

Preliminary Site Assessment

US 70 At NC 101 One Lane Roundabout

Parcel # 6 – Jeanne D. Huntley Property

1501 Live Oak Street, Beaufort, Carteret County, North Carolina

TIP No. U-6058

WBS Element: 47482.1.1

May 15, 2020

Terracon Project No. 72207023



Prepared for:

North Carolina Department of Transportation
Raleigh, North Carolina

Prepared by:

Terracon Consultants, Inc.
Greenville, North Carolina

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials

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Allen McColl
Project Scientist

DocuSigned by:

6308FB856D094A7...



Donald R. Malone, PE, RS
Senior Engineer



DocuSigned by:

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May 15, 2020



North Carolina Department of Transportation
Attention: Mr. John Pilipchuk, LG
GeoEnvironmental Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Re: Preliminary Site Assessment (PSA)
US 70 At NC 101 One Lane Roundabout
Parcel # 6 – Jeanne D. Huntley Property
1501 Live Oak Street, Beaufort, Carteret County, North Carolina
TIP No. U-6058
WBS Element: 47482.1.1

Dear Mr. Pilipchuk:

Terracon Consultants, Inc. (Terracon) is pleased to submit a Preliminary Site Assessment (PSA) report for the above referenced site. This assessment was performed in accordance with our Proposal for Preliminary Site Assessment (Terracon Proposal No. P72207023) dated March 13, 2020. This report includes the findings of the investigation and provides our conclusions and recommendations. Terracon appreciates the opportunity to provide these services to the North Carolina Department of Transportation. If you have any questions concerning this report or need additional information, please contact us at 252-353-1600.

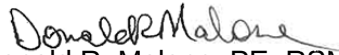
Sincerely,

Terracon Consultants, Inc.

Prepared by:


Allen McColl
Project Scientist

Reviewed by:


Donald R. Malone, PE, RSM
Senior Engineer

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Environmental



Facilities



Geotechnical



Materials

PRELIMINARY SITE ASSESSMENT

US 70 AT NC 101 ONE LANE ROADABOUT

TIP NO. U-6058

WBS ELEMENT: 47482.1.1

PARCEL # 6 – JEANNE D. HUNTLEY PROPERTY

1501 LIVE OAK STREET, BEAUFORT, NORTH CAROLINA

1.0 INTRODUCTION

1.1 Site Description

Site Name	Parcel # 6 – Jeanne D. Huntley Property
Site Location/Address	1501 Live Oak Street, Beaufort, North Carolina 28516 (Carteret County Tax PIN: 730615637174000)
General Site Description	The site consists of an approximate 0.34-acre parcel that is developed with an approximately 1,700 square foot unoccupied commercial building. The remainder of the site is further improved with asphalt or concrete parking areas and drives with concrete or grassed medians. The site historically operated as a gas station that formerly utilized an underground storage tank (UST) fuel dispensing system.

1.2 Site History

The site is located at 1501 Live Oak Street in Beaufort, Carteret County, North Carolina. At the time of the Preliminary Site Assessment (PSA), the site was observed to contain an approximately 1,700 square foot unoccupied commercial building. The remainder of the site is further improved with asphalt or concrete parking areas and drives with concrete or grassed medians. The site formerly operated as a gas station that formerly utilized an UST fuel dispensing system.

Terracon obtained historical information about the site through our review of historical regulatory database files posted to the North Carolina Department of Environmental Quality (NCDEQ) online repository and files provided by the client. Based on our review of the available files, we understand the site formerly operated as Freshway # 786 that was assigned an UST Facility ID Number of 00-0-000011122). A petroleum release was discovered at the site in May 1997 during a Phase I/Phase II Environmental Site Assessment (Nemargut Engineering, 2019).

Sometime between 2018 and 2019, three 10,000-gallon gasoline USTs were removed from the site along with the product lines, dispenser pumps and canopies associated with the UST system.

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1501 Live Oak Street, Beaufort, NC

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Several monitoring wells have been installed on the site and on off-site properties near the site to investigate the groundwater impacts from the tank release. Free product has reportedly been observed in on-site monitoring well MW-5. Several Aggressive Fluid Vapor Recovery (AFVR) events have occurred to help remediate the groundwater contamination at the site.

During a groundwater sampling event in 2019, Nemargut Engineering collected samples from monitoring wells MW-1 through MW-3 and MW-5 through MW-11. Groundwater samples from MW-1, MW-2, MW-3 and MW-5 contained at least one target petroleum constituent above the Title 15A North Carolina Administrative Code 2L Groundwater Quality Standard (2L Standard). MW-7, an off-site well located on the western adjoining property across NC 101, reportedly contained solvent contamination (tetrachloroethylene, trichloroethylene and vinyl chloride) above the 2L Standards (Nemargut Engineering, 2019). During a 2017 groundwater sampling event, similar results from the groundwater sampling were found for these ten monitoring wells (Nemargut Engineering, 2018).

A drycleaners has historically operated on the southern adjoining property across Live Oak Street, closest to MW-8. During the 2017 and 2019 groundwater sampling events, the concentrations of target constituents and solvents were less than the laboratory's reporting limits in the samples collected from MW-8.

Nemargut Engineering continues to monitor groundwater quality in response to the tank release. Groundwater flow in the monitoring well network has been documented to be towards the northwest and towards the proposed ROW.

1.3 Scope of Work

Terracon conducted the following PSA scope of work (SOW) in accordance with Terracon's Proposal No. P72207023 dated March 13, 2020. This PSA is being completed prior to a planned upgrade of US 70 at NC 101 for a one lane roundabout. The scope of work included a geophysical investigation, the collection of soil samples from the rights-of-way (ROW), the collection of a groundwater sample from a temporary monitoring well, the collection of groundwater samples from four permanent monitoring wells, and the preparation of a report documenting our investigation activities. The PSA was performed within the proposed rights-of-way (ROW) as indicated by NCDOT provided plan sheets, and not intended to delineate potential impacts.

1.4 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either expressed or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of

laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These services were performed in accordance with our Proposal for Preliminary Site Assessment (Terracon Proposal No. P72207023) dated March 13, 2020 and were not conducted in accordance with ASTM E1903-11.

1.5 Additional Scope Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, undetectable or not present during these services; thus, we cannot represent that the site is free of hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this PSA. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.6 Reliance

This report has been prepared for the exclusive use of the NCDOT. Authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the expressed written authorization of the client and Terracon.

2.0 FIELD ACTIVITIES

The following PSA activities are presented in the order that they were conducted in the field. **Exhibit 1** presents the topography of the site on a portion of the USGS topographic quadrangle map of Beaufort, North Carolina, 1949 (photo-revised 1987). **Exhibits 2 and 3** depict the site layout and indicate the approximate locations of the site features, soil boring locations, and soil analytical results. **Exhibit 4** depicts the site layout and indicate the approximate locations of the site features, well locations, and analytical groundwater results.

2.1 Geophysical Survey

On April 27, 2020, Terracon conducted a geophysical investigation at the site in an effort to determine if unknown, metallic USTs are present beneath the proposed ROW area. The geophysical investigation included an electromagnetic (EM) induction survey using a Geonics EM31-SH metal detection instrument and a ground penetrating radar (GPR) survey using a Geophysical Survey Systems SIR-4000 unit.

The geophysical investigation identified a potential UST within the proposed ROW area, as depicted on **Exhibits 2 and 3**. The possible UST measured approximately 4 feet long and was located approximately 2 feet below land surface (bls). This area of the site was asphalt covered. Surface features such as a vent pipe or fill port were not observed in association with the possible UST.

Terracon attempted to verify the potential UST further by removing the asphalt layer. Once the asphalt layer was removed, a concrete layer was found. Terracon attempted to core through the concrete layer with available tools, however; the concrete layer was fairly thick and Terracon could not breach the concrete layer.

While on-site for the soil sampling and groundwater sampling event, Terracon directed the driller to advance two borings, one on each side of the potential UST, in order to further assess the potential UST. Borings B-4 and B-5, further discussed in the soil sampling section below, were advanced on the northern and southern side of the potential UST. Field screening of the soils and soil samples collected beside the potential UST did not indicate a release has occurred. The buried object could potentially be stormwater drainage box or electrical box and not related to a petroleum UST.

In addition to metal detection and GPR scans, NC One Call public utility locator was used to identify several underground utility lines and to clear boring locations. A copy of the geophysical report is in **Appendix A**.

2.2 Soil Sampling

Based on the findings of the geophysical investigation and Terracon's site observations, Terracon oversaw the advancement of nine soil borings (B-1 through B-9) on April 28, 2020 along the western portion and a portion of the southern portion of the site and within the proposed NCDOT ROW. The borings were completed by a North Carolina Certified Well Contractor (Carolina Drilling dba Bridger Drilling Enterprises, Inc.) using a track-mount Geoprobe® 6625CP direct-push drill rig.

Soil samples were collected in 5-foot, disposable, Macro-Core® sampler tubes to document soil lithology, color, moisture content, and sensory evidence of impacts. Each soil sample was screened for organic vapors using an 11.7 eV photoionization detector (PID). The PID data were collected in order to corroborate laboratory data and assist in selection of sample intervals for laboratory analysis. PID readings from the borings B-6, B-8 and B-9 were field screened to be less than 1 part per million (ppm). PID readings from the remaining borings (SB-1, SB-2, SB-3, SB-4, SB-5 and SB-7) ranged from 0.2 ppm to 1,140 ppm. The highest PID readings were in B-1. The PID screening values are summarized in **Table 1**.

Based on the proposed disturbance depths and discussion with the NCDOT, each of the soil borings was advanced to a depth of approximately 10 feet bls. Based on the results of the field screening and/or our proposed scope of work, nine soil samples, one from each boring, were collected for laboratory analysis. The soil samples selected for analysis from B-1 and B-3 were from depths between approximately 2.5 feet and 5 feet bls. The soil samples selected for analysis from B-2, B-4, B-8 and B-9 were from depths between approximately 5 feet to 7.5 feet bls. The soil samples selected for analysis from B-5, B-6 and B-7 were from depths between approximately 7.5 feet to 10 feet bls. Soil samples were collected in the depth interval most likely to be impacted based on field screening observations. Samples were placed in laboratory provided sample containers and shipped to REDLAB/QROS, LLC – Environmental Testing (REDLAB) for analysis by Ultraviolet Fluorescence (UVF).

The drilling equipment used at the site was decontaminated prior to use and between the advancement of each boring. Non-dedicated sampling equipment was decontaminated using a Liquinox®-water wash followed by a distilled water rinse. Each of the boreholes was backfilled with bentonite pellets. Surface completion was achieved with either dirt or asphalt cold patch. Remaining investigation derived waste (IDW) was spread on the site.

Soil generally consisted of silty sand to a depth of approximately 2 foot underlain by clayey sand and medium sand to approximately 10 feet bls. Groundwater was encountered in the soil borings at approximately 4.5 feet bls. The soil boring logs are included in **Appendix B**. Sample locations are depicted on **Exhibits 2 and 3**.

2.3 Groundwater Sampling

Based on the results of the field screening, boring B-1 was initially advanced to 10 feet bls on April 28, 2020 and converted to temporary monitoring well TW-1, which was constructed as follows:

- Installation of a 5-foot section of 1-inch diameter, 0.010-inch machine slotted PVC well screen;
- Installation of a 5-foot section of 1-inch diameter, threaded, flush-joint PVC riser pipe to the ground surface; and
- Placement of sand in the borehole annulus to approximately 2 feet above the screened interval, followed by a layer of hydrated bentonite.

During the temporary well installation, the boring for B-1 collapsed and the well screen and riser could only be installed to approximately 9 feet bls with the screen being between 4 to 9 feet bls and the riser being approximately 1 foot above the ground surface.

A groundwater sample was collected from TW-1 using low flow sampling techniques (i.e., <200

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milliliters per minute). Groundwater parameters (pH, specific conductivity, dissolved oxygen, oxidation-reduction potential, and temperature.) were monitored and the well was purged until the parameters stabilized (i.e., three consecutive readings were within approximately 5 percent of one another). After the purging was completed, Terracon collected the sample directly into laboratory supplied-containers and packed the sample in an iced cooler.

Terracon returned to the site on April 29, 2020 to collect groundwater samples from select on-site and off-site permanent groundwater monitoring wells. The on-site monitoring wells sampled were identified in the 2019 Groundwater Monitoring Report as MW-2 and MW-5 (Nemargut Engineering, 2019). The off-site monitoring wells sampled were identified in this report as MW-7 and MW-8.

Groundwater samples were collected from MW-2, MW-5, MW-7 and MW-8 using low flow sampling techniques. Terracon purged the wells and collected groundwater parameters until the parameters stabilized. After the purging was completed, the samples were collected directly into laboratory-supplied containers and packed in an iced cooler.

The groundwater samples collected from both the temporary well and permanent monitoring wells were shipped together in to Pace Analytical, Inc. (Pace) in Huntersville, North Carolina for analysis of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) by United States Environmental Protection Agency (USEPA) Method 6200B and USEPA Method 8270D, respectively.

Groundwater sampling logs are included in **Appendix D**. The temporary monitoring well and four permanent monitoring well locations are depicted on **Exhibit 4**.

3.0 LABORATORY ANALYSES

Soil samples were submitted to REDLAB for analysis of the following:

- TPH-gasoline range organics (C₅-C₁₀) (TPH-GRO);
- TPH-diesel range organics (C₁₀-C₃₅) (TPH-DRO);
- Total petroleum hydrocarbons (C₅-C₃₅) (TPH);
- Benzene, toluene, ethylbenzene, and xylenes (BTEX);
- Total aromatics (C₁₀-C₃₅);
- 16 EPA Polycyclic Aromatic Hydrocarbons (16 EPA PAHs); and
- Benzo(a)pyrene (BaP).

Groundwater samples were submitted to Pace for analysis of the following:

- EPA Method 6200B for VOCs; and
- EPA Method 8270 for SVOCs.

Please refer to **Appendix C** for the laboratory analytical reports.

4.0 DATA EVALUATION

4.1 Soil Analytical Results

Laboratory analyses identified the following detections above the laboratory reporting limits in soil samples B-10 through B-12:

- BTEX was reported within B-1 at 142.6 milligrams per kilogram (mg/kg);
- TPH-GRO was reported within B-1, B-3 and B04 at concentrations ranging from 0.8 mg/kg to 1,911 mg/kg;
- TPH-DRO was reported within B-1, B-2, B-3, B-7, B-8 and B-9 at concentrations ranging from 0.29 mg/kg to 280.4 mg/kg;
- TPH was reported within B-1, B-2, B-3, B-4, B-7, B-8 and B-9 at concentrations ranging from 0.29 mg/kg to 2,191.4 mg/kg;
- Total aromatics (C₁₀-C₃₅) was reported within B-1, B-2, B-3, B-7, B-8 and B-9 at concentrations ranging from 0.2 mg/kg to 216.6 mg/kg;
- 16 EPA PAHs was reported within B-1, B-2 and B-3 at concentrations ranging from 0.94 mg/kg to 9.7 mg/kg; and
- BaP was not detected above laboratory reporting limits within the samples collected.

Laboratory analysis identified concentrations of TPH-GRO or TPH-DRO in excess of the NCDEQ Action Levels (50 mg/kg and 100 mg/kg, respectively) within B-1 and B-2.

Table 2 summarizes the results of the analyses of the soil samples. **Exhibit 3** depicts the boring locations and detected compounds.

4.2 Groundwater Analytical Results

Laboratory analysis identified the following detections above the laboratory reporting limits in groundwater samples collected from TW-1, MW-2, MW-5, MW-7 and MW-8:

TW-1

- The following VOCs were detected within TW-1: benzene, ethylbenzene, isopropylbenzene, methyl-tert-butyl-ether (MTBE); naphthalene, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene. The detected concentrations of benzene and MTBE exceed their respective 2L Standards.
- The following SVOCs were detected within TW-1: 1-methylnaphthalene and naphthalene. The detected concentration of 1-methylnaphthalene exceeds the respective 2L Standard.

MW-2

- The following VOCs were detected within MW-2: cis-1,2-dichloroethene, ethylbenzene, tetrachloroethene and trichloroethene. The detected concentrations of tetrachloroethene exceeds the respective 2L Standards.
- SVOCs were not detected within MW-2 above the laboratory reporting limits.

MW-5

- The following VOCs were detected within MW-5: benzene, ethylbenzene, isopropylbenzene, MTBE, naphthalene, toluene, 1,2,4-trimethylbenzene and xylenes (total). The detected concentrations of benzene, ethylbenzene, MTBE, naphthalene, toluene, 1,2,4-trimethylbenzene and xylenes (total) exceed their respective 2L Standards.
- The following SVOCs were detected within MW-5: 2,4-dimethylphenol, di-n-butylphthalate, 1-methylnaphthalene, 2-methylnaphthalene, 2-methylphenol(o-cresol), 3&4-methylphenol(m&p-cresol) and naphthalene. The detected concentration of 1-methylnaphthalene, 2-methylnaphthalene and naphthalene exceeded their respective 2L Standard.

