug/kg	ND	ND		30	
Acetophenone	ug/kg	ND	ND		30	
Anthracene	ug/kg	ND	ND		30	
Atrazine	ug/kg	ND	ND		30	
Benzaldehyde	ug/kg	ND	ND		30	
Benzo(a)anthracene	ug/kg	ND	ND		30	
Benzo(a)pyrene	ug/kg	ND	ND		30	
Benzo(b)fluoranthene	ug/kg	ND	ND		30	
Benzo(g,h,i)perylene	ug/kg	ND	ND		30	
Benzo(k)fluoranthene	ug/kg	ND	ND		30	
Biphenyl (Diphenyl)	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

SAMPLE DUPLICATE: 1810386

Parameter	Units	92309592006 Result	Dup Result	RPD	Max RPD	Qualifiers
bis(2-Chloroethoxy)methane	ug/kg	ND	ND		30	
bis(2-Chloroethyl) ether	ug/kg	ND	ND		30	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	ND		30	
Butylbenzylphthalate	ug/kg	ND	ND		30	
Caprolactam	ug/kg	ND	ND		30	
Carbazole	ug/kg	ND	ND		30	
Chrysene	ug/kg	ND	ND		30	
Di-n-butylphthalate	ug/kg	ND	ND		30	
Di-n-octylphthalate	ug/kg	ND	ND		30	
Dibenz(a,h)anthracene	ug/kg	ND	ND		30	
Dibenzofuran	ug/kg	ND	ND		30	
Diethylphthalate	ug/kg	ND	ND		30	
Dimethylphthalate	ug/kg	ND	ND		30	
Fluoranthene	ug/kg	ND	ND		30	
Fluorene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	
Hexachlorobenzene	ug/kg	ND	ND		30	
Hexachlorocyclopentadiene	ug/kg	ND	ND		30	
Hexachloroethane	ug/kg	ND	ND		30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	ND		30	
Isophorone	ug/kg	ND	ND		30	
N-Nitroso-di-n-propylamine	ug/kg	ND	ND		30	
N-Nitrosodiphenylamine	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
Nitrobenzene	ug/kg	ND	ND		30	
Pentachlorophenol	ug/kg	ND	ND		30	
Phenanthrene	ug/kg	ND	ND		30	
Phenol	ug/kg	ND	ND		30	
Pyrene	ug/kg	ND	ND		30	
2,4,6-Tribromophenol (S)	%	41	52	22		
2-Fluorobiphenyl (S)	%	39	37	4		
2-Fluorophenol (S)	%	44	46	4		
Nitrobenzene-d5 (S)	%	40	40	1		
Phenol-d6 (S)	%	41	43	5		
Terphenyl-d14 (S)	%	52	61	15		

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326328 Analysis Method: EPA 8270
QC Batch Method: EPA 3510 Analysis Description: 8270 Water MSSV
Associated Lab Samples: 92310272008