MW-7

- The following VOC was detected within MW-7: toluene. The detected concentration of toluene was below the 2L Standard.
- SVOCs were not detected within MW-7 above the laboratory reporting limits.

MW-8

- The following VOCs were detected within MW-8: cis-1,2-dichloroethene, tetrachloroethene, trichloroethene and vinyl chloride. The detected concentrations of tetrachloroethene, trichloroethene and vinyl chloride exceeded their respective 2L Standards.
- The following SVOC was detected within MW-8: di-n-butylphthalate. The detected concentration of di-n-butylphthalate was below the 2L Standard.

Table 3 summarizes the results of the analyses of the groundwater sample. **Exhibit 4** depicts the groundwater sample locations and detected compounds.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The findings of this investigation are discussed below.

- The site was historically utilized as a gas station. A petroleum release was discovered at the site in May 1997 during a Phase I/Phase II Environmental Site Assessment. Three petroleum USTs were removed from the site sometime between 2018 and 2019. The tank release investigation is presently ongoing. Groundwater flow has been documented to be towards the northwest and towards the subject area of the proposed ROW at the site.
- The geophysical investigation did identify a potential UST within the proposed NCDOT ROW. Surface features such as a vent pipe or fill port were not observed in association with the potential UST. After further field investigations and review of the soil sampling analytical results, it does not appear the buried object is a petroleum UST and is likely a stormwater drainage box or electrical box.
- Laboratory analyses reported concentrations of BTEX, TPH-GRO, TPH-DRO, TPH, Total Aromatics and/or 16 EPA PAHS in seven soil borings at the site. The detected concentration of TPH-GRO and TPH-DRO exceed the NCDEQ Action Levels in B-1 at least the 2.5 to 5 feet bls range. The detected concentration of TPH-DRO exceeds the NCDEQ Action Level in B-2 in at least the 5 to 7.5 feet bls range. The detected concentrations of these compounds in B-3, B-4, B-7, B-8 and B-9 does not exceed the NCDEQ Action Levels.
- The area of contamination appears to within the area of B-1 and B-2 and could be associated with releases from the former on-site USTs. An estimated weight of petroleum impacted soil located within the ROW is 460 tons or 310 cubic yards. This calculation assumes an approximate area of 2,800 square feet and depths ranging from land surface

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Parcel # 6 – Jeanne D. Huntley Property

1501 Live Oak Street, Beaufort, NC

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to 3 feet bls. The density was estimated at 1.5 tons of soil per cubic yard. The actual amount of impacted soil can only be determined after excavation or by advancing additional borings at the site to further delineate the extents of contamination. This area would best be managed as a fill area, to avoid potentially impacted soil and groundwater.

- Laboratory analysis reported concentrations of multiple VOCs and SVOCs within groundwater at the site. The detected concentrations exceeded the 2L Standard in groundwater samples collected from TW-1, MW-2, MW-5 and MW-8.
- Terracon recommends NCDOT provide a copy of the results to the owner and/or operator of the site and to NCDEQ.
- Terracon does not recommend further assessment of the ROW at this site. However, based on detections of petroleum compounds, impacted soil and groundwater encountered during NCDOT's project should be managed and/or disposed of in accordance with applicable local and State requirements. In addition, construction workers should be alert for potential soil and/or groundwater impacts at the site.

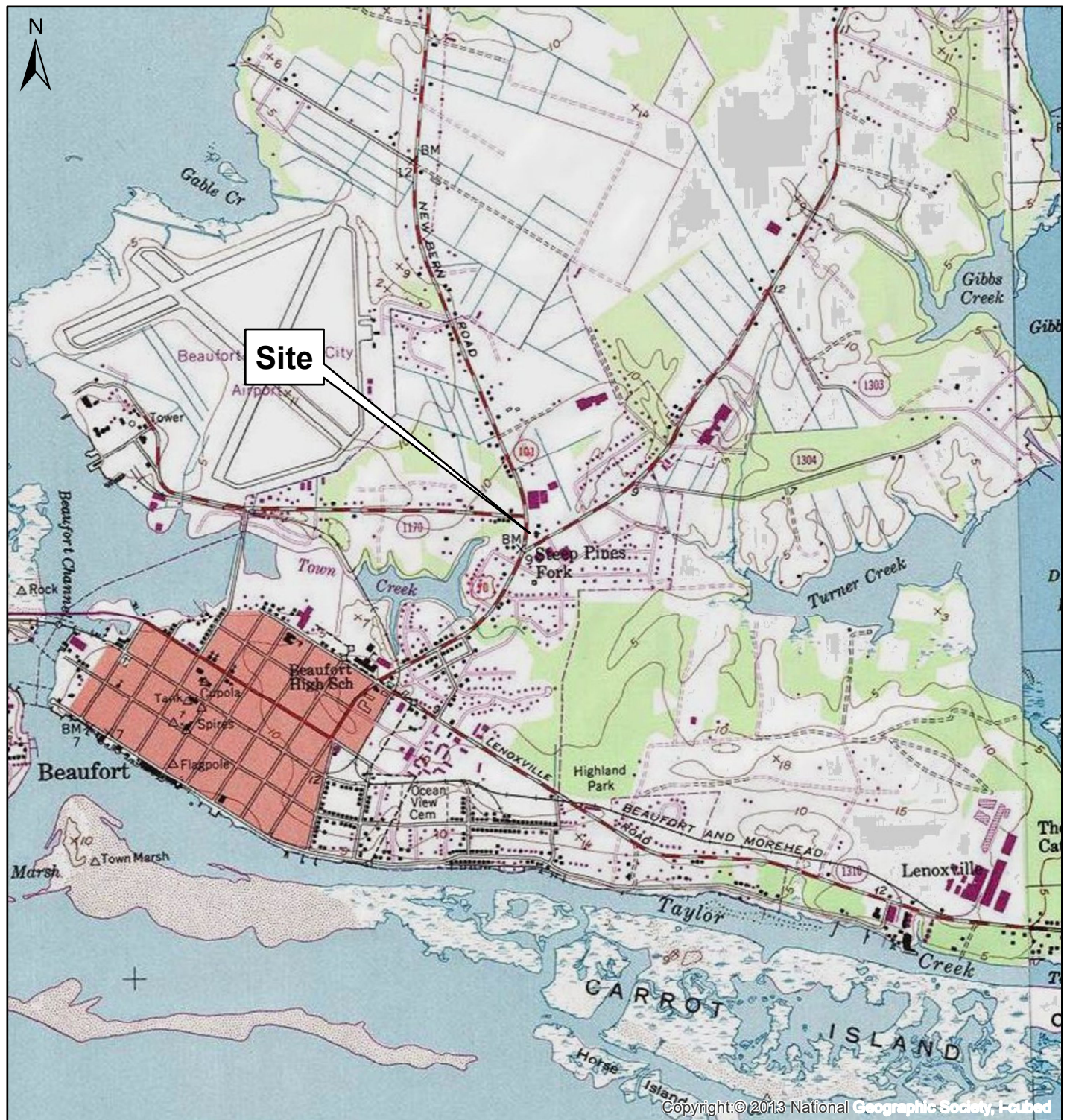
6.0 REFERENCES

Nemargut Engineering, 2018, Groundwater Monitoring Report, Freshway #786, 1501 Live Oak Street, Beaufort, NC. Henry Nemargut Engineering Services March 17.

Nemargut Engineering, 2019, Groundwater Monitoring Report, Freshway #786, 1501 Live Oak Street, Beaufort, NC. Henry Nemargut Engineering Services April 27.

NCDOT, 2016. Revised GeoEnvironmental Report for Preliminary Site Assessments. "Hazardous Material Report." August 30, 2016.

FIGURES



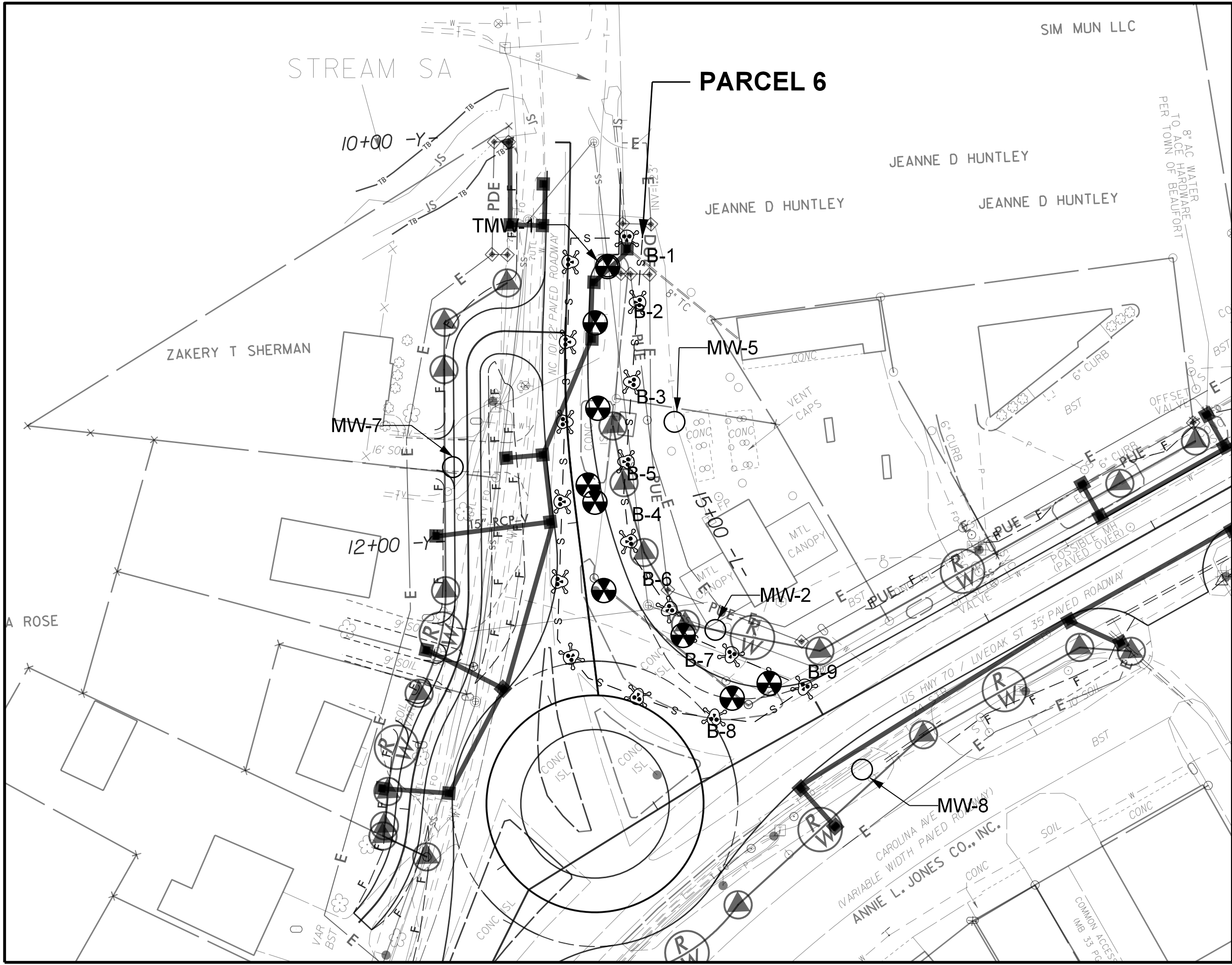
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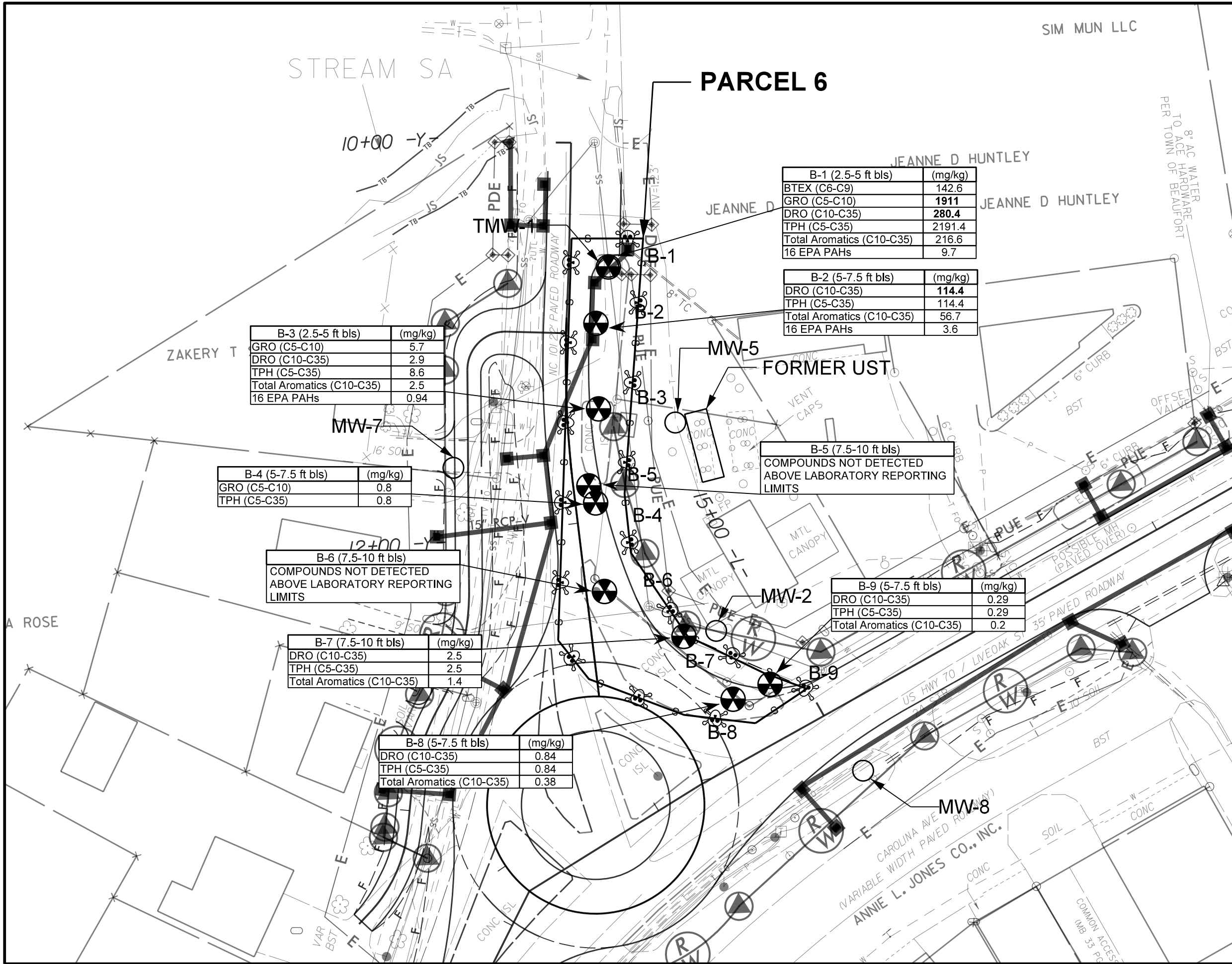
CONTOUR INTERVAL 5 FEET

USGS TOPOGRAPHIC MAP
Beaufort, NC Quadrangle (1949, Photorevised 1983)

PM: KAM	Project No. 72207023		Topographic Vicinity Map		FIGURE NO.
Drawn By: JWW	Scale: 1:24,000		Preliminary Site Assessment Parcel #6 - Jeanne D. Huntley 1501 Live Oak Street Beaufort, Carteret County, North Carolina		1
Checked By: DRM	File Path:				
Approved By: KAM	Date: May 2020				
2401 Brentwood Drive, Suite 107 Raleigh, NC 27604 Phone: (919) 873-2211 Fax: (919) 873-9555					



PROJECT REFERENCE NO.	EXHIBIT
47482.1.1 (U-6058)	2
SITE DIAGRAM WITH BORING LOCATIONS	
PARCELS 6 JEANNE D HUNTLEY 1501 LIVE OAK STREET BEAUFORT, CARTERET COUNTY	
LEGEND — PROPERTY LINE --- EXISTING RIGHT OF WAY LINE —▲— NEW RIGHT OF WAY LINE WITH PIN AND CAP --- EXISTING EDGE OF PAVEMENT --- PROPOSED EDGE OF TRAVEL F C --- PROPOSED CUT / FILL LINE ■ PROPOSED CATCH BASIN — PROPOSED DRAINAGE PIPING — PUE — PROPOSED PERMANENT UTILITY EASEMENT ⊗ BORING LOCATION ○ MONITORING WELL	
0 50 100 FEET	