METHOD BLANK: 1808052 Matrix: Water
Associated Lab Samples: 92310272008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	ND	10.0	1.7	08/26/16 12:07	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	1.6	08/26/16 12:07	
2,3,4,6-Tetrachlorophenol	ug/L	ND	10.0	2.3	08/26/16 12:07	
2,4,5-Trichlorophenol	ug/L	ND	10.0	2.2	08/26/16 12:07	
2,4,6-Trichlorophenol	ug/L	ND	10.0	1.9	08/26/16 12:07	
2,4-Dichlorophenol	ug/L	ND	10.0	1.7	08/26/16 12:07	
2,4-Dimethylphenol	ug/L	ND	10.0	2.2	08/26/16 12:07	
2,4-Dinitrophenol	ug/L	ND	50.0	6.5	08/26/16 12:07	
2,4-Dinitrotoluene	ug/L	ND	10.0	1.2	08/26/16 12:07	
2,6-Dinitrotoluene	ug/L	ND	10.0	1.7	08/26/16 12:07	
2-Chloronaphthalene	ug/L	ND	10.0	2.2	08/26/16 12:07	
2-Chlorophenol	ug/L	ND	10.0	1.5	08/26/16 12:07	
2-Methylnaphthalene	ug/L	ND	10.0	0.28	08/26/16 12:07	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	1.7	08/26/16 12:07	
2-Nitroaniline	ug/L	ND	50.0	2.8	08/26/16 12:07	
2-Nitrophenol	ug/L	ND	10.0	1.7	08/26/16 12:07	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	1.7	08/26/16 12:07	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	1.4	08/26/16 12:07	
3-Nitroaniline	ug/L	ND	50.0	2.4	08/26/16 12:07	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	1.7	08/26/16 12:07	
4-Bromophenylphenyl ether	ug/L	ND	10.0	1.3	08/26/16 12:07	
4-Chloro-3-methylphenol	ug/L	ND	20.0	4.2	08/26/16 12:07	
4-Chloroaniline	ug/L	ND	20.0	3.4	08/26/16 12:07	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	2.1	08/26/16 12:07	
4-Nitroaniline	ug/L	ND	20.0	2.5	08/26/16 12:07	
4-Nitrophenol	ug/L	ND	50.0	5.8	08/26/16 12:07	
Acenaphthene	ug/L	ND	10.0	0.25	08/26/16 12:07	
Acenaphthylene	ug/L	ND	10.0	0.21	08/26/16 12:07	
Acetophenone	ug/L	ND	10.0	2.0	08/26/16 12:07	
Anthracene	ug/L	ND	10.0	0.14	08/26/16 12:07	
Atrazine	ug/L	ND	20.0	1.7	08/26/16 12:07	
Benzaldehyde	ug/L	ND	20.0	4.7	08/26/16 12:07	
Benzo(a)anthracene	ug/L	ND	10.0	0.33	08/26/16 12:07	
Benzo(a)pyrene	ug/L	ND	10.0	0.30	08/26/16 12:07	
Benzo(b)fluoranthene	ug/L	ND	10.0	0.28	08/26/16 12:07	
Benzo(g,h,i)perylene	ug/L	ND	10.0	0.38	08/26/16 12:07	
Benzo(k)fluoranthene	ug/L	ND	10.0	0.43	08/26/16 12:07	
Biphenyl (Diphenyl)	ug/L	ND	10.0	1.9	08/26/16 12:07	
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	1.7	08/26/16 12:07	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	1.5	08/26/16 12:07	
bis(2-Ethylhexyl)phthalate	ug/L	ND	6.0	0.85	08/26/16 12:07	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

METHOD BLANK: 1808052 Matrix: Water
Associated Lab Samples: 92310272008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Butylbenzylphthalate	ug/L	ND	10.0	0.75	08/26/16 12:07	
Caprolactam	ug/L	ND	10.0	1.8	08/26/16 12:07	
Carbazole	ug/L	ND	10.0	0.73	08/26/16 12:07	
Chrysene	ug/L	ND	10.0	0.21	08/26/16 12:07	
Di-n-butylphthalate	ug/L	ND	10.0	1.1	08/26/16 12:07	
Di-n-octylphthalate	ug/L	ND	10.0	0.86	08/26/16 12:07	
Dibenz(a,h)anthracene	ug/L	ND	10.0	0.55	08/26/16 12:07	
Dibenzofuran	ug/L	ND	10.0	1.8	08/26/16 12:07	
Diethylphthalate	ug/L	ND	10.0	1.3	08/26/16 12:07	
Dimethylphthalate	ug/L	ND	10.0	1.5	08/26/16 12:07	
Fluoranthene	ug/L	ND	10.0	0.21	08/26/16 12:07	
Fluorene	ug/L	ND	10.0	0.21	08/26/16 12:07	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	1.8	08/26/16 12:07	
Hexachlorobenzene	ug/L	ND	10.0	1.1	08/26/16 12:07	
Hexachlorocyclopentadiene	ug/L	ND	10.0	1.8	08/26/16 12:07	
Hexachloroethane	ug/L	ND	10.0	1.5	08/26/16 12:07	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	0.29	08/26/16 12:07	
Isophorone	ug/L	ND	10.0	1.8	08/26/16 12:07	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	2.1	08/26/16 12:07	
N-Nitrosodiphenylamine	ug/L	ND	10.0	1.3	08/26/16 12:07	
Naphthalene	ug/L	ND	10.0	0.34	08/26/16 12:07	
Nitrobenzene	ug/L	ND	10.0	1.7	08/26/16 12:07	
Pentachlorophenol	ug/L	ND	25.0	2.3	08/26/16 12:07	
Phenanthrene	ug/L	ND	10.0	0.22	08/26/16 12:07	
Phenol	ug/L	ND	10.0	1.7	08/26/16 12:07	
Pyrene	ug/L	ND	10.0	0.19	08/26/16 12:07	
2,4,6-Tribromophenol (S)	%	88	27-110		08/26/16 12:07	
2-Fluorobiphenyl (S)	%	75	27-110		08/26/16 12:07	
2-Fluorophenol (S)	%	45	12-110		08/26/16 12:07	
Nitrobenzene-d5 (S)	%	77	21-110		08/26/16 12:07	
Phenol-d6 (S)	%	32	10-110		08/26/16 12:07	
Terphenyl-d14 (S)	%	102	31-107		08/26/16 12:07	