PROJECT REFERENCE NO.	EXHIBIT
47482.1.1 (U-6058)	3

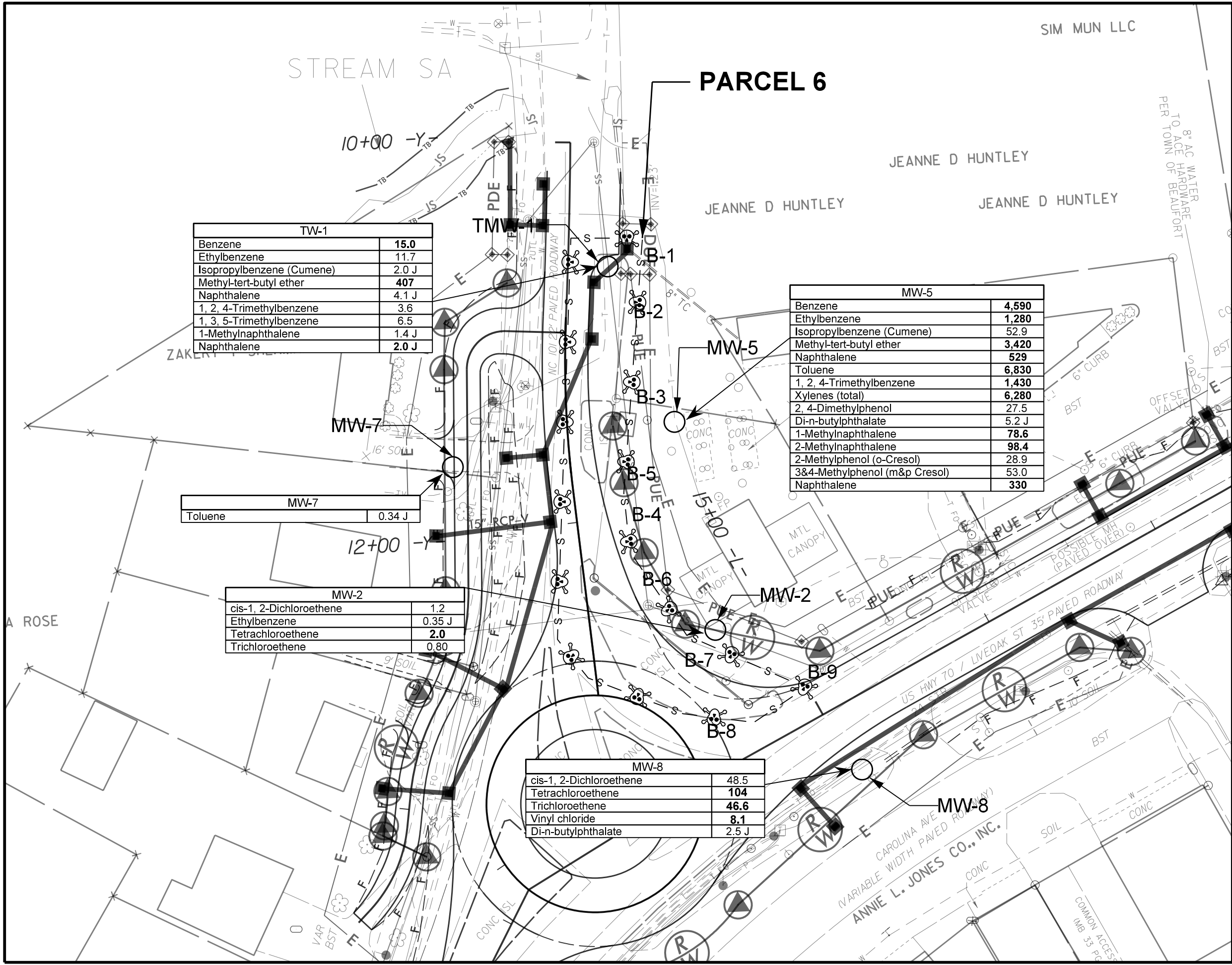
SITE DIAGRAM WITH BORING LOCATIONS AND ANALYTICAL DATA

PARCELS 6
JEANNE D HUNTLEY
1501 LIVE OAK STREET
BEAUFORT, CARTERET COUNTY

LEGEND

- PROPERTY LINE
- EXISTING RIGHT OF WAY LINE
- NEW RIGHT OF WAY LINE WITH PIN AND CAP
- EXISTING EDGE OF PAVEMENT
- PROPOSED EDGE OF TRAVEL
- PROPOSED CUT / FILL LINE
- PROPOSED CATCH BASIN
- PROPOSED DRAINAGE PIPING
- PROPOSED PERMANENT UTILITY EASEMENT
- BORING LOCATION
- MONITORING WELL

0 50 100
FEET



PROJECT REFERENCE NO.47482.1.1 (U-6058)

EXHIBIT4

SITE DIAGRAM WITH GROUNDWATER SAMPLING LOCATIONS & ANALYTICAL DATA

PARCELS 6
JEANNE D HUNTLEY
1501 LIVE OAK STREET
BEAUFORT, CARTERET COUNTY

LEGEND

PROPERTY LINE

EXISTING RIGHT OF WAY LINE

NEW RIGHT OF WAY LINE WITH PIN AND CAP

EXISTING EDGE OF PAVEMENT

PROPOSED EDGE OF TRAVEL

PROPOSED CUT / FILL LINE

PROPOSED CATCH BASIN

PROPOSED DRAINAGE PIPING

PROPOSED PERMANENT UTILITY EASEMENT

BORING LOCATION

MONITORING WELL

050100

FEET

TABLES

Table 1
Summary of PID Field Screening Values
Preliminary Site Assessment
Parcel #6 - Jeanne D. Huntley
1501 Live Oak Street, Beaufort, Carteret County, North Carolina
Terracon Project No. 72207023

Boring Depth (feet bls)	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9
(0 - 2.5)	343.7	0.2	0.9	2.8	10.8	<0.1	<0.1	<0.1	<0.1
(2.5 - 5)	1140	0.4	240	0.6	8.5	<0.1	<0.1	<0.1	<0.1
(5 - 7.5)	575.2	116.7	18.6	22.3	23.6	<0.1	<0.1	<0.1	<0.1
(7.5 - 10)	105.5	10.2	18.4	6.4	23.9	0.5	8.1	<0.1	<0.1

Notes:

Field screening was conducted on April 28, 2020

Values shown are given in parts per million (ppm)

PID - Photo-ionization detector

PID was calibrated using 100 ppm isobutylene gas

ft bls - feet below land surface.

Table 2
Summary of Soil Analytical Results
Preliminary Site Assessment
Parcel #6 - Jeanne D. Huntley
1501 Live Oak Street, Beaufort, Carteret County, North Carolina
Terracon Project No. 72207023

Sample ID: Sample Depth (ft bls):	B-1 2.5-5	B-2 5-7.5	B-3 2.5-5	B-4 5-7.5	B-5 7.5-10	B-6 7.5-10	B-7 7.5-10	B-8 5-7.5	B-9 5-7.5	NCDEQ Action Level	MSCC Industrial / Commercial
BTEX (C6 - C9)	142.6	<0.84	<1.7	<0.35	<0.59	<0.56	<0.58	<0.56	<0.29	NE	NE
GRO (C5 - C10)	1911	<0.84	5.7	0.8	<0.59	<0.56	<0.58	<0.56	<0.29	50	NE
DRO (C10 - C35)	280.4	114.4	2.9	<0.35	<0.59	<0.56	2.5	0.84	0.29	100	NE
TPH (C5 - C35)	2191.4	114.4	8.6	0.8	<0.59	<0.56	2.5	0.84	0.29	NE	NE
Total Aromatics (C10-C35)	216.6	56.7	2.5	<0.07	<0.12	<0.11	1.4	0.38	0.2	NE	NE
16 EPA PAHs	9.7	3.6	0.94	<0.11	<0.19	<0.18	<0.18	<0.18	<0.09	NE	NE
BaP	<0.9	<0.034	<0.033	<0.014	<0.024	<0.022	<0.023	<0.022	<0.012	NE	0.78

Notes:

Soil samples were collected on April 28, 2020.

Detected compounds are shown in the table.

Concentrations are reported in milligrams per kilogram (mg/kg).

ft bls - feet below land surface.

GRO - Gasoline Range Organics.

DRO - Diesel Range Organics.

TPH - Total Petroleum Hydrocarbons.

BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes.

16 EPA PAHs - Environmental Protection Agency Polycyclic Aromatic Hydrocarbons (acenaphthene, acenaphthylene, anthracene,

benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[g,h,i]perylene, benzo[a]pyrene,

chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-c,d]pyrene, naphthalene, phenanthrene, pyrene).

NE - Standard not established.

Detections shaded in gray exceed the North Carolina Department of Environmental Quality (NCDEQ) Action Level.

MSCC Industrial/Commercial - Maximum Soil Contaminant Concentration Levels Industrial/Commercial soil cleanup levels.

Bold: Constituent concentration reported above the method detection limit.

Table 3
Summary of Groundwater Analytical Results
Preliminary Site Assessment
Parcel #6 - Jeanne D. Huntley
1501 Live Oak Street, Beaufort, Carteret County, North Carolina
Terracon Project No. 72207023

Sample ID: Dated Collected (mm/dd/yy)	TW-1 4/28/2020	MW-2 4/29/2020	MW-5 4/29/2020	MW-7 4/29/2020	MW-8 4/29/2020	GWQS	GCL
Volatile Organic Compounds (Method 6200B)							
Benzene	15.0	<0.50	4,590	<0.50	<0.50	1	5,000
cis-1,2-Dichloroethene	<2.0	1.2	<25.0	<0.50	48.5	70	70,000
Ethylbenzene	11.7	0.35 J	1,280	<0.50	<0.50	600	84,500
Isopropylbenzene (Cumene)	2.0 J	<0.50	52.9	<0.50	<0.50	70	25,000
Methyl-tert-butyl ether	407	<0.50	3,420	<0.50	<0.50	20	20,000
Naphthalene	4.1 J	<2.0	529	<2.0	<2.0	6	6,000
Tetrachloroethene	<2.0	2.0	<25.0	<0.50	104	0.7	3,000
Toluene	<2.0	<0.50	6,830	0.34 J	<0.50	600	260,000
Trichloroethene	<2.0	0.80	<25.0	<0.50	46.6	3	3,000
1,2,4-Trimethylbenzene	3.6	<0.50	1,430	<0.50	<0.50	400	28,500
1,3,5-Trimethylbenzene	6.5	<0.50	<25.0	<0.50	<0.50	400	25,000
Vinyl chloride	<4.0	<1.0	<50.0	<1.0	8.1	0.03	30
Xylenes (Total)	<6.0	<1.5	6,280	<1.5	<1.5	500	85,500
Semi-volatile Organic Compounds (Method 8270E)							
2,4-Dimethylphenol	<10.0	<10.0	27.5	<10.0	<10.0	100	100,000
Di-n-butylphthalate	<10.0	<10.0	5.2 J	<10.0	2.5 J	700	NE
1-Methylnaphthalene	1.4 J	<10.0	78.6	<10.0	<10.0	1*	1,000
2-Methylnaphthalene	<10.0	<10.0	98.4	<10.0	<10.0	30	12,500
2-Methylphenol(o-Cresol)	<10.0	<10.0	28.9	<10.0	<10.0	400*	400,000
3&4-Methylphenol(m&p Cresol)	<10.0	<10.0	53.0	<10.0	<10.0	400	400,000
Naphthalene	2.0 J	<10.0	330	<10.0	<10.0	6	6,000

Notes:

Detected compounds are shown in the table

Concentrations are reported in micrograms per liter (µg/L)

GWQS - North Carolina Groundwater Quality Standard (2L Standard, May, 2013)

* - Interim Maximum Allowable Concentrations (IMACs) used due to unestablished standard in GWQS

GCL - Gross Contamination Levels for Groundwater (September, 2014)

NE - standard not established

Shading indicates concentration exceeds an applicable standard

Bold: Constituent concentration reported above the method detection limit

J: Indicates estimated concentration under laboratory reporting limit but above detection limit

APPENDIX A
GEOPHYSICAL SURVEY REPORT

May 11, 2020



John Pilipchuk, L.G., P.E.
North Carolina Department of Transportation
GeoEnvironmental Engineering Unit
1589 Mail Service Center
Raleigh, NC 27699-1589

Re: Report for GeoEnvironmental Phase II Site Investigations
Locate USTs and Utilities using Geophysical Methods
Beaufort, Carteret County, North Carolina
ID: 36238; TIP: U-6058; WBS Element No. 47482.1.1
Terracon Project No. 72207023

Dear Mr. Pilipchuk:

On April 27, 2020, a representative of Terracon Consultants, Inc. (Terracon) performed geophysical exploration services at the above referenced site in general accordance with Terracon Proposal No. P72207023 dated March 13, 2020. This report is presented as a summary of those geophysical services.

1.0 PROJECT DESCRIPTION

Based on the RFP from the NCDOT, Preliminary Site Assessments are requested for the following location in Beaufort, North Carolina:

- Parcel #6 – Jeanne D. Huntly Property (1501 Live Oak Street)

The project consisted of the exploration of the existing right-of-way (ROW) that is located on Parcel #6. The purpose of the geophysical exploration was to aid in identifying anomalies consistent with Underground Storage Tanks (USTs) utilizing non-intrusive geophysical methods.

2.0 EXPLORATION METHODS

Terracon used a frequency domain electromagnetic profiler (EM) consisting of a Geonics EM-31 system with data logger to collect EM data. In general, field data collection followed the procedures referenced in ASTM D6639-18. More information on both the general method and collection procedures can be found in the referenced standard. EM collects soil conductivity in millisiemens per meter (mS/m) and magnetic susceptibility in parts per trillion (ppt).



Data was collected on a bi-directional grid at approximately 5-foot spacings in both directions. Data was post-processed utilizing trackmaker 31 software engineered by Geomar and Surfer software developed by Golden software.

Additionally, a Ground Penetrating System (GPR) consisting of a 350 MHz antenna and SIR-4000 system made by Geophysical Survey Systems Inc. (GSSI), was utilized to collect GPR data. Data was collected on a bi-directional grid with spacings of approximately 5 feet in both directions. Following the completion of field data collection, data was post-processed utilizing RADAN software engineered by GSSI.

3.0 FINDINGS AND CONCLUSIONS

Terracon reviewed the EM and GPR data collected. Due to interference from multiple buried utilities and above-ground structures, the anomalies consistent with USTs could not be isolated from the EM data. In general, the following measurements were considered “background” for the site

- Parcel #6
 - Magnetic Susceptibility (ppt): 0 to 8
 - Soil Conductivity (mS/m): 0 to 40

Measurements outside of these ranges were interpreted to be caused by above or below ground anomalies. The depth of EM signal penetration is approximately 16 feet below the existing grade; However, the actual depth is not produced from the data collected.

Upon review of the GPR data, an anomaly consistent with a UST was identified in Parcel #6 at coordinates 34.725053° N, 76.647537° W and approximately 2.0 feet below the existing grade and approximately 4 feet long. However; upon further analysis with environmental sampling, this anomaly is not likely a UST.

4.0 LIMITATIONS

It should be noted that the process relies on instrument signals to indicate physical conditions in the field. Signal information can be affected by on-site conditions beyond the control of the operator, such as, but not limited to, cultural features, concrete/soil types, concrete/soil moisture, groundwater table depth, and/or reinforcing steel spacing. Interpretation of those signals is based on a combination of known factors combined with the experience of the operator and geophysical scientist evaluating the results. GPR is not able to provide accurate information regarding an anomaly's diameter/width. Further details on the location of this anomaly is provided in Appendix A. The depth of GPR signal penetration across the site was approximately 6 feet below the existing grade. Utilizing conventional observation, sampling, and testing of select areas are recommended to confirm the results from the geophysical surveys. As with all geophysical

Report for GeoEnvironmental Phase II Site Investigations

NCDOT Project U-6058 – Parcel 6 ■ Beaufort, NC

May 11, 2020 ■ Terracon Project No. 72207023



methods, the geophysical results provide a level of confidence, but should not be considered absolute. We cannot be responsible for the interpretation of geophysical results by others.

4.0 CLOSURE

We appreciate the opportunity to work with you on this project. Please do not hesitate to contact the undersigned if you have any questions regarding this information or if we can be of further service to you.

Sincerely,

Terracon Consultants, Inc.