LABORATORY CONTROL SAMPLE: 1808053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	50	36.2	72	16-129	
2,2'-Oxybis(1-chloropropane)	ug/L	50	45.6	91	18-120	
2,3,4,6-Tetrachlorophenol	ug/L	50	93.8	188	54-276	
2,4,5-Trichlorophenol	ug/L	50	50.0	100	43-113	
2,4,6-Trichlorophenol	ug/L	50	48.1	96	42-120	
2,4-Dichlorophenol	ug/L	50	46.4	93	30-120	
2,4-Dimethylphenol	ug/L	50	44.0	88	29-111	
2,4-Dinitrophenol	ug/L	250	131	52	19-132	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

LABORATORY CONTROL SAMPLE: 1808053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/L	50	53.5	107	58-128	
2,6-Dinitrotoluene	ug/L	50	54.9	110	54-129	
2-Chloronaphthalene	ug/L	50	50.4	101	43-117	
2-Chlorophenol	ug/L	50	44.7	89	37-120	
2-Methylnaphthalene	ug/L	50	40.5	81	33-120	
2-Methylphenol(o-Cresol)	ug/L	50	41.4	83	31-120	
2-Nitroaniline	ug/L	100	83.8	84	48-121	
2-Nitrophenol	ug/L	50	46.4	93	25-116	
3&4-Methylphenol(m&p Cresol)	ug/L	50	31.9	64	23-120	
3,3'-Dichlorobenzidine	ug/L	250	93.5	37	10-154	
3-Nitroaniline	ug/L	100	90.3	90	43-115	
4,6-Dinitro-2-methylphenol	ug/L	100	89.0	89	44-124	
4-Bromophenylphenyl ether	ug/L	50	48.1	96	34-113	
4-Chloro-3-methylphenol	ug/L	100	96.6	97	31-110	
4-Chloroaniline	ug/L	100	86.2	86	20-120	
4-Chlorophenylphenyl ether	ug/L	50	47.2	94	34-116	
4-Nitroaniline	ug/L	100	86.5	86	46-128	
4-Nitrophenol	ug/L	250	101	40	11-120	
Acenaphthene	ug/L	50	43.8	88	48-114	
Acenaphthylene	ug/L	50	46.8	94	48-112	
Acetophenone	ug/L	50	47.9	96	24-120	
Anthracene	ug/L	50	45.3	91	57-118	
Atrazine	ug/L	50	43.3	87	33-160	
Benzaldehyde	ug/L	50	59.7	119	10-120	
Benzo(a)anthracene	ug/L	50	46.1	92	56-121	
Benzo(a)pyrene	ug/L	50	46.5	93	55-127	
Benzo(b)fluoranthene	ug/L	50	47.8	96	53-128	
Benzo(g,h,i)perylene	ug/L	50	43.3	87	54-125	
Benzo(k)fluoranthene	ug/L	50	48.1	96	51-123	
Biphenyl (Diphenyl)	ug/L	50	38.7	77	38-120	
bis(2-Chloroethoxy)methane	ug/L	50	43.7	87	32-120	
bis(2-Chloroethyl) ether	ug/L	50	46.6	93	33-111	
bis(2-Ethylhexyl)phthalate	ug/L	50	55.7	111	50-145	
Butylbenzylphthalate	ug/L	50	57.2	114	54-138	
Caprolactam	ug/L	50	15.2	30	10-115	
Carbazole	ug/L	50	42.9	86	59-119	
Chrysene	ug/L	50	44.5	89	58-127	
Di-n-butylphthalate	ug/L	50	50.8	102	56-125	
Di-n-octylphthalate	ug/L	50	49.6	99	50-134	
Dibenz(a,h)anthracene	ug/L	50	42.2	84	53-129	
Dibenzofuran	ug/L	50	42.5	85	45-120	
Diethylphthalate	ug/L	50	48.7	97	53-120	
Dimethylphthalate	ug/L	50	45.8	92	55-116	
Fluoranthene	ug/L	50	43.6	87	57-125	
Fluorene	ug/L	50	46.3	93	53-118	
Hexachloro-1,3-butadiene	ug/L	50	27.1	54	23-120	
Hexachlorobenzene	ug/L	50	45.4	91	49-116	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

LABORATORY CONTROL SAMPLE: 1808053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachlorocyclopentadiene	ug/L	50	23.7	47	26-158	
Hexachloroethane	ug/L	50	28.8	58	30-114	
Indeno(1,2,3-cd)pyrene	ug/L	50	43.5	87	55-128	
Isophorone	ug/L	50	48.8	98	31-118	
N-Nitroso-di-n-propylamine	ug/L	50	54.6	109	32-119	
N-Nitrosodiphenylamine	ug/L	50	49.4	99	43-120	
Naphthalene	ug/L	50	38.4	77	32-120	
Nitrobenzene	ug/L	50	44.7	89	33-110	
Pentachlorophenol	ug/L	250	88.4	35	10-137	
Phenanthrene	ug/L	50	44.1	88	57-117	
Phenol	ug/L	50	23.0	46	10-120	
Pyrene	ug/L	50	49.5	99	55-122	
2,4,6-Tribromophenol (S)	%			95	27-110	
2-Fluorobiphenyl (S)	%			81	27-110	
2-Fluorophenol (S)	%			52	12-110	
Nitrobenzene-d5 (S)	%			82	21-110	
Phenol-d6 (S)	%			37	10-110	
Terphenyl-d14 (S)	%			102	31-107	

MATRIX SPIKE SAMPLE: 1808054

Parameter	Units	92310069002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	ND	50	36.6	73	50-150	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	50	42.6	85	50-150	
2,3,4,6-Tetrachlorophenol	ug/L	ND	50	96.8	194	50-150	M1
2,4,5-Trichlorophenol	ug/L	ND	50	51.6	103	19-105	
2,4,6-Trichlorophenol	ug/L	ND	50	49.1	98	13-108	
2,4-Dichlorophenol	ug/L	ND	50	46.4	93	29-111	
2,4-Dimethylphenol	ug/L	ND	50	45.7	91	21-103	
2,4-Dinitrophenol	ug/L	ND	250	168	67	10-109	
2,4-Dinitrotoluene	ug/L	ND	50	53.3	107	27-104	M1
2,6-Dinitrotoluene	ug/L	ND	50	55.8	112	28-101	M1
2-Chloronaphthalene	ug/L	ND	50	56.4	113	14-102	M1
2-Chlorophenol	ug/L	ND	50	41.4	83	16-110	
2-Methylnaphthalene	ug/L	ND	50	47.0	94	13-110	
2-Methylphenol(o-Cresol)	ug/L	ND	50	40.1	80	19-110	
2-Nitroaniline	ug/L	ND	100	82.2	82	26-103	
2-Nitrophenol	ug/L	ND	50	47.7	95	20-110	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	50	31.0	62	20-110	
3,3'-Dichlorobenzidine	ug/L	ND	250	103	41	25-112	
3-Nitroaniline	ug/L	ND	100	89.2	89	29-110	
4,6-Dinitro-2-methylphenol	ug/L	ND	100	110	110	10-117	
4-Bromophenylphenyl ether	ug/L	ND	50	55.3	111	20-105	M1
4-Chloro-3-methylphenol	ug/L	ND	100	98.6	99	22-110	
4-Chloroaniline	ug/L	ND	100	84.0	84	20-100	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