Joshua A. Lopez
Geophysicist

James D. Hoskins, III, P.E.
Principal / Greensboro Office Manager

Attachments: Appendix A – Geophysical Exploration Results

SITE LOCATION

NCDOT Project U-6058 - Parcel #6 ■ Beaufort, North Carolina
May 11, 2020 ■ Terracon Project No. 72207023



EXPLORATION PLAN

NCDOT Project U-6058 - Parcel #6 ■ Beaufort, North Carolina
May 11, 2020 ■ Terracon Project No. 72207023



EXPLORATION RESULTS

NCDOT Project U-6058 - Parcel #6 ■ Beaufort, North Carolina
May 11, 2020 ■ Terracon Project No. 72207023

Parcel #6 – GPR Results

Legend

— : GPR Cross-Section

■ : Anomaly Consistent with UST

A A'

34.725053° N, 76.647537° W

Google Earth

© 2020 Google

70

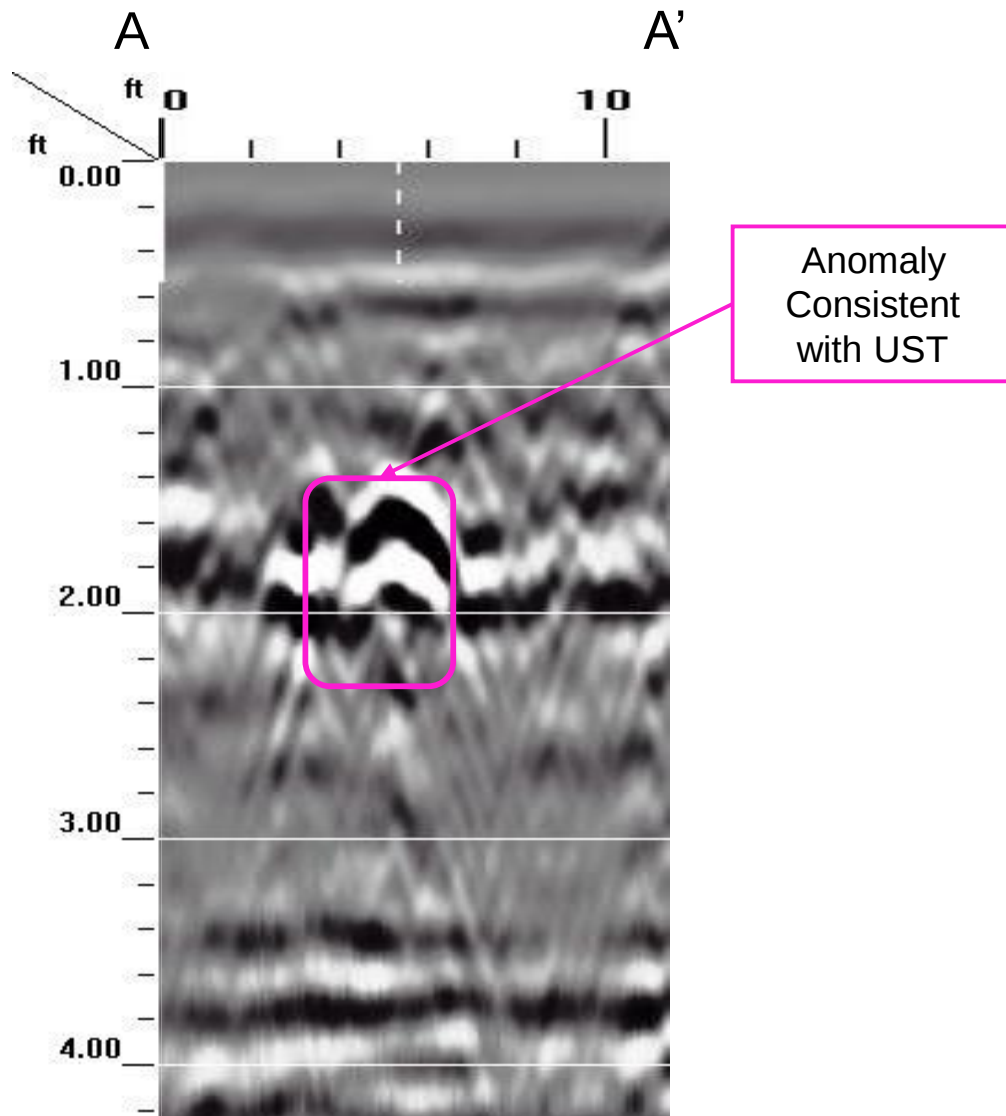
100 ft



EXPLORATION RESULTS

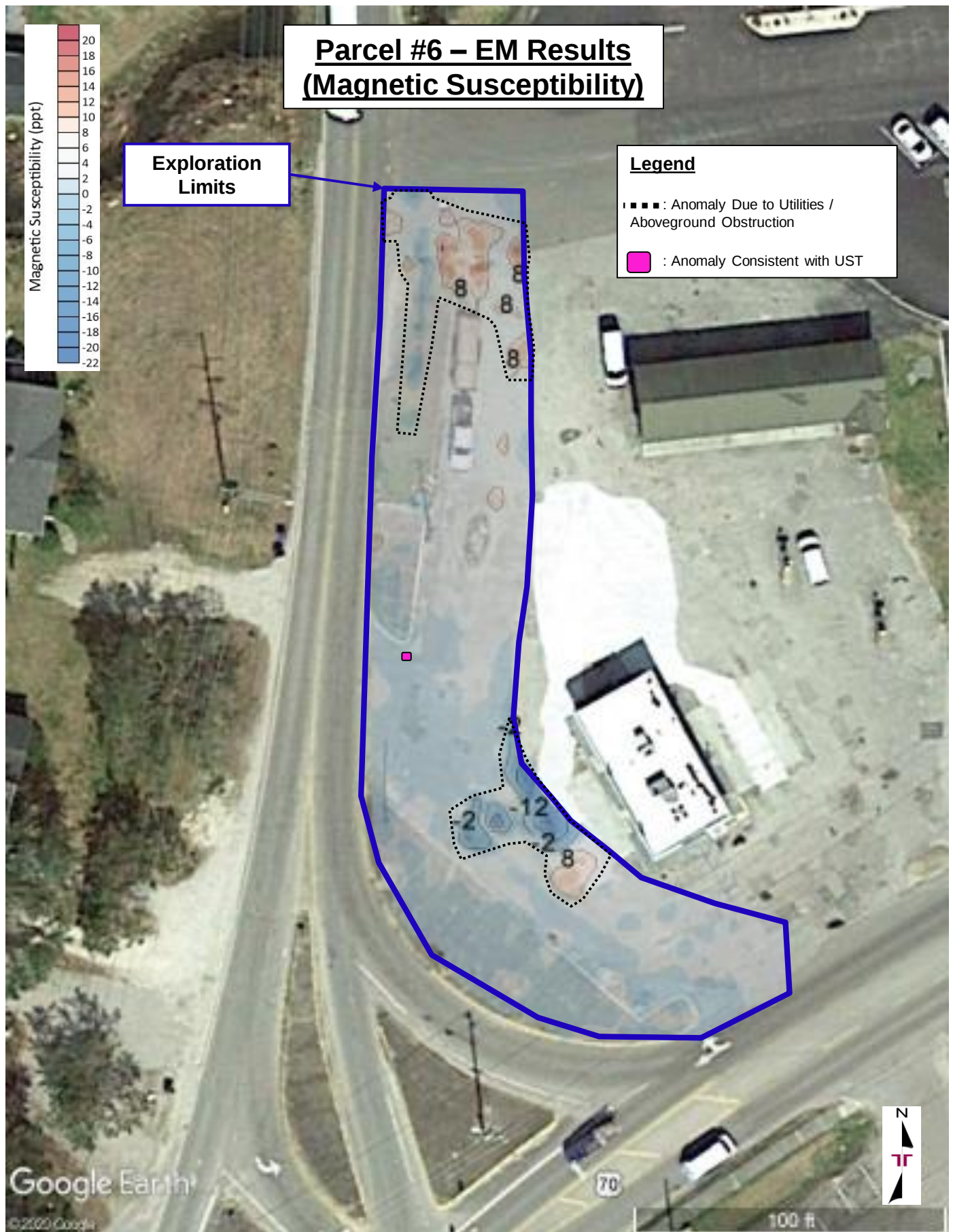
NCDOT Project U-6058 - Parcel #6 ■ Beaufort, North Carolina
May 11, 2020 ■ Terracon Project No. 72207023

Parcel #6 – GPR Cross-Section



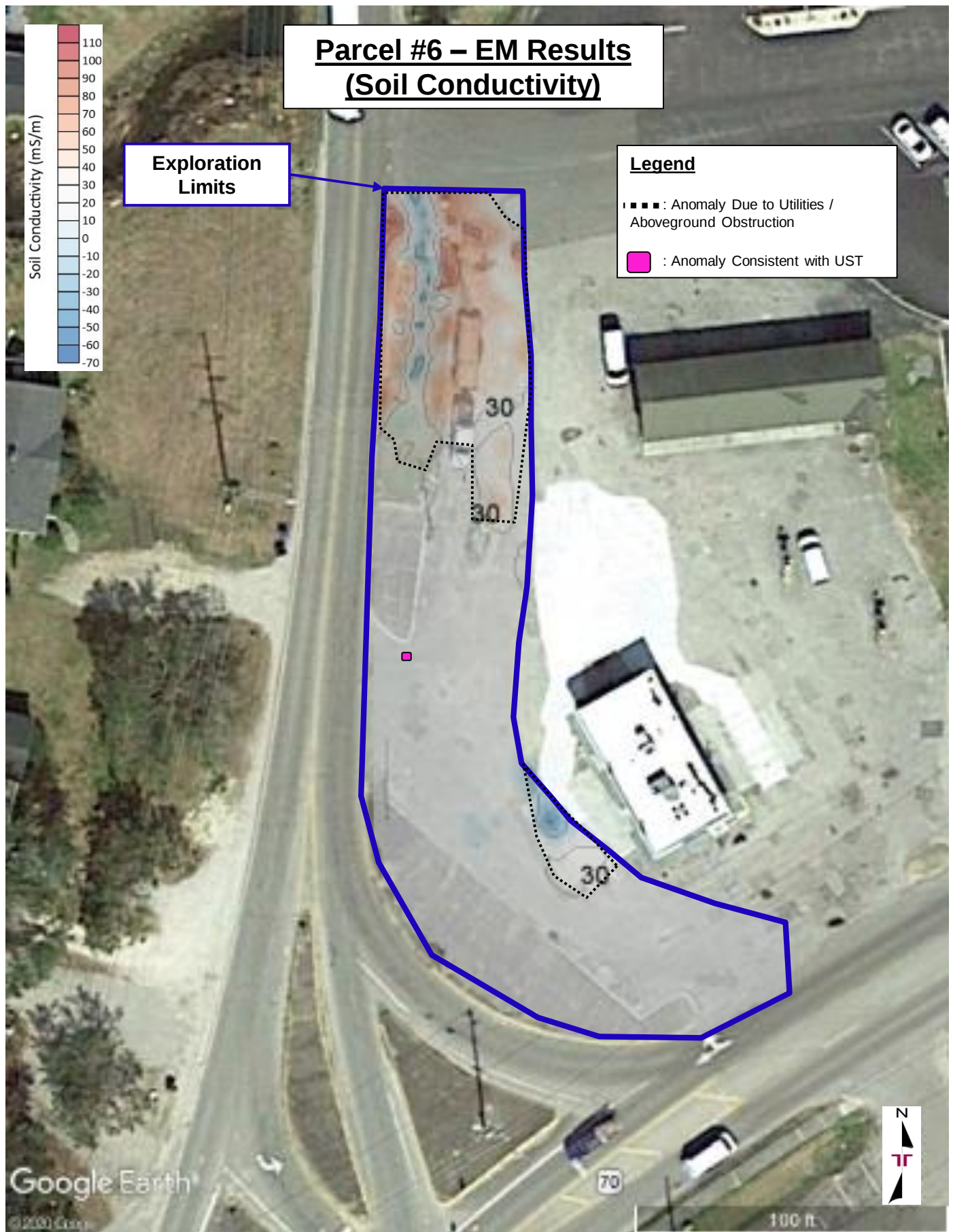
EXPLORATION RESULTS

NCDOT Project U-6058 - Parcel #6 ■ Beaufort, North Carolina
May 11, 2020 ■ Terracon Project No. 72207023



EXPLORATION RESULTS

NCDOT Project U-6058 - Parcel #6 ■ Beaufort, North Carolina
May 11, 2020 ■ Terracon Project No. 72207023



APPENDIX B
SOIL BORING LOGS

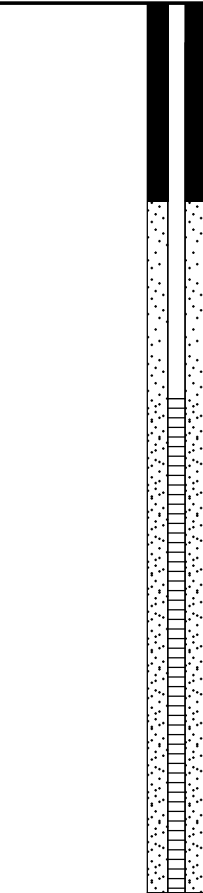
WELL LOG NO. B-1/TW-1

Page 1 of 1

PROJECT: Preliminary Site Assessment

CLIENT: NCDOT
Raleigh, North Carolina

SITE: Parcel # 6 - Jeanne D. Huntley
1501 Live Oak Street
Beaufort, Carteret County, North Carolina

GRAPHIC LOG	LOCATION	INSTALLATION DETAILS		DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	OVA/PID (ppm)	SAMPLE SENT TO LAB (ID NUMBER)
	See Exhibit 2	Well Completion: Temporary							
DEPTH	MATERIAL DESCRIPTION								
	SILTY SAND (SM) , trace organics, dark brown, odor not observed, moist, staining not observed								
0.8	SILTY SAND (SM) , trace gravel, gray, moderate petroleum odor observed, moist, brick fragments observed between 1.8 and 2.0 feet bls							343.7	
2.0	SILTY SAND (SM) , trace clay, gray, strong petroleum odor observed, wet to saturated							42	
						Grab		1140	B-1 (2.5-5) QED UVF TW-1 VOCs via 8260, SVOCs via 8270
5.0									
8.0	SILTY SAND (SM) , with clay, gray, moderate petroleum odor observed, saturated							575.2	
9.0							44		
	MEDIUM SAND (SP) , trace silt, tan, slight petroleum odor observed, saturated							105.5	
10.0	Boring Terminated at 10 Feet								

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

Notes:

bls: below land surface
UVF: Ultraviolet fluorescence
VOCs: Volatile organic compounds
SVOCs: Semivolatile organic compounds

WATER LEVEL OBSERVATIONS

Depth to groundwater measured at 5.46 feet bls after temporary well installation

Terracon
2401 Brentwood Rd Ste 107
Raleigh, NC

Well Started: 04-28-2020

Well Completed: 04-28-2020

Drill Rig: 6625CP

Logger: ECD

Project No.: U-6058/72207023

Appendix B

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ADEM SMART LOG 72207023 PARCEL 6 BORING LOGS GPJ TERRACON.DATATEMPLATE.GDT 5/11/20

BORING LOG NO. B-2

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PROJECT: Preliminary Site Assessment

NCDOT
Raleigh, North Carolina

SITE: Parcel # 6 - Jeanne D. Huntley
1501 Live Oak Street
Beaufort, Carteret County, North Carolina

GRAPHIC LOG	LOCATION	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	OVA/PID (ppm)	SAMPLE SENT TO LAB (ID NUMBER)
	See Exhibit 2						
	DEPTH MATERIAL DESCRIPTION						
	0.5 SILTY SAND (SM) , trace organics, dark brown, odor not observed, moist						
	0.7 ASPHALT						
	1.0 SILTY SAND (SM) , with gravel, light brown, odor not observed, moist						
	SILTY SAND (SM) , with clay, dark brown, odor not observed, saturated at 2.5 feet bls					0.2	
					40		
	3.5						
	SILTY SAND (SM) , with clay, orangish brown, odor not observed, saturated					0.4	
	5.0						
	SILTY SAND (SM) , with clay, gray and light gray, strong petroleum odor observed, saturated, gray staining observed	5		Grab		116.7	B-2 (5-7.5) QED UVF
	7.5						
	MEDIUM SAND (SP) , trace silt, light gray, slight petroleum odor observed, saturated				60		
						10.2	
	10.0						
	Boring Terminated at 10 Feet	10					

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: 2.25-inch DPT		Notes: bls: below land surface UVF: Ultraviolet fluorescence	
Abandonment Method: Boring backfilled with soil cuttings upon completion.			
WATER LEVEL OBSERVATIONS	 2401 Brentwood Rd Ste 107 Raleigh, NC	Boring Started: 04-28-2020	Boring Completed: 04-28-2020
		Drill Rig: 6625CP	Logger: ECD
		Project No.: U-6058/72207023	Appendix B

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ADEM SMART LOG 72207023 PARCEL 6 BORING LOGS.GPJ TERRACON_DATATEMPLATE.GDT 5/11/20

BORING LOG NO. B-3

Page 1 of 1

PROJECT: Preliminary Site Assessment

NCDOT
Raleigh, North Carolina

SITE: Parcel # 6 - Jeanne D. Huntley
1501 Live Oak Street
Beaufort, Carteret County, North Carolina

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ADEM SMART LOG 72207023_PARCEL 6 BORING LOGS.GPJ TERRACON.DATATEMPLATE.GDT 5/11/20

GRAPHIC LOG	LOCATION	See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	OVA/PID (ppm)	SAMPLE SENT TO LAB (ID NUMBER)
DEPTH	MATERIAL DESCRIPTION							
0.2	CONCRETE							
	SILTY SAND (SM) , trace clay, trace gravel, light brown and light gray, odor not observed, moist						0.9	
1.5	CLAYEY SAND (SC) , gray with orangish brown mottling, slight to strong petroleum odor observed at 4 feet bls, moist to wet at 3 feet bls					42		
					Grab		240	B-3 (2.5-5) QED UVF
5.5	MEDIUM SAND (SP) , trace silt, light gray, slight petroleum odor observed, saturated						18.6	
						52		
							18.4	
10.0	Boring Terminated at 10 Feet		10					

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: 2.25-inch DPT		Notes: bls: below land surface UVF: Ultraviolet fluorescence	
Abandonment Method: Boring backfilled with soil cuttings upon completion.			
WATER LEVEL OBSERVATIONS	 2401 Brentwood Rd Ste 107 Raleigh, NC	Boring Started: 04-28-2020	Boring Completed: 04-28-2020
		Drill Rig: 6625CP	Logger: ECD
		Project No.: U-6058/72207023	Appendix B

BORING LOG NO. B-4

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PROJECT: Preliminary Site Assessment

NCDOT
Raleigh, North Carolina

SITE: Parcel # 6 - Jeanne D. Huntley
1501 Live Oak Street
Beaufort, Carteret County, North Carolina

GRAPHIC LOG	LOCATION	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	OVA/PID (ppm)	SAMPLE SENT TO LAB (ID NUMBER)
	See Exhibit 2						
	DEPTH MATERIAL DESCRIPTION						
	ASPHALT AND AGGREGATE BASE COURSE						
	1.0					2.8	
	CLAYEY SAND (SC) , gray with orangish brown mottling, odor not observed, moist to saturated at 4 feet bls				46	0.6	
	5.0	5		Grab		22.3	B-4 (5-7.5) QED UVF
	MEDIUM SAND (SP) , trace silt, light gray and orangish brown from 7 to 7.5 feet bls, slight to moderate petroleum odor observed, saturated				60	6.4	
	10.0	10					
	Boring Terminated at 10 Feet						

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

bls: below land surface
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS

Terracon
2401 Brentwood Rd Ste 107
Raleigh, NC

Boring Started: 04-28-2020

Drill Rig: 6625CP

Project No.: U-6058/72207023

Boring Completed: 04-28-2020

Logger: ECD

Appendix B

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ADEM SMART LOG 72207023 PARCEL 6 BORING LOGS.GPJ TERRACON.DATATEMPLATE.GDT 5/11/20

BORING LOG NO. B-5

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PROJECT: Preliminary Site Assessment

NCDOT
Raleigh, North Carolina

SITE: Parcel # 6 - Jeanne D. Huntley
1501 Live Oak Street
Beaufort, Carteret County, North Carolina

GRAPHIC LOG	LOCATION	See Exhibit 2		DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	OVA/PID (ppm)	SAMPLE SENT TO LAB (ID NUMBER)
	DEPTH	MATERIAL DESCRIPTION							
	0.4	ASPHALT							
		SILTY SAND (SM) , with clay, gray with orangish brown mottling, slight petroleum odor observed at 4 feet bls, moist to wet at 4 feet bls, concrete fragments observed between 0.7 and 0.9 feet bls						10.8	
							36		
								8.5	
	4.5	MEDIUM SAND (SP) , trace silt, light gray and orangish brown from 6.5 to 7.5 feet bls, slight to moderate petroleum odor observed, saturated		5					
								23.6	
							60		
					Grab			23.9	B-5 (7.5-10) QED UVF
	10.0	Boring Terminated at 10 Feet		10					

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

bls: below land surface
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS

Terracon
2401 Brentwood Rd Ste 107
Raleigh, NC

Boring Started: 04-28-2020

Boring Completed: 04-28-2020

Drill Rig: 6625CP

Logger: ECD

Project No.: U-6058/72207023

Appendix B

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ADEM SMART LOG 72207023 PARCEL 6 BORING LOGS.GPJ TERRACON_DATATEMPLATE.GDT 5/11/20

BORING LOG NO. B-6

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PROJECT: Preliminary Site Assessment

NCDOT
Raleigh, North Carolina

SITE: Parcel # 6 - Jeanne D. Huntley
1501 Live Oak Street
Beaufort, Carteret County, North Carolina

GRAPHIC LOG	LOCATION	See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	OVA/PID (ppm)	SAMPLE SENT TO LAB (ID NUMBER)
DEPTH	MATERIAL DESCRIPTION							
0.3	CONCRETE							
	SILTY SAND (SM) , trace gravel, dark brown and brown, odor not observed, moist							
1.0	CLAYEY SAND (SC) , light gray, odor not observed, moist						<0.1	
						42		
							<0.1	
5.0	MEDIUM SAND (SP) , trace silt, light gray, slight petroleum odor observed between 9 and 10 feet bls, saturated		5					
							<0.1	
					60			
				Grab		0.5		B-6 (7.5-10) QED UVF
10.0	Boring Terminated at 10 Feet		10					

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

bls: below land surface
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS

Terracon
2401 Brentwood Rd Ste 107
Raleigh, NC

Boring Started: 04-28-2020

Boring Completed: 04-28-2020

Drill Rig: 6625CP

Logger: ECD

Project No.: U-6058/72207023

Appendix B

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ADEM SMART LOG 72207023 PARCEL 6 BORING LOGS.GPJ TERRACON.DATATEMPLATE.GDT 5/11/20

BORING LOG NO. B-7

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PROJECT: Preliminary Site Assessment

NCDOT
Raleigh, North Carolina

SITE: Parcel # 6 - Jeanne D. Huntley
1501 Live Oak Street
Beaufort, Carteret County, North Carolina

GRAPHIC LOG	LOCATION	See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	OVA/PID (ppm)	SAMPLE SENT TO LAB (ID NUMBER)
DEPTH	MATERIAL DESCRIPTION							
0.2	ASPHALT							
	SILTY SAND (SM) , clay layers throughout, trace gravel from 0.2 to 1 feet bls, brown, odor not observed, moist						<0.1	
5.0	SILTY SAND (SM) , trace clay, light gray, odor not observed, wet		5			42	<0.1	
6.0	MEDIUM SAND (SP) , trace silt, light gray, slight petroleum odor observed between 8 and 10 feet bls, saturated						<0.1	
					Grab	50	8.1	B-7 (7.5-10) QED UVF
10.0	Boring Terminated at 10 Feet		10					

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

bls: below land surface
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS

Terracon
2401 Brentwood Rd Ste 107
Raleigh, NC

Boring Started: 04-28-2020

Drill Rig: 6625CP

Project No.: U-6058/72207023

Boring Completed: 04-28-2020

Logger: ECD

Appendix B

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ADEM SMART LOG 72207023 PARCEL 6 BORING LOGS.GPJ TERRACON.DATATEMPLATE.GDT 5/11/20

BORING LOG NO. B-8

Page 1 of 1

PROJECT: Preliminary Site Assessment

NCDOT
Raleigh, North Carolina

SITE: Parcel # 6 - Jeanne D. Huntley
1501 Live Oak Street
Beaufort, Carteret County, North Carolina

GRAPHIC LOG	LOCATION	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	OVA/PID (ppm)	SAMPLE SENT TO LAB (ID NUMBER)
	See Exhibit 2						
	DEPTH	MATERIAL DESCRIPTION					
	0.5	CONCRETE					
	1.0	SM - SILTY SAND (SM) , trace shell fragments, brown and dark brown, odor not observed, moist					
	1.0	CLAYEY SAND (SC) , light brown and gray, odor not observed, moist				<0.1	
	5.0	SILTY SAND (SM) , light gray and brown, odor not observed, saturated		Grab		<0.1	B-8 (5-7.5) QED UVF
	10.0	Boring Terminated at 10 Feet					

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

bls: below land surface
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS

Terracon
2401 Brentwood Rd Ste 107
Raleigh, NC

Boring Started: 04-28-2020

Drill Rig: 6625CP

Project No.: U-6058/72207023

Boring Completed: 04-28-2020

Logger: ECD

Appendix B

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ADEM SMART LOG 72207023 PARCEL 6 BORING LOGS.GPJ TERRACON.DATATEMPLATE.GDT 5/11/20

BORING LOG NO. B-9

Page 1 of 1

PROJECT: Preliminary Site Assessment

NCDOT
Raleigh, North Carolina

SITE: Parcel # 6 - Jeanne D. Huntley
1501 Live Oak Street
Beaufort, Carteret County, North Carolina

GRAPHIC LOG	LOCATION	See Exhibit 2		DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	OVA/PID (ppm)	SAMPLE SENT TO LAB (ID NUMBER)
	DEPTH	MATERIAL DESCRIPTION							
	0.4	ASPHALT							
		CLAYEY SAND (SC) , trace gravel from 0.4 to 1 feet bls, gray, odor not observed, moist						<0.1	
							54		
								<0.1	
	6.0	SILTY SAND (SM) , light brown and brown, odor not observed, saturated				Grab			
								<0.1	B-9 (5-7.5) QED UVF
							56		
								<0.1	
	10.0	Boring Terminated at 10 Feet							

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
2.25-inch DPT

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

bls: below land surface
UVF: Ultraviolet fluorescence

WATER LEVEL OBSERVATIONS

Terracon
2401 Brentwood Rd Ste 107
Raleigh, NC

Boring Started: 04-28-2020

Boring Completed: 04-28-2020

Drill Rig: 6625CP

Logger: ECD

Project No.: U-6058/72207023

Appendix B

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ADEM SMART LOG 72207023 PARCEL 6 BORING LOGS.GPJ TERRACON.DATATEMPLATE.GDT 5/11/20

APPENDIX C
LABROATORY ANALYTICAL REPORTS AND
CHAIN-OF-CUSTODY RECORDS



Hydrocarbon Analysis Results

Client: TERRACON
Address: 314 BEACON DR
WINTERVILLE NC

Samples taken
Samples extracted
Samples analysed

Tuesday, April 28, 2020
Tuesday, April 28, 2020
Thursday, April 30, 2020

Contact: ALLEN MCCALL

Operator

JENN RYAN

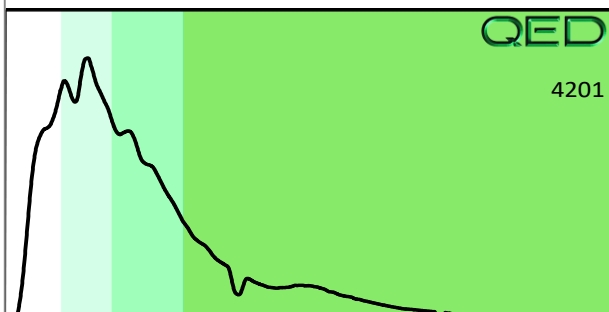
Project: NCDOT Project U-6058 Parcel 6

													U04049	
Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match	
										% light	% mid	% heavy		
s	B - 1	896.0	142.6	1911	280.4	2191.4	216.6	9.7	<0.9	97.7	2.2	0.1	Deg.Gas 73.9%,(FCM)	
s	B - 2	33.6	<0.84	<0.84	114.4	114.4	56.7	3.6	<0.034	0	93.5	6.5	Deg.Fuel 76.9%,(FCM)	
s	B - 3	33.1	<1.7	5.7	2.9	8.6	2.5	0.94	<0.033	83.2	15.3	1.5	Light Coal Tar 86.4%,(FCM)	
s	B - 4	13.9	<0.35	0.8	<0.35	0.8	<0.07	<0.11	<0.014	86.8	11.8	1.4	V.Deg.PHC 74.6%,(FCM)	
s	B - 5	23.6	<0.59	<0.59	<0.59	<0.59	<0.12	<0.19	<0.024	0	0	0	PHC not detected,(BO)	
s	B - 6	22.4	<0.56	<0.56	<0.56	<0.56	<0.11	<0.18	<0.022	0	0	0	PHC not detected	
s	B - 7	23.0	<0.58	<0.58	2.5	2.5	1.4	<0.18	<0.023	0	83.3	16.7	V.Deg.PHC 92.8%,(FCM)	
s	B - 8	22.4	<0.56	<0.56	0.84	0.84	0.38	<0.18	<0.022	0	86.1	13.9	V.Deg.PHC 94.7%,(FCM)	
s	B - 9	11.7	<0.29	<0.29	0.29	0.29	0.2	<0.09	<0.012	0	83.6	16.4	V.Deg.PHC 77.5%,(FCM)	
	Initial Calibrator QC check			OK						Final FCM QC Check		OK		112.9 %

Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content

Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library (SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present

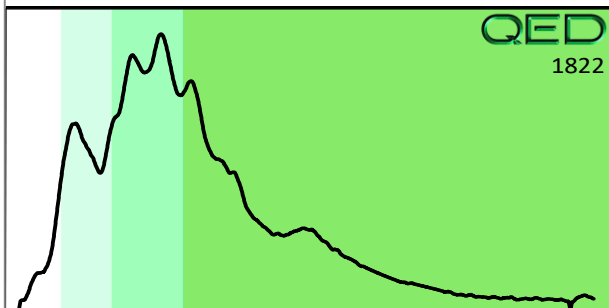
B - 1 : Deg.Gas 73.9%,(FCM)



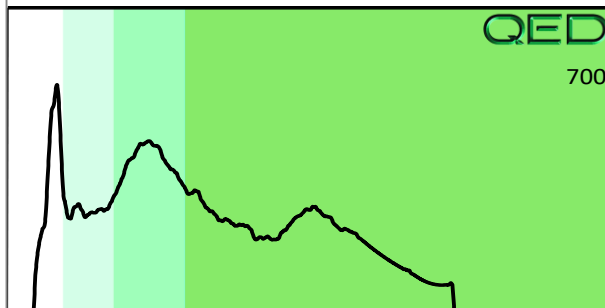
B - 2 : Deg.Fuel 76.9%,(FCM)



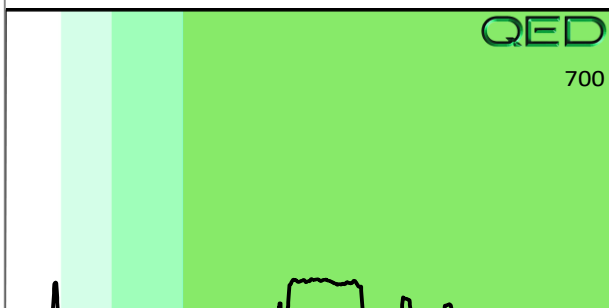
B - 3 : Light Coal Tar 86.4%,(FCM)



B - 4 : V.Deg.PHC 74.6%,(FCM)



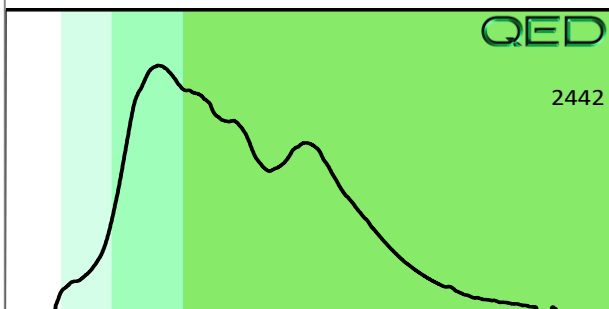
B - 5 : PHC not detected,(BO)



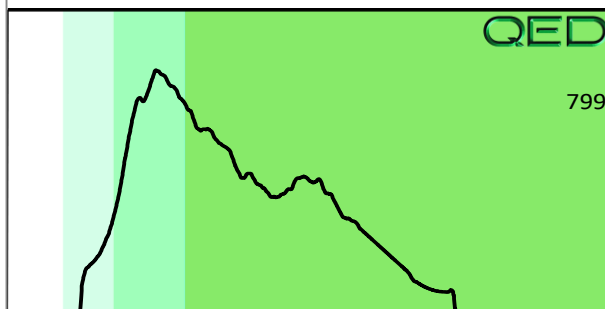
B - 6 : PHC not detected



B - 7 : V.Deg.PHC 92.8%,(FCM)



B - 8 : V.Deg.PHC 94.7%,(FCM)



B - 9 : V.Deg.PHC 77.5%,(FCM)



Client Name: <u>Terracon</u>		REDLAB™ RAPID ENVIRONMENTAL DIAGNOSTICS		RED Lab, LLC 5598 Marvin K Moss Lane MARBIONC Bldg, Suite 2003 Wilmington, NC 28409						
Address: <u>314 Beacon Pt Wilmington, NC</u>				Each UVF sample will be analyzed for total BTEX, GRO, DRO, TPH, PAH total aromatics and BaP. Standard GC Analyses are for BTEX and Chlorinated Solvents: VC, 1,1 DCE, 1,2 cis DCE, 1,2 trans DCE, TCE, and PCE. Specify target analytes in the space provided below.						
Contact: <u>Allen McGill</u>										
Project Ref.: <u>72207023</u>										
Email: <u>allen.mcgill@terracore.com</u>										
Phone #: <u>252-347-0743</u>										
Collected by: <u>Nick Saeed</u>		CHAIN OF CUSTODY AND ANALYTICAL REQUEST FORM								
Sample Collection		TAT Requested		Analysis Type		Initials	Sample ID	Total Wt.	Tare Wt.	Sample Wt.
Date/Time		24 Hour	48 Hour	UVF	GC					
4/26/2020 10:58			✓	✓			B-1	52.3	40.4	11.9
11:03							B-2	53.1	40.6	12.5
11:28							B-3	53.3	40.6	12.7
11:42							B-4	50.8	40.7	10.1
12:00							B-5	51.7	40.7	11
12:45							B-6	52.2	40.6	11.6
13:00							B-7	51.9	40.6	11.3
13:15							B-8	52.1	40.5	11.6
13:30							B-9	52.5	40.5	12
15:00							B-10	53.3	40.6	12.7
15:05							B-11	53	40.5	12.5
15:16							B-12	50.4	40.7	9.7
COMMENTS/REQUESTS:							TARGET GC/UVF ANALYTES:			
Relinquished by		Date		Accepted by		Date/Time		RED Lab USE ONLY 12 Ref. No		
<u>Allen McGill</u>		4/29/2020		<u>[Signature]</u>		4/30/2020				
Relinquished by				Accepted by		Date/Time				