MATRIX SPIKE SAMPLE: 1808054

Parameter	Units	92310069002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Chlorophenylphenyl ether	ug/L	ND	50	48.9	98	19-102	
4-Nitroaniline	ug/L	ND	100	90.9	91	29-110	
4-Nitrophenol	ug/L	ND	250	115	46	10-110	
Acenaphthene	ug/L	ND	50	45.8	92	17-100	
Acenaphthylene	ug/L	ND	50	48.4	97	21-100	
Acetophenone	ug/L	ND	50	44.4	89	50-150	
Anthracene	ug/L	ND	50	46.5	93	24-109	
Atrazine	ug/L	ND	50	47.3	95	50-150	
Benzaldehyde	ug/L	ND	50	28.2	56	50-150	
Benzo(a)anthracene	ug/L	ND	50	51.4	103	22-117	
Benzo(a)pyrene	ug/L	ND	50	51.2	102	23-104	
Benzo(b)fluoranthene	ug/L	ND	50	52.4	105	23-103	M1
Benzo(g,h,i)perylene	ug/L	ND	50	48.9	98	18-111	
Benzo(k)fluoranthene	ug/L	ND	50	52.4	105	22-113	
Biphenyl (Diphenyl)	ug/L	ND	50	41.1	82	50-150	
bis(2-Chloroethoxy)methane	ug/L	ND	50	44.4	89	22-110	
bis(2-Chloroethyl) ether	ug/L	ND	50	44.8	90	16-110	
bis(2-Ethylhexyl)phthalate	ug/L	ND	50	57.9	116	23-102	M1
Butylbenzylphthalate	ug/L	ND	50	56.1	112	25-110	M1
Caprolactam	ug/L	4.0J	50	24.8	41	50-150	M1
Carbazole	ug/L	ND	50	44.4	89	50-150	
Chrysene	ug/L	ND	50	49.3	99	23-115	
Di-n-butylphthalate	ug/L	ND	50	50.7	101	26-110	
Di-n-octylphthalate	ug/L	ND	50	52.6	105	22-110	
Dibenz(a,h)anthracene	ug/L	ND	50	47.1	94	21-112	
Dibenzofuran	ug/L	ND	50	43.4	87	19-102	
Diethylphthalate	ug/L	ND	50	48.5	97	29-110	
Dimethylphthalate	ug/L	ND	50	46.0	92	27-110	
Fluoranthene	ug/L	1.1J	50	47.9	94	23-112	
Fluorene	ug/L	ND	50	47.8	96	22-104	
Hexachloro-1,3-butadiene	ug/L	ND	50	41.5	83	10-110	
Hexachlorobenzene	ug/L	ND	50	53.7	107	21-116	
Hexachlorocyclopentadiene	ug/L	ND	50	35.5	71	10-110	
Hexachloroethane	ug/L	ND	50	38.1	76	10-110	
Indeno(1,2,3-cd)pyrene	ug/L	ND	50	49.4	99	20-113	
Isophorone	ug/L	ND	50	55.7	111	50-150	
N-Nitroso-di-n-propylamine	ug/L	ND	50	46.8	94	21-105	
N-Nitrosodiphenylamine	ug/L	ND	50	50.7	101	23-107	
Naphthalene	ug/L	ND	50	43.1	86	10-110	
Nitrobenzene	ug/L	ND	50	46.8	94	20-110	
Pentachlorophenol	ug/L	ND	250	101	40	10-118	
Phenanthrene	ug/L	ND	50	45.9	92	24-106	
Phenol	ug/L	ND	50	22.4	45	12-110	
Pyrene	ug/L	ND	50	51.5	103	24-114	
2,4,6-Tribromophenol (S)	%				105	27-110	
2-Fluorobiphenyl (S)	%				84	27-110	
2-Fluorophenol (S)	%				47	12-110	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

MATRIX SPIKE SAMPLE: 1808054

Parameter	Units	92310069002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrobenzene-d5 (S)	%				88	21-110	
Phenol-d6 (S)	%				37	10-110	
Terphenyl-d14 (S)	%				89	31-107	

SAMPLE DUPLICATE: 1808055

Parameter	Units	92310069003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	ND	ND		30	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	ND		30	
2,3,4,6-Tetrachlorophenol	ug/L	ND	ND		30	
2,4,5-Trichlorophenol	ug/L	ND	ND		30	
2,4,6-Trichlorophenol	ug/L	ND	ND		30	
2,4-Dichlorophenol	ug/L	ND	ND		30	
2,4-Dimethylphenol	ug/L	ND	ND		30	
2,4-Dinitrophenol	ug/L	ND	ND		30	
2,4-Dinitrotoluene	ug/L	ND	ND		30	
2,6-Dinitrotoluene	ug/L	ND	ND		30	
2-Chloronaphthalene	ug/L	ND	ND		30	
2-Chlorophenol	ug/L	ND	ND		30	
2-Methylnaphthalene	ug/L	ND	ND		30	
2-Methylphenol(o-Cresol)	ug/L	ND	ND		30	
2-Nitroaniline	ug/L	ND	ND		30	
2-Nitrophenol	ug/L	ND	ND		30	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	ND		30	
3,3'-Dichlorobenzidine	ug/L	ND	ND		30	
3-Nitroaniline	ug/L	ND	ND		30	
4,6-Dinitro-2-methylphenol	ug/L	ND	ND		30	
4-Bromophenylphenyl ether	ug/L	ND	ND		30	
4-Chloro-3-methylphenol	ug/L	ND	ND		30	
4-Chloroaniline	ug/L	ND	ND		30	
4-Chlorophenylphenyl ether	ug/L	ND	ND		30	
4-Nitroaniline	ug/L	ND	ND		30	
4-Nitrophenol	ug/L	ND	ND		30	
Acenaphthene	ug/L	ND	ND		30	
Acenaphthylene	ug/L	ND	ND		30	
Acetophenone	ug/L	ND	ND		30	
Anthracene	ug/L	ND	ND		30	
Atrazine	ug/L	ND	ND		30	
Benzaldehyde	ug/L	ND	ND		30	
Benzo(a)anthracene	ug/L	ND	ND		30	
Benzo(a)pyrene	ug/L	ND	ND		30	
Benzo(b)fluoranthene	ug/L	ND	ND		30	
Benzo(g,h,i)perylene	ug/L	ND	ND		30	
Benzo(k)fluoranthene	ug/L	ND	ND		30	
Biphenyl (Diphenyl)	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

SAMPLE DUPLICATE: 1808055

Parameter	Units	92310069003 Result	Dup Result	RPD	Max RPD	Qualifiers
bis(2-Chloroethoxy)methane	ug/L	ND	ND		30	
bis(2-Chloroethyl) ether	ug/L	ND	ND		30	
bis(2-Ethylhexyl)phthalate	ug/L	ND	ND		30	
Butylbenzylphthalate	ug/L	ND	ND		30	
Caprolactam	ug/L	4.5J	8.6J		30	
Carbazole	ug/L	ND	ND		30	
Chrysene	ug/L	ND	ND		30	
Di-n-butylphthalate	ug/L	ND	ND		30	
Di-n-octylphthalate	ug/L	ND	ND		30	
Dibenz(a,h)anthracene	ug/L	ND	ND		30	
Dibenzofuran	ug/L	ND	ND		30	
Diethylphthalate	ug/L	ND	ND		30	
Dimethylphthalate	ug/L	ND	ND		30	
Fluoranthene	ug/L	ND	ND		30	
Fluorene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Hexachlorobenzene	ug/L	ND	ND		30	
Hexachlorocyclopentadiene	ug/L	ND	ND		30	
Hexachloroethane	ug/L	ND	ND		30	
Indeno(1,2,3-cd)pyrene	ug/L	ND	ND		30	
Isophorone	ug/L	ND	ND		30	
N-Nitroso-di-n-propylamine	ug/L	ND	ND		30	
N-Nitrosodiphenylamine	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
Nitrobenzene	ug/L	ND	ND		30	
Pentachlorophenol	ug/L	ND	ND		30	
Phenanthrene	ug/L	ND	ND		30	
Phenol	ug/L	ND	ND		30	
Pyrene	ug/L	ND	ND		30	
2,4,6-Tribromophenol (S)	%	78	89	13		
2-Fluorobiphenyl (S)	%	65	81	21		
2-Fluorophenol (S)	%	43	43	1		
Nitrobenzene-d5 (S)	%	68	76	11		
Phenol-d6 (S)	%	32	32	1		
Terphenyl-d14 (S)	%	94	85	9		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 326470 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006, 92310272007

SAMPLE DUPLICATE: 1808649

Parameter	Units	92310190001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.7	15.8	0	25	

SAMPLE DUPLICATE: 1808650

Parameter	Units	92310272007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.2	23.2	0	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 327093 Analysis Method: EPA 7196
QC Batch Method: EPA 7196 Modified Analysis Description: 7196 Chromium, Hexavalent
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006, 92310272007

METHOD BLANK: 1812328 Matrix: Solid
Associated Lab Samples: 92310272001, 92310272002, 92310272003, 92310272004, 92310272005, 92310272006, 92310272007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	mg/kg	ND	5.0	5.0	09/01/16 17:52	

LABORATORY CONTROL SAMPLE: 1812329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	25	24.6	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1812330 1812331