May 08, 2020

Mr. Allen McColl
Terracon
314 Beacon Drive
Winterville, NC 28590

RE: Project: Beaufort NCDOT U-6058
Pace Project No.: 92475819

Dear Mr. McColl:

Enclosed are the analytical results for sample(s) received by the laboratory on May 01, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

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

Sincerely,



Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92475819001	TW-1	Water	04/28/20 14:36	05/01/20 09:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92475819001	TW-1	EPA 8270E	PKS	74	PASI-C
		SM 6200B	SAS	63	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

Sample: TW-1		Lab ID: 92475819001		Collected: 04/28/20 14:36		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	83-32-9	
Acenaphthylene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	208-96-8	
Aniline	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:05	62-53-3	
Anthracene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:05	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	1.8	1	05/05/20 14:25	05/06/20 16:05	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:05	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:05	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	207-08-9	
Benzoic Acid	ND	ug/L	50.0	19.5	1	05/05/20 14:25	05/06/20 16:05	65-85-0	
Benzyl alcohol	ND	ug/L	20.0	2.6	1	05/05/20 14:25	05/06/20 16:05	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1.2	1	05/05/20 14:25	05/06/20 16:05	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	1.9	1	05/05/20 14:25	05/06/20 16:05	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	10.0	2.8	1	05/05/20 14:25	05/06/20 16:05	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	2.8	1	05/05/20 14:25	05/06/20 16:05	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:05	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:05	111-44-4	
2-Chloronaphthalene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	7005-72-3	
Chrysene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:05	53-70-3	
Dibenzofuran	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:05	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	2.7	1	05/05/20 14:25	05/06/20 16:05	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	120-83-2	
Diethylphthalate	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:05	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:05	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	4.5	1	05/05/20 14:25	05/06/20 16:05	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	7.3	1	05/05/20 14:25	05/06/20 16:05	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:05	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:05	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	2.2	1	05/05/20 14:25	05/06/20 16:05	117-84-0	v1
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	2.0	1	05/05/20 14:25	05/06/20 16:05	117-81-7	
Fluoranthene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:05	206-44-0	
Fluorene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:05	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:05	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	2.4	1	05/05/20 14:25	05/06/20 16:05	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:05	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:05	193-39-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

Sample: TW-1		Lab ID: 92475819001		Collected: 04/28/20 14:36		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Isophorone	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:05	78-59-1	
1-Methylnaphthalene	1.4J	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1.2	1	05/05/20 14:25	05/06/20 16:05	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1.2	1	05/05/20 14:25	05/06/20 16:05	15831-10-4	
Naphthalene	2.0J	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:05	91-20-3	
2-Nitroaniline	ND	ug/L	20.0	3.0	1	05/05/20 14:25	05/06/20 16:05	88-74-4	
3-Nitroaniline	ND	ug/L	20.0	2.8	1	05/05/20 14:25	05/06/20 16:05	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	3.1	1	05/05/20 14:25	05/06/20 16:05	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:05	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	9.4	1	05/05/20 14:25	05/06/20 16:05	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.0	1.8	1	05/05/20 14:25	05/06/20 16:05	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:05	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:05	108-60-1	v1
Pentachlorophenol	ND	ug/L	20.0	2.8	1	05/05/20 14:25	05/06/20 16:05	87-86-5	
Phenanthrene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	85-01-8	
Phenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	108-95-2	
Pyrene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:05	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:05	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:05	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	78	%	13-130		1	05/05/20 14:25	05/06/20 16:05	4165-60-0	
2-Fluorobiphenyl (S)	70	%	13-130		1	05/05/20 14:25	05/06/20 16:05	321-60-8	
Terphenyl-d14 (S)	96	%	25-130		1	05/05/20 14:25	05/06/20 16:05	1718-51-0	
Phenol-d6 (S)	41	%	10-130		1	05/05/20 14:25	05/06/20 16:05	13127-88-3	
2-Fluorophenol (S)	46	%	10-130		1	05/05/20 14:25	05/06/20 16:05	367-12-4	
2,4,6-Tribromophenol (S)	65	%	10-137		1	05/05/20 14:25	05/06/20 16:05	118-79-6	
6200B MSV Analytical Method: SM 6200B Pace Analytical Services - Charlotte									
Benzene	15.0	ug/L	2.0	0.96	4		05/08/20 14:04	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.86	4		05/08/20 14:04	108-86-1	
Bromochloromethane	ND	ug/L	2.0	1.0	4		05/08/20 14:04	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.74	4		05/08/20 14:04	75-27-4	
Bromoform	ND	ug/L	2.0	1.6	4		05/08/20 14:04	75-25-2	
Bromomethane	ND	ug/L	20.0	6.9	4		05/08/20 14:04	74-83-9	M1
n-Butylbenzene	ND	ug/L	2.0	1.4	4		05/08/20 14:04	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.98	4		05/08/20 14:04	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	1.0	4		05/08/20 14:04	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.93	4		05/08/20 14:04	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.90	4		05/08/20 14:04	108-90-7	
Chloroethane	ND	ug/L	4.0	2.3	4		05/08/20 14:04	75-00-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

Sample: TW-1		Lab ID: 92475819001		Collected: 04/28/20 14:36		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B Pace Analytical Services - Charlotte							
Chloroform	ND	ug/L	2.0	1.4	4		05/08/20 14:04	67-66-3	
Chloromethane	ND	ug/L	4.0	1.7	4		05/08/20 14:04	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.83	4		05/08/20 14:04	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.82	4		05/08/20 14:04	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1.5	4		05/08/20 14:04	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	1.6	4		05/08/20 14:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.92	4		05/08/20 14:04	106-93-4	
Dibromomethane	ND	ug/L	2.0	1.2	4		05/08/20 14:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.96	4		05/08/20 14:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	1.0	4		05/08/20 14:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	1.0	4		05/08/20 14:04	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	1.1	4		05/08/20 14:04	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.98	4		05/08/20 14:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	1.1	4		05/08/20 14:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	2.0	0.87	4		05/08/20 14:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	0.83	4		05/08/20 14:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	1.0	4		05/08/20 14:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.73	4		05/08/20 14:04	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	1.4	4		05/08/20 14:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	1.1	4		05/08/20 14:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	1.4	4		05/08/20 14:04	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.0	1.4	4		05/08/20 14:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	2.0	1.6	4		05/08/20 14:04	10061-02-6	
Diisopropyl ether	ND	ug/L	2.0	1.3	4		05/08/20 14:04	108-20-3	
Ethylbenzene	11.7	ug/L	2.0	0.96	4		05/08/20 14:04	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	8.0	4.8	4		05/08/20 14:04	87-68-3	
Isopropylbenzene (Cumene)	2.0J	ug/L	2.0	0.95	4		05/08/20 14:04	98-82-8	
Methylene Chloride	ND	ug/L	8.0	6.0	4		05/08/20 14:04	75-09-2	
Methyl-tert-butyl ether	407	ug/L	2.0	1.8	4		05/08/20 14:04	1634-04-4	
Naphthalene	4.1J	ug/L	8.0	2.6	4		05/08/20 14:04	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.96	4		05/08/20 14:04	103-65-1	
Styrene	ND	ug/L	2.0	1.0	4		05/08/20 14:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	1.7	4		05/08/20 14:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.77	4		05/08/20 14:04	79-34-5	
Tetrachloroethene	ND	ug/L	2.0	0.93	4		05/08/20 14:04	127-18-4	
Toluene	ND	ug/L	2.0	0.91	4		05/08/20 14:04	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	8.0	3.1	4		05/08/20 14:04	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	8.0	1.7	4		05/08/20 14:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	2.0	1.1	4		05/08/20 14:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.93	4		05/08/20 14:04	79-00-5	
Trichloroethene	ND	ug/L	2.0	0.93	4		05/08/20 14:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	1.3	4		05/08/20 14:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	1.1	4		05/08/20 14:04	96-18-4	
1,2,4-Trimethylbenzene	3.6	ug/L	2.0	0.77	4		05/08/20 14:04	95-63-6	
1,3,5-Trimethylbenzene	6.5	ug/L	2.0	0.91	4		05/08/20 14:04	108-67-8	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

Sample: TW-1		Lab ID: 92475819001		Collected: 04/28/20 14:36		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B Pace Analytical Services - Charlotte							
Vinyl chloride	ND	ug/L	4.0	1.6	4		05/08/20 14:04	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.8	4		05/08/20 14:04	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.95	4		05/08/20 14:04	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	95	%	70-130		4		05/08/20 14:04	17060-07-0	
4-Bromofluorobenzene (S)	96	%	70-130		4		05/08/20 14:04	460-00-4	
Toluene-d8 (S)	100	%	70-130		4		05/08/20 14:04	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058
Pace Project No.: 92475819

QC Batch:	540498	Analysis Method:	SM 6200B
QC Batch Method:	SM 6200B	Analysis Description:	6200B MSV
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92475819001

METHOD BLANK: 2880887 Matrix: Water

Associated Lab Samples: 92475819001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	0.50	0.42	05/08/20 12:16	
1,1,1-Trichloroethane	ug/L	ND	0.50	0.28	05/08/20 12:16	
1,1,2,2-Tetrachloroethane	ug/L	ND	0.50	0.19	05/08/20 12:16	
1,1,2-Trichloroethane	ug/L	ND	0.50	0.23	05/08/20 12:16	
1,1-Dichloroethane	ug/L	ND	0.50	0.24	05/08/20 12:16	
1,1-Dichloroethene	ug/L	ND	0.50	0.22	05/08/20 12:16	
1,1-Dichloropropene	ug/L	ND	0.50	0.35	05/08/20 12:16	
1,2,3-Trichlorobenzene	ug/L	ND	2.0	0.78	05/08/20 12:16	
1,2,3-Trichloropropane	ug/L	ND	0.50	0.27	05/08/20 12:16	
1,2,4-Trichlorobenzene	ug/L	ND	2.0	0.44	05/08/20 12:16	
1,2,4-Trimethylbenzene	ug/L	ND	0.50	0.19	05/08/20 12:16	
1,2-Dibromo-3-chloropropane	ug/L	ND	1.0	0.38	05/08/20 12:16	
1,2-Dibromoethane (EDB)	ug/L	ND	0.50	0.23	05/08/20 12:16	
1,2-Dichlorobenzene	ug/L	ND	0.50	0.24	05/08/20 12:16	
1,2-Dichloroethane	ug/L	ND	0.50	0.26	05/08/20 12:16	
1,2-Dichloropropane	ug/L	ND	0.50	0.18	05/08/20 12:16	
1,3,5-Trimethylbenzene	ug/L	ND	0.50	0.23	05/08/20 12:16	
1,3-Dichlorobenzene	ug/L	ND	0.50	0.25	05/08/20 12:16	
1,3-Dichloropropane	ug/L	ND	0.50	0.34	05/08/20 12:16	
1,4-Dichlorobenzene	ug/L	ND	0.50	0.25	05/08/20 12:16	
2,2-Dichloropropane	ug/L	ND	0.50	0.28	05/08/20 12:16	
2-Chlorotoluene	ug/L	ND	0.50	0.21	05/08/20 12:16	
4-Chlorotoluene	ug/L	ND	0.50	0.21	05/08/20 12:16	
Benzene	ug/L	ND	0.50	0.24	05/08/20 12:16	
Bromobenzene	ug/L	ND	0.50	0.22	05/08/20 12:16	
Bromochloromethane	ug/L	ND	0.50	0.26	05/08/20 12:16	
Bromodichloromethane	ug/L	ND	0.50	0.18	05/08/20 12:16	
Bromoform	ug/L	ND	0.50	0.40	05/08/20 12:16	
Bromomethane	ug/L	ND	5.0	1.7	05/08/20 12:16	
Carbon tetrachloride	ug/L	ND	0.50	0.23	05/08/20 12:16	
Chlorobenzene	ug/L	ND	0.50	0.22	05/08/20 12:16	
Chloroethane	ug/L	ND	1.0	0.58	05/08/20 12:16	
Chloroform	ug/L	ND	0.50	0.35	05/08/20 12:16	
Chloromethane	ug/L	ND	1.0	0.42	05/08/20 12:16	
cis-1,2-Dichloroethene	ug/L	ND	0.50	0.21	05/08/20 12:16	
cis-1,3-Dichloropropene	ug/L	ND	0.50	0.36	05/08/20 12:16	
Dibromochloromethane	ug/L	ND	0.50	0.40	05/08/20 12:16	
Dibromomethane	ug/L	ND	0.50	0.31	05/08/20 12:16	
Dichlorodifluoromethane	ug/L	ND	0.50	0.28	05/08/20 12:16	
Diisopropyl ether	ug/L	ND	0.50	0.33	05/08/20 12:16	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058
Pace Project No.: 92475819

METHOD BLANK: 2880887

Matrix: Water

Associated Lab Samples: 92475819001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Ethylbenzene	ug/L	ND	0.50	0.24	05/08/20 12:16	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	1.2	05/08/20 12:16	
Isopropylbenzene (Cumene)	ug/L	ND	0.50	0.24	05/08/20 12:16	
m&p-Xylene	ug/L	ND	1.0	0.44	05/08/20 12:16	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.44	05/08/20 12:16	
Methylene Chloride	ug/L	ND	2.0	1.5	05/08/20 12:16	
n-Butylbenzene	ug/L	ND	0.50	0.35	05/08/20 12:16	
n-Propylbenzene	ug/L	ND	0.50	0.24	05/08/20 12:16	
Naphthalene	ug/L	ND	2.0	0.66	05/08/20 12:16	
o-Xylene	ug/L	ND	0.50	0.24	05/08/20 12:16	
sec-Butylbenzene	ug/L	ND	0.50	0.25	05/08/20 12:16	
Styrene	ug/L	ND	0.50	0.26	05/08/20 12:16	
tert-Butylbenzene	ug/L	ND	0.50	0.25	05/08/20 12:16	
Tetrachloroethene	ug/L	ND	0.50	0.23	05/08/20 12:16	
Toluene	ug/L	ND	0.50	0.23	05/08/20 12:16	
trans-1,2-Dichloroethene	ug/L	ND	0.50	0.26	05/08/20 12:16	
trans-1,3-Dichloropropene	ug/L	ND	0.50	0.39	05/08/20 12:16	
Trichloroethene	ug/L	ND	0.50	0.23	05/08/20 12:16	
Trichlorofluoromethane	ug/L	ND	1.0	0.34	05/08/20 12:16	
Vinyl chloride	ug/L	ND	1.0	0.41	05/08/20 12:16	
1,2-Dichloroethane-d4 (S)	%	96	70-130		05/08/20 12:16	
4-Bromofluorobenzene (S)	%	97	70-130		05/08/20 12:16	
Toluene-d8 (S)	%	102	70-130		05/08/20 12:16	

LABORATORY CONTROL SAMPLE: 2880888

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.4	97	60-140	
1,1,1-Trichloroethane	ug/L	50	45.1	90	60-140	
1,1,2,2-Tetrachloroethane	ug/L	50	46.4	93	60-140	
1,1,2-Trichloroethane	ug/L	50	49.4	99	60-140	
1,1-Dichloroethane	ug/L	50	42.5	85	60-140	
1,1-Dichloroethene	ug/L	50	43.4	87	60-140	
1,1-Dichloropropene	ug/L	50	47.2	94	60-140	
1,2,3-Trichlorobenzene	ug/L	50	45.3	91	60-140	
1,2,3-Trichloropropane	ug/L	50	45.8	92	60-140	
1,2,4-Trichlorobenzene	ug/L	50	48.6	97	60-140	
1,2,4-Trimethylbenzene	ug/L	50	44.7	89	60-140	
1,2-Dibromo-3-chloropropane	ug/L	50	49.1	98	60-140	
1,2-Dibromoethane (EDB)	ug/L	50	48.7	97	60-140	
1,2-Dichlorobenzene	ug/L	50	49.4	99	60-140	
1,2-Dichloroethane	ug/L	50	41.5	83	60-140	
1,2-Dichloropropane	ug/L	50	44.6	89	60-140	
1,3,5-Trimethylbenzene	ug/L	50	46.3	93	60-140	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

LABORATORY CONTROL SAMPLE: 2880888

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichlorobenzene	ug/L	50	49.6	99	60-140	
1,3-Dichloropropane	ug/L	50	47.1	94	60-140	
1,4-Dichlorobenzene	ug/L	50	49.0	98	60-140	
2,2-Dichloropropane	ug/L	50	46.8	94	60-140	
2-Chlorotoluene	ug/L	50	46.2	92	60-140	
4-Chlorotoluene	ug/L	50	47.0	94	60-140	
Benzene	ug/L	50	45.6	91	60-140	
Bromobenzene	ug/L	50	48.0	96	60-140	
Bromochloromethane	ug/L	50	45.8	92	60-140	
Bromodichloromethane	ug/L	50	46.6	93	60-140	
Bromoform	ug/L	50	49.1	98	60-140	
Bromomethane	ug/L	50	69.6	139	60-140	
Carbon tetrachloride	ug/L	50	47.5	95	60-140	
Chlorobenzene	ug/L	50	48.5	97	60-140	
Chloroethane	ug/L	50	34.8	70	60-140	
Chloroform	ug/L	50	44.9	90	60-140	
Chloromethane	ug/L	50	37.4	75	60-140	
cis-1,2-Dichloroethene	ug/L	50	41.8	84	60-140	
cis-1,3-Dichloropropene	ug/L	50	46.6	93	60-140	
Dibromochloromethane	ug/L	50	49.4	99	60-140	
Dibromomethane	ug/L	50	47.3	95	60-140	
Dichlorodifluoromethane	ug/L	50	48.6	97	60-140	
Diisopropyl ether	ug/L	50	39.0	78	60-140	
Ethylbenzene	ug/L	50	45.7	91	60-140	
Hexachloro-1,3-butadiene	ug/L	50	48.6	97	60-140	
Isopropylbenzene (Cumene)	ug/L	50	47.9	96	60-140	
m&p-Xylene	ug/L	100	91.7	92	60-140	
Methyl-tert-butyl ether	ug/L	50	47.1	94	60-140	
Methylene Chloride	ug/L	50	39.5	79	60-140	
n-Butylbenzene	ug/L	50	47.0	94	60-140	
n-Propylbenzene	ug/L	50	43.9	88	60-140	
Naphthalene	ug/L	50	47.4	95	60-140	
o-Xylene	ug/L	50	46.3	93	60-140	
sec-Butylbenzene	ug/L	50	45.3	91	60-140	
Styrene	ug/L	50	49.7	99	60-140	
tert-Butylbenzene	ug/L	50	38.5	77	60-140	
Tetrachloroethene	ug/L	50	48.7	97	60-140	
Toluene	ug/L	50	44.6	89	60-140	
trans-1,2-Dichloroethene	ug/L	50	43.1	86	60-140	
trans-1,3-Dichloropropene	ug/L	50	46.6	93	60-140	
Trichloroethene	ug/L	50	48.9	98	60-140	
Trichlorofluoromethane	ug/L	50	39.8	80	60-140	
Vinyl chloride	ug/L	50	48.6	97	60-140	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			2880889	2880890								
		92475819001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	80	80	83.9	86.2	105	108	60-140	3	30	
1,1,1-Trichloroethane	ug/L	ND	80	80	81.9	85.7	102	107	60-140	5	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	80	80	79.5	79.7	99	100	60-140	0	30	
1,1,2-Trichloroethane	ug/L	ND	80	80	82.8	85.3	104	107	60-140	3	30	
1,1-Dichloroethane	ug/L	ND	80	80	76.6	79.4	96	99	60-140	4	30	
1,1-Dichloroethene	ug/L	ND	80	80	81.6	84.0	102	105	60-140	3	30	
1,1-Dichloropropene	ug/L	ND	80	80	84.0	87.6	105	109	60-140	4	30	
1,2,3-Trichlorobenzene	ug/L	ND	80	80	71.9	75.7	90	95	60-140	5	30	
1,2,3-Trichloropropane	ug/L	ND	80	80	76.7	78.2	96	98	60-140	2	30	
1,2,4-Trichlorobenzene	ug/L	ND	80	80	78.2	83.0	98	104	60-140	6	30	
1,2,4-Trimethylbenzene	ug/L	3.6	80	80	80.2	83.0	96	99	60-140	4	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	80	80	81.6	82.3	102	103	60-140	1	30	
1,2-Dibromoethane (EDB)	ug/L	ND	80	80	82.7	84.1	103	105	60-140	2	30	
1,2-Dichlorobenzene	ug/L	ND	80	80	79.3	82.3	99	103	60-140	4	30	
1,2-Dichloroethane	ug/L	ND	80	80	72.7	74.1	91	93	60-140	2	30	
1,2-Dichloropropane	ug/L	ND	80	80	74.6	78.3	93	98	60-140	5	30	
1,3,5-Trimethylbenzene	ug/L	6.5	80	80	85.5	88.9	99	103	60-140	4	30	
1,3-Dichlorobenzene	ug/L	ND	80	80	80.4	82.5	101	103	60-140	3	30	
1,3-Dichloropropane	ug/L	ND	80	80	82.3	82.6	103	103	60-140	0	30	
1,4-Dichlorobenzene	ug/L	ND	80	80	79.8	81.5	100	102	60-140	2	30	
2,2-Dichloropropane	ug/L	ND	80	80	83.3	85.1	104	106	60-140	2	30	
2-Chlorotoluene	ug/L	ND	80	80	76.9	80.5	96	101	60-140	5	30	
4-Chlorotoluene	ug/L	ND	80	80	76.3	79.4	95	99	60-140	4	30	
Benzene	ug/L	15.0	80	80	93.3	97.9	98	104	60-140	5	30	
Bromobenzene	ug/L	ND	80	80	81.5	84.0	102	105	60-140	3	30	
Bromochloromethane	ug/L	ND	80	80	81.8	85.0	102	106	60-140	4	30	
Bromodichloromethane	ug/L	ND	80	80	76.0	82.3	95	103	60-140	8	30	
Bromoform	ug/L	ND	80	80	80.6	81.9	101	102	60-140	2	30	
Bromomethane	ug/L	ND	80	80	122	148	153	185	60-140	19	30	M1
Carbon tetrachloride	ug/L	ND	80	80	85.7	87.4	107	109	60-140	2	30	
Chlorobenzene	ug/L	ND	80	80	84.0	86.9	105	109	60-140	3	30	
Chloroethane	ug/L	ND	80	80	82.5	85.0	103	106	60-140	3	30	
Chloroform	ug/L	ND	80	80	79.7	81.5	100	102	60-140	2	30	
Chloromethane	ug/L	ND	80	80	72.3	73.0	90	91	60-140	1	30	
cis-1,2-Dichloroethene	ug/L	ND	80	80	74.7	77.1	93	96	60-140	3	30	
cis-1,3-Dichloropropene	ug/L	ND	80	80	77.4	80.7	97	101	60-140	4	30	
Dibromochloromethane	ug/L	ND	80	80	82.3	84.7	103	106	60-140	3	30	
Dibromomethane	ug/L	ND	80	80	82.2	87.6	103	110	60-140	6	30	
Dichlorodifluoromethane	ug/L	ND	80	80	95.1	98.4	119	123	60-140	3	30	
Diisopropyl ether	ug/L	ND	80	80	68.9	71.6	85	88	60-140	4	30	
Ethylbenzene	ug/L	11.7	80	80	90.8	92.8	99	101	60-140	2	30	
Hexachloro-1,3-butadiene	ug/L	ND	80	80	82.4	85.9	103	107	60-140	4	30	
Isopropylbenzene (Cumene)	ug/L	2.0J	80	80	85.1	87.3	104	107	60-140	3	30	
m&p-Xylene	ug/L	ND	160	160	159	165	100	103	60-140	4	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2880889 2880890											
Parameter	Units	92475819001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Methyl-tert-butyl ether	ug/L	407	80	80	479	478	90	89	60-140	0	30
Methylene Chloride	ug/L	ND	80	80	71.3	72.5	89	91	60-140	2	30
n-Butylbenzene	ug/L	ND	80	80	76.8	80.5	96	101	60-140	5	30
n-Propylbenzene	ug/L	ND	80	80	76.2	79.3	95	99	60-140	4	30
Naphthalene	ug/L	4.1J	80	80	80.3	82.9	95	98	60-140	3	30
o-Xylene	ug/L	ND	80	80	80.6	81.9	101	102	60-140	2	30
sec-Butylbenzene	ug/L	ND	80	80	78.1	80.0	98	100	60-140	2	30
Styrene	ug/L	ND	80	80	82.1	84.6	103	106	60-140	3	30
tert-Butylbenzene	ug/L	ND	80	80	67.1	69.7	84	87	60-140	4	30
Tetrachloroethene	ug/L	ND	80	80	85.7	88.2	107	110	60-140	3	30
Toluene	ug/L	ND	80	80	77.5	79.4	97	99	60-140	2	30
trans-1,2-Dichloroethene	ug/L	ND	80	80	79.6	81.2	100	102	60-140	2	30
trans-1,3-Dichloropropene	ug/L	ND	80	80	77.5	81.1	97	101	60-140	4	30
Trichloroethene	ug/L	ND	80	80	85.9	90.0	107	112	60-140	5	30
Trichlorofluoromethane	ug/L	ND	80	80	79.7	84.1	100	105	60-140	5	30
Vinyl chloride	ug/L	ND	80	80	93.3	97.7	117	122	60-140	5	30
1,2-Dichloroethane-d4 (S)	%						93	95	70-130		
4-Bromofluorobenzene (S)	%						99	98	70-130		
Toluene-d8 (S)	%						97	98	70-130		

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058
Pace Project No.: 92475819

QC Batch:	539742	Analysis Method:	EPA 8270E
QC Batch Method:	EPA 3510C	Analysis Description:	8270E Water MSSV RVE
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92475819001

METHOD BLANK: 2876883 Matrix: Water

Associated Lab Samples: 92475819001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	10.0	1.6	05/06/20 13:03	
1,2-Dichlorobenzene	ug/L	ND	10.0	1.4	05/06/20 13:03	
1,3-Dichlorobenzene	ug/L	ND	10.0	1.4	05/06/20 13:03	
1,4-Dichlorobenzene	ug/L	ND	10.0	1.5	05/06/20 13:03	
1-Methylnaphthalene	ug/L	ND	10.0	1.4	05/06/20 13:03	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	1.3	05/06/20 13:03	v1
2,4,5-Trichlorophenol	ug/L	ND	10.0	1.5	05/06/20 13:03	
2,4,6-Trichlorophenol	ug/L	ND	10.0	1.4	05/06/20 13:03	
2,4-Dichlorophenol	ug/L	ND	10.0	1.5	05/06/20 13:03	
2,4-Dimethylphenol	ug/L	ND	10.0	1.5	05/06/20 13:03	
2,4-Dinitrophenol	ug/L	ND	50.0	7.3	05/06/20 13:03	
2,4-Dinitrotoluene	ug/L	ND	10.0	1.7	05/06/20 13:03	
2,6-Dinitrotoluene	ug/L	ND	10.0	1.7	05/06/20 13:03	
2-Chloronaphthalene	ug/L	ND	10.0	1.4	05/06/20 13:03	
2-Chlorophenol	ug/L	ND	10.0	1.4	05/06/20 13:03	
2-Methylnaphthalene	ug/L	ND	10.0	1.4	05/06/20 13:03	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	1.2	05/06/20 13:03	
2-Nitroaniline	ug/L	ND	20.0	3.0	05/06/20 13:03	
2-Nitrophenol	ug/L	ND	10.0	1.7	05/06/20 13:03	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	1.2	05/06/20 13:03	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	2.7	05/06/20 13:03	
3-Nitroaniline	ug/L	ND	20.0	2.8	05/06/20 13:03	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	4.5	05/06/20 13:03	
4-Bromophenylphenyl ether	ug/L	ND	10.0	1.2	05/06/20 13:03	
4-Chloro-3-methylphenol	ug/L	ND	10.0	2.8	05/06/20 13:03	
4-Chloroaniline	ug/L	ND	20.0	2.8	05/06/20 13:03	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	1.5	05/06/20 13:03	
4-Nitroaniline	ug/L	ND	20.0	3.1	05/06/20 13:03	
4-Nitrophenol	ug/L	ND	50.0	9.4	05/06/20 13:03	
Acenaphthene	ug/L	ND	10.0	1.4	05/06/20 13:03	
Acenaphthylene	ug/L	ND	10.0	1.5	05/06/20 13:03	
Aniline	ug/L	ND	10.0	1.6	05/06/20 13:03	
Anthracene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Benzo(a)anthracene	ug/L	ND	10.0	1.5	05/06/20 13:03	
Benzo(a)pyrene	ug/L	ND	10.0	1.8	05/06/20 13:03	
Benzo(b)fluoranthene	ug/L	ND	10.0	1.7	05/06/20 13:03	
Benzo(g,h,i)perylene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Benzo(k)fluoranthene	ug/L	ND	10.0	1.5	05/06/20 13:03	
Benzoic Acid	ug/L	ND	50.0	19.5	05/06/20 13:03	
Benzyl alcohol	ug/L	ND	20.0	2.6	05/06/20 13:03	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058
Pace Project No.: 92475819

METHOD BLANK: 2876883

Matrix: Water

Associated Lab Samples: 92475819001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	1.3	05/06/20 13:03	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	1.7	05/06/20 13:03	
bis(2-Ethylhexyl)phthalate	ug/L	ND	6.0	2.0	05/06/20 13:03	
Butylbenzylphthalate	ug/L	ND	10.0	1.9	05/06/20 13:03	
Chrysene	ug/L	ND	10.0	1.4	05/06/20 13:03	
Di-n-butylphthalate	ug/L	ND	10.0	1.6	05/06/20 13:03	
Di-n-octylphthalate	ug/L	ND	10.0	2.2	05/06/20 13:03	v1
Dibenz(a,h)anthracene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Dibenzofuran	ug/L	ND	10.0	1.3	05/06/20 13:03	
Diethylphthalate	ug/L	ND	10.0	1.6	05/06/20 13:03	
Dimethylphthalate	ug/L	ND	10.0	1.4	05/06/20 13:03	
Fluoranthene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Fluorene	ug/L	ND	10.0	1.4	05/06/20 13:03	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Hexachlorobenzene	ug/L	ND	10.0	1.3	05/06/20 13:03	
Hexachlorocyclopentadiene	ug/L	ND	10.0	2.4	05/06/20 13:03	
Hexachloroethane	ug/L	ND	10.0	1.3	05/06/20 13:03	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	1.7	05/06/20 13:03	
Isophorone	ug/L	ND	10.0	1.3	05/06/20 13:03	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	1.3	05/06/20 13:03	
N-Nitrosodimethylamine	ug/L	ND	10.0	1.8	05/06/20 13:03	
N-Nitrosodiphenylamine	ug/L	ND	10.0	1.4	05/06/20 13:03	
Naphthalene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Nitrobenzene	ug/L	ND	10.0	1.5	05/06/20 13:03	
Pentachlorophenol	ug/L	ND	20.0	2.8	05/06/20 13:03	
Phenanthrene	ug/L	ND	10.0	1.4	05/06/20 13:03	
Phenol	ug/L	ND	10.0	1.5	05/06/20 13:03	
Pyrene	ug/L	ND	10.0	1.5	05/06/20 13:03	
2,4,6-Tribromophenol (S)	%	78	10-137		05/06/20 13:03	
2-Fluorobiphenyl (S)	%	87	13-130		05/06/20 13:03	
2-Fluorophenol (S)	%	61	10-130		05/06/20 13:03	
Nitrobenzene-d5 (S)	%	99	13-130		05/06/20 13:03	
Phenol-d6 (S)	%	55	10-130		05/06/20 13:03	
Terphenyl-d14 (S)	%	133	25-130		05/06/20 13:03	S3

LABORATORY CONTROL SAMPLE: 2876884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	26.6	53	30-130	
1,2-Dichlorobenzene	ug/L	50	27.3	55	30-130	
1,3-Dichlorobenzene	ug/L	50	26.2	52	20-130	
1,4-Dichlorobenzene	ug/L	50	28.6	57	30-130	
1-Methylnaphthalene	ug/L	50	33.9	68	30-130	
2,2'-Oxybis(1-chloropropane)	ug/L	50	55.6	111	20-130	v1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