Parameter	Units	92310078001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/kg	ND	30	30	22.1	22.3	70	71	75-125	1	20	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1812332 1812333

Parameter	Units	92310272005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/kg	ND	35.4	35.4	35.3	35.4	100	100	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

QC Batch: 327610 Analysis Method: EPA 7196
QC Batch Method: EPA 7196 Analysis Description: 7196 Chromium, Hexavalent
Associated Lab Samples: 92310272008

METHOD BLANK: 1815202 Matrix: Water
Associated Lab Samples: 92310272008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	ND	0.010	0.010	09/08/16 06:44	

LABORATORY CONTROL SAMPLE: 1815203

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.25	0.24	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1815204 1815205

Parameter	Units	92310272008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/L	ND	.25	.25	0.26	0.24	100	92	75-125	7	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

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.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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.

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

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.
HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
N	Tentatively identified compound (TIC) based on mass spectral library search. Result is estimated.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92310272001	**Sed-1**	EPA 3050	326482	EPA 6010	326573
92310272002	**Sed-2**	EPA 3050	326482	EPA 6010	326573
92310272003	**Sed-3**	EPA 3050	326482	EPA 6010	326573
92310272004	**Sed-4**	EPA 3050	326482	EPA 6010	326573
92310272005	**Sed-5**	EPA 3050	326482	EPA 6010	326573
92310272006	**Sed-6**	EPA 3050	326482	EPA 6010	326573
92310272007	**Sed-3-Dup**	EPA 3050	326482	EPA 6010	326573
92310272008	**EB-01-082516**	EPA 3010A	326464	EPA 6010	326584
92310272008	**EB-01-082516**	EPA 7470	326747	EPA 7470	326765
92310272001	**Sed-1**	EPA 7471	326750	EPA 7471	326904
92310272002	**Sed-2**	EPA 7471	326750	EPA 7471	326904
92310272003	**Sed-3**	EPA 7471	326750	EPA 7471	326904
92310272004	**Sed-4**	EPA 7471	326750	EPA 7471	326904
92310272005	**Sed-5**	EPA 7471	326750	EPA 7471	326904
92310272006	**Sed-6**	EPA 7471	326812	EPA 7471	326906
92310272007	**Sed-3-Dup**	EPA 7471	326812	EPA 7471	326906
92310272001	**Sed-1**	EPA 3546	326811	EPA 8270	326929
92310272002	**Sed-2**	EPA 3546	326811	EPA 8270	326929
92310272003	**Sed-3**	EPA 3546	326811	EPA 8270	326929
92310272004	**Sed-4**	EPA 3546	326811	EPA 8270	326929
92310272005	**Sed-5**	EPA 3546	326811	EPA 8270	326929
92310272006	**Sed-6**	EPA 3546	326811	EPA 8270	326929
92310272007	**Sed-3-Dup**	EPA 3546	326811	EPA 8270	326929
92310272008	**EB-01-082516**	EPA 3510	326328	EPA 8270	326515
92310272001	**Sed-1**	EPA 8260B Mod.	326454		
92310272002	**Sed-2**	EPA 8260B Mod.	326454		
92310272003	**Sed-3**	EPA 8260B Mod.	326454		
92310272004	**Sed-4**	EPA 8260B Mod.	326454		
92310272005	**Sed-5**	EPA 8260B Mod.	326454		
92310272006	**Sed-6**	EPA 8260B Mod.	326454		
92310272007	**Sed-3-Dup**	EPA 8260B Mod.	326454		
92310272008	**EB-01-082516**	EPA 8260	326529		
92310272009	**Trip Blank 1**	EPA 8260	326529		
92310272008	**EB-01-082516**	EPA 8260B Mod.	326694		
92310272001	**Sed-1**	EPA 8260	326487		
92310272002	**Sed-2**	EPA 8260	326487		
92310272003	**Sed-3**	EPA 8260	326487		
92310272004	**Sed-4**	EPA 8260	326487		
92310272005	**Sed-5**	EPA 8260	326487		
92310272006	**Sed-6**	EPA 8260	326487		
92310272007	**Sed-3-Dup**	EPA 8260	326488		
92310272001	**Sed-1**	ASTM D2974-87	326470		
92310272002	**Sed-2**	ASTM D2974-87	326470		

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NCDOT 1-5000 WBS# 41153.1.1
Pace Project No.: 92310272

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92310272003	**Sed-3**	ASTM D2974-87	326470		
92310272004	**Sed-4**	ASTM D2974-87	326470		
92310272005	**Sed-5**	ASTM D2974-87	326470		
92310272006	**Sed-6**	ASTM D2974-87	326470		
92310272007	**Sed-3-Dup**	ASTM D2974-87	326470		
92310272001	**Sed-1**	EPA 7196 Modified	327093	EPA 7196	327128
92310272002	**Sed-2**	EPA 7196 Modified	327093	EPA 7196	327128
92310272003	**Sed-3**	EPA 7196 Modified	327093	EPA 7196	327128
92310272004	**Sed-4**	EPA 7196 Modified	327093	EPA 7196	327128
92310272005	**Sed-5**	EPA 7196 Modified	327093	EPA 7196	327128
92310272006	**Sed-6**	EPA 7196 Modified	327093	EPA 7196	327128
92310272007	**Sed-3-Dup**	EPA 7196 Modified	327093	EPA 7196	327128
92310272008	**EB-01-082516**	EPA 7196	327610		

Pace Analytical	Sample Condition Upon Receipt(SCUR)	Page 1 of 2
	Document No.: F-CHR-CS-003-rev.19	Issuing Authority: Pace Huntersville Quality Office

Page 2 of 2 for Internal Use ONLY

Sample Condition Upon Receipt

Client Name: AECOM

Project #: WO# : 92310272

92310272

Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Pace ☐ Other:____ ☑ Client

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other:____

Date/Initials Person Examining Contents: BU 8/25

Thermometer: T1505 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☑ Samples on ice, cooling process has begun

Correction Factor: 0.0°C **Cooler Temp Corrected (°C):** 2.6 **Biological Tissue Frozen?** ☐ Yes ☑ No ☐ N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☑ Yes	☐ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Samples Field Filtered?	☐ Yes	☑ No	☐ N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: SL/WT				
All containers needing acid/base preservation have been checked?	☑ Yes	☑ No	☐ N/A	10. HNO3 pH<2
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) **Exceptions:** VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	☑ Yes	☑ No	☐ N/A	HCl pH<2 H2SO4 pH<2 NaOH pH>12 NaOH/ZnOAc pH>9
	☐ Yes	☑ No	☐ N/A	
Samples checked for dechlorination?	☑ Yes	☐ No	☐ N/A	11.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	12.
Trip Blank Present?	☐ Yes	☑ No	☐ N/A	13.
Trip Blank Custody Seals Present?	☐ Yes	☑ No	☐ N/A	
Pace Trip Blank Lot # (if purchased):____				

BU 8/25

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Sample Discrepancy: _____

Project Manager SCURF Review: NMG **Date:** 8/26/16

Project Manager SRF Review: TC **Date:** 8/26

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)

Pace Analytical®
www.pacelabs.com

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

2085169

Section A Required Client Information:
Company: AECOM
Address: 1600 Perimeter Park Dr
Morrisville NC
Email To: Erin.Stewart@aecom.com
Phone: 919-461-1323 Fax: –
Requested Due Date/TAT: STD

Section B Required Project Information:
Report To: Martha Meyers Lee
Copy To: Erin Stewart
Purchase Order No.:
Project Name: NCDOT I-5000 WBS 41153.1.1
Project Number: 60516190

Section C Invoice Information:
Attention: Direct bill to NC DOT
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY
NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | X OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Analysis Test: TCL VOC's + TICs; 1,4-Dioxane; TCL SVOCs + TICs; TAL Metals; Hexavalent Cr

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Sed-1	SL	G			8/25/16	0845		13	5					2	2	4		001
2	Sed-2						0930		13	5					2	2	4		002
3	Sed-3						1015		13	5					2	2	4		003
4	Sed-4						1145		13	5					2	2	4		004
5	Sed-5						1245		13	5					2	2	4		005
6	Sed-6						1300		13	5					2	2	4		006
7	EB-01-082516	WT					1215		10										008
8	Sed-3-Dup	SL					1020		13	5					2	2	4		007
9	Trip Blank 1	WT							2										009
10	Trip Blank 2	WT							2										010
11																			
12																			

Pace Project No.: 92310272

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Jeffrey T. Hrezik	8/25/16	1930	B. Way / pace	8/25	19:26	2.4	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Jeffrey T. Hrezik
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/25/16

*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.

F-ALL-Q-020rev.07, 15-May-2007