LABORATORY CONTROL SAMPLE: 2876884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L	50	40.4	81	40-130	
2,4,6-Trichlorophenol	ug/L	50	40.2	80	40-130	
2,4-Dichlorophenol	ug/L	50	41.8	84	31-130	
2,4-Dimethylphenol	ug/L	50	41.5	83	30-130	
2,4-Dinitrophenol	ug/L	250	212	85	30-130	
2,4-Dinitrotoluene	ug/L	50	47.9	96	49-130	
2,6-Dinitrotoluene	ug/L	50	47.5	95	50-130	
2-Chloronaphthalene	ug/L	50	34.0	68	30-130	
2-Chlorophenol	ug/L	50	41.4	83	30-130	
2-Methylnaphthalene	ug/L	50	33.9	68	30-130	
2-Methylphenol(o-Cresol)	ug/L	50	40.0	80	30-130	
2-Nitroaniline	ug/L	100	82.0	82	40-130	
2-Nitrophenol	ug/L	50	47.5	95	20-130	
3&4-Methylphenol(m&p Cresol)	ug/L	50	36.1	72	20-130	
3,3'-Dichlorobenzidine	ug/L	100	87.2	87	10-150	
3-Nitroaniline	ug/L	100	95.6	96	40-130	
4,6-Dinitro-2-methylphenol	ug/L	100	94.6	95	40-130	
4-Bromophenylphenyl ether	ug/L	50	37.4	75	30-130	
4-Chloro-3-methylphenol	ug/L	100	87.1	87	30-130	
4-Chloroaniline	ug/L	100	79.5	80	20-130	
4-Chlorophenylphenyl ether	ug/L	50	36.0	72	20-130	
4-Nitroaniline	ug/L	100	92.1	92	40-130	
4-Nitrophenol	ug/L	250	122	49	10-130	
Acenaphthene	ug/L	50	38.4	77	30-130	
Acenaphthylene	ug/L	50	40.5	81	30-130	
Aniline	ug/L	50	34.6	69	20-130	
Anthracene	ug/L	50	42.0	84	50-130	
Benzo(a)anthracene	ug/L	50	45.7	91	50-130	
Benzo(a)pyrene	ug/L	50	45.4	91	50-130	
Benzo(b)fluoranthene	ug/L	50	45.7	91	50-130	
Benzo(g,h,i)perylene	ug/L	50	46.4	93	50-130	
Benzo(k)fluoranthene	ug/L	50	46.4	93	50-130	
Benzoic Acid	ug/L	250	124	49	10-130	
Benzyl alcohol	ug/L	100	73.1	73	20-130	
bis(2-Chloroethoxy)methane	ug/L	50	41.1	82	30-130	
bis(2-Chloroethyl) ether	ug/L	50	42.2	84	30-130	
bis(2-Ethylhexyl)phthalate	ug/L	50	55.5	111	50-130	
Butylbenzylphthalate	ug/L	50	54.6	109	50-150	
Chrysene	ug/L	50	44.5	89	50-130	
Di-n-butylphthalate	ug/L	50	50.4	101	50-130	
Di-n-octylphthalate	ug/L	50	59.4	119	50-130 v1	
Dibenz(a,h)anthracene	ug/L	50	47.1	94	40-130	
Dibenzofuran	ug/L	50	38.2	76	40-130	
Diethylphthalate	ug/L	50	45.6	91	40-130	
Dimethylphthalate	ug/L	50	42.8	86	40-130	
Fluoranthene	ug/L	50	44.5	89	30-130	
Fluorene	ug/L	50	40.0	80	20-130	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

LABORATORY CONTROL SAMPLE: 2876884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachloro-1,3-butadiene	ug/L	50	23.3	47	10-130	
Hexachlorobenzene	ug/L	50	37.9	76	30-130	
Hexachlorocyclopentadiene	ug/L	50	22.0	44	10-150	
Hexachloroethane	ug/L	50	25.9	52	10-130	
Indeno(1,2,3-cd)pyrene	ug/L	50	46.4	93	40-130	
Isophorone	ug/L	50	45.6	91	30-130	
N-Nitroso-di-n-propylamine	ug/L	50	42.0	84	30-130	
N-Nitrosodimethylamine	ug/L	50	35.4	71	10-130	
N-Nitrosodiphenylamine	ug/L	50	41.5	83	30-130	
Naphthalene	ug/L	50	33.4	67	20-130	
Nitrobenzene	ug/L	50	41.7	83	20-130	
Pentachlorophenol	ug/L	100	84.4	84	10-140	
Phenanthrene	ug/L	50	41.5	83	50-130	
Phenol	ug/L	50	26.3	53	10-130	
Pyrene	ug/L	50	45.5	91	50-130	
2,4,6-Tribromophenol (S)	%			101	10-137	
2-Fluorobiphenyl (S)	%			82	13-130	
2-Fluorophenol (S)	%			72	10-130	
Nitrobenzene-d5 (S)	%			96	13-130	
Phenol-d6 (S)	%			56	10-130	
Terphenyl-d14 (S)	%			119	25-130	

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QUALIFIERS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

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.

TNTC - Too Numerous To Count

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 - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

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.

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.

ANALYTE QUALIFIERS

- | | |
|----|--|
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |
| S3 | Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample. |
| v1 | The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias. |

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475819

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92475819001	TW-1	EPA 3510C	539742	EPA 8270E	539942
92475819001	TW-1	SM 6200B	540498		

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	Document Name:	Document Revised: February 7, 2018
	Sample Condition Upon Receipt(SCUR)	Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐Eden ☐Greenwood ☐Huntersville ☒Raleigh ☐Mechanicsville ☐Sample Condition
Upon Receipt

Client Name:

Terracon

Project #:

WO#: 92475819

Courier:

☐ Commercial☐ Fed Ex☐ UPS☐ USPS☐ Client☐ Pace☐ Other: _____

92475819

Custody Seal Present?

☐ Yes☒ No

Seals Intact?

☐ Yes☐ No

Date/Initials Person Examining Contents:

S-1-20 SR

Packing Material:

☐ Bubble Wrap☒ Bubble Bags☐ None☐ Other

Thermometer:

☒ IR Gun ID: 92T061

Type of Ice:

☒ Wet☐ Blue☐ None

Biological Tissue Frozen?

☐ Yes☒ No☐ N/A

Cooler Temp (°C):

1.6

Correction Factor: Add/Subtract (°C)

+0.1

Temp should be above freezing to 6°C

Cooler Temp Corrected (°C):

1.7

☐ Samples out of temp criteria. Samples on Ice, cooling process has begunUSDA Regulated Soil ☒ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

☐ Yes ☒ NoDid 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.	
Dissolved analysis: Samples Field Filtered?	☐ Yes ☐ No ☒ N/A	8.	
Sample Labels Match COC?	☒ Yes ☐ No ☐ N/A	9.	
-Includes Date/Time/ID/Analysis Matrix: W7			
Headspace in VOA Vials (>5-6mm)?	☐ Yes ☒ No ☐ N/A	10.	
Trip Blank Present?	☐ Yes ☒ No ☐ N/A	11.	
Trip Blank Custody Seals Present?	☐ Yes ☐ No ☒ N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☒ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____

Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

	Document Name:	Document Revised: February 7, 2018
	Sample Condition Upon Receipt(SCUR)	Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Project #

WO#: 92475819

PM: PTE

Due Date: 05/08/20

CLIENT: 92-TrenWint

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3A-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																4											2		
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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).

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: _____ of _____	
Company: <u>TERILION</u>		Report To: <u>Allen McBot</u>		Attention:		2037277	
Address: <u>314 Braun Drive</u>		Copy To:		Company Name:			
Email To: <u>Allen.McBot@terilion.com</u>		Purchase Order No.: <u>73067023</u>		Address:		REGULATORY AGENCY	
Phone: <u>852-353-1600</u> Fax: <u>852-353-0002</u>		Project Name: <u>Braunfort McBot U-6058</u>		Price Quote Reference:			
Requested Due Date/AT: _____		Project Number: <u>73067023</u>		Price Project Manager:			
				Price Profile #:			
						☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER	
						☐ UST ☐ RCRA ☐ OTHER _____	
						Site Location	
						STATE: <u>NC</u>	

[illegible]

May 08, 2020

Mr. Allen McColl
Terracon
314 Beacon Drive
Winterville, NC 28590

RE: Project: Beaufort NCDOT U-6058
Pace Project No.: 92475821

Dear Mr. McColl:

Enclosed are the analytical results for sample(s) received by the laboratory on May 01, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

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

Sincerely,



Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92475821001	MW-2	Water	04/29/20 10:45	05/01/20 09:20
92475821002	MW-7	Water	04/29/20 11:05	05/01/20 09:20
92475821003	MW-8	Water	04/29/20 11:55	05/01/20 09:20
92475821004	MW-5	Water	04/29/20 12:15	05/01/20 09:20

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SAMPLE ANALYTE COUNT

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92475821001	MW-2	EPA 8270E	PKS	74	PASI-C
		SM 6200B	SAS	63	PASI-C
92475821002	MW-7	EPA 8270E	PKS	74	PASI-C
		SM 6200B	SAS	63	PASI-C
92475821003	MW-8	EPA 8270E	PKS	74	PASI-C
		SM 6200B	SAS	63	PASI-C
92475821004	MW-5	EPA 8270E	PKS	74	PASI-C
		SM 6200B	SAS	63	PASI-C

PASI-C = Pace Analytical Services - Charlotte

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-2		Lab ID: 92475821001		Collected: 04/29/20 10:45		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	83-32-9	
Acenaphthylene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	208-96-8	
Aniline	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:31	62-53-3	
Anthracene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:31	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	1.8	1	05/05/20 14:25	05/06/20 16:31	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:31	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:31	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	207-08-9	
Benzoic Acid	ND	ug/L	50.0	19.5	1	05/05/20 14:25	05/06/20 16:31	65-85-0	
Benzyl alcohol	ND	ug/L	20.0	2.6	1	05/05/20 14:25	05/06/20 16:31	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1.2	1	05/05/20 14:25	05/06/20 16:31	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	1.9	1	05/05/20 14:25	05/06/20 16:31	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	10.0	2.8	1	05/05/20 14:25	05/06/20 16:31	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	2.8	1	05/05/20 14:25	05/06/20 16:31	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:31	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:31	111-44-4	
2-Chloronaphthalene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	7005-72-3	
Chrysene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:31	53-70-3	
Dibenzofuran	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:31	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	2.7	1	05/05/20 14:25	05/06/20 16:31	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	120-83-2	
Diethylphthalate	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:31	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:31	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	4.5	1	05/05/20 14:25	05/06/20 16:31	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	7.3	1	05/05/20 14:25	05/06/20 16:31	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:31	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:31	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	2.2	1	05/05/20 14:25	05/06/20 16:31	117-84-0	v1
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	2.0	1	05/05/20 14:25	05/06/20 16:31	117-81-7	
Fluoranthene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:31	206-44-0	
Fluorene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:31	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:31	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	2.4	1	05/05/20 14:25	05/06/20 16:31	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:31	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:31	193-39-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-2		Lab ID: 92475821001		Collected: 04/29/20 10:45		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Isophorone	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:31	78-59-1	
1-Methylnaphthalene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1.2	1	05/05/20 14:25	05/06/20 16:31	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1.2	1	05/05/20 14:25	05/06/20 16:31	15831-10-4	
Naphthalene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:31	91-20-3	
2-Nitroaniline	ND	ug/L	20.0	3.0	1	05/05/20 14:25	05/06/20 16:31	88-74-4	
3-Nitroaniline	ND	ug/L	20.0	2.8	1	05/05/20 14:25	05/06/20 16:31	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	3.1	1	05/05/20 14:25	05/06/20 16:31	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:31	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	9.4	1	05/05/20 14:25	05/06/20 16:31	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.0	1.8	1	05/05/20 14:25	05/06/20 16:31	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:31	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:31	108-60-1	v1
Pentachlorophenol	ND	ug/L	20.0	2.8	1	05/05/20 14:25	05/06/20 16:31	87-86-5	
Phenanthrene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	85-01-8	
Phenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	108-95-2	
Pyrene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:31	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:31	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:31	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	58	%	13-130		1	05/05/20 14:25	05/06/20 16:31	4165-60-0	
2-Fluorobiphenyl (S)	52	%	13-130		1	05/05/20 14:25	05/06/20 16:31	321-60-8	
Terphenyl-d14 (S)	87	%	25-130		1	05/05/20 14:25	05/06/20 16:31	1718-51-0	
Phenol-d6 (S)	30	%	10-130		1	05/05/20 14:25	05/06/20 16:31	13127-88-3	
2-Fluorophenol (S)	34	%	10-130		1	05/05/20 14:25	05/06/20 16:31	367-12-4	
2,4,6-Tribromophenol (S)	47	%	10-137		1	05/05/20 14:25	05/06/20 16:31	118-79-6	
6200B MSV Analytical Method: SM 6200B Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.24	1		05/06/20 12:32	71-43-2	
Bromobenzene	ND	ug/L	0.50	0.22	1		05/06/20 12:32	108-86-1	
Bromochloromethane	ND	ug/L	0.50	0.26	1		05/06/20 12:32	74-97-5	
Bromodichloromethane	ND	ug/L	0.50	0.18	1		05/06/20 12:32	75-27-4	
Bromoform	ND	ug/L	0.50	0.40	1		05/06/20 12:32	75-25-2	
Bromomethane	ND	ug/L	5.0	1.7	1		05/06/20 12:32	74-83-9	L1
n-Butylbenzene	ND	ug/L	0.50	0.35	1		05/06/20 12:32	104-51-8	
sec-Butylbenzene	ND	ug/L	0.50	0.25	1		05/06/20 12:32	135-98-8	
tert-Butylbenzene	ND	ug/L	0.50	0.25	1		05/06/20 12:32	98-06-6	
Carbon tetrachloride	ND	ug/L	0.50	0.23	1		05/06/20 12:32	56-23-5	
Chlorobenzene	ND	ug/L	0.50	0.22	1		05/06/20 12:32	108-90-7	
Chloroethane	ND	ug/L	1.0	0.58	1		05/06/20 12:32	75-00-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-2		Lab ID: 92475821001		Collected: 04/29/20 10:45		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B Pace Analytical Services - Charlotte							
Chloroform	ND	ug/L	0.50	0.35	1		05/06/20 12:32	67-66-3	
Chloromethane	ND	ug/L	1.0	0.42	1		05/06/20 12:32	74-87-3	
2-Chlorotoluene	ND	ug/L	0.50	0.21	1		05/06/20 12:32	95-49-8	
4-Chlorotoluene	ND	ug/L	0.50	0.21	1		05/06/20 12:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.38	1		05/06/20 12:32	96-12-8	
Dibromochloromethane	ND	ug/L	0.50	0.40	1		05/06/20 12:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	0.50	0.23	1		05/06/20 12:32	106-93-4	
Dibromomethane	ND	ug/L	0.50	0.31	1		05/06/20 12:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.24	1		05/06/20 12:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.25	1		05/06/20 12:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.25	1		05/06/20 12:32	106-46-7	
Dichlorodifluoromethane	ND	ug/L	0.50	0.28	1		05/06/20 12:32	75-71-8	
1,1-Dichloroethane	ND	ug/L	0.50	0.24	1		05/06/20 12:32	75-34-3	
1,2-Dichloroethane	ND	ug/L	0.50	0.26	1		05/06/20 12:32	107-06-2	
1,1-Dichloroethene	ND	ug/L	0.50	0.22	1		05/06/20 12:32	75-35-4	
cis-1,2-Dichloroethene	1.2	ug/L	0.50	0.21	1		05/06/20 12:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.26	1		05/06/20 12:32	156-60-5	
1,2-Dichloropropane	ND	ug/L	0.50	0.18	1		05/06/20 12:32	78-87-5	
1,3-Dichloropropane	ND	ug/L	0.50	0.34	1		05/06/20 12:32	142-28-9	
2,2-Dichloropropane	ND	ug/L	0.50	0.28	1		05/06/20 12:32	594-20-7	
1,1-Dichloropropene	ND	ug/L	0.50	0.35	1		05/06/20 12:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.36	1		05/06/20 12:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.39	1		05/06/20 12:32	10061-02-6	
Diisopropyl ether	ND	ug/L	0.50	0.33	1		05/06/20 12:32	108-20-3	
Ethylbenzene	0.35J	ug/L	0.50	0.24	1		05/06/20 12:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.2	1		05/06/20 12:32	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	0.50	0.24	1		05/06/20 12:32	98-82-8	
Methylene Chloride	ND	ug/L	2.0	1.5	1		05/06/20 12:32	75-09-2	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.44	1		05/06/20 12:32	1634-04-4	
Naphthalene	ND	ug/L	2.0	0.66	1		05/06/20 12:32	91-20-3	
n-Propylbenzene	ND	ug/L	0.50	0.24	1		05/06/20 12:32	103-65-1	
Styrene	ND	ug/L	0.50	0.26	1		05/06/20 12:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.42	1		05/06/20 12:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.19	1		05/06/20 12:32	79-34-5	
Tetrachloroethene	2.0	ug/L	0.50	0.23	1		05/06/20 12:32	127-18-4	
Toluene	ND	ug/L	0.50	0.23	1		05/06/20 12:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.78	1		05/06/20 12:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.44	1		05/06/20 12:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.28	1		05/06/20 12:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.23	1		05/06/20 12:32	79-00-5	
Trichloroethene	0.80	ug/L	0.50	0.23	1		05/06/20 12:32	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.34	1		05/06/20 12:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	0.50	0.27	1		05/06/20 12:32	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.19	1		05/06/20 12:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.23	1		05/06/20 12:32	108-67-8	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-2		Lab ID: 92475821001		Collected: 04/29/20 10:45		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B Pace Analytical Services - Charlotte							
Vinyl chloride	ND	ug/L	1.0	0.41	1		05/06/20 12:32	75-01-4	
m&p-Xylene	ND	ug/L	1.0	0.44	1		05/06/20 12:32	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.24	1		05/06/20 12:32	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		05/06/20 12:32	17060-07-0	
4-Bromofluorobenzene (S)	98	%	70-130		1		05/06/20 12:32	460-00-4	
Toluene-d8 (S)	102	%	70-130		1		05/06/20 12:32	2037-26-5	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-7		Lab ID: 92475821002		Collected: 04/29/20 11:05		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	83-32-9	
Acenaphthylene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	208-96-8	
Aniline	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:57	62-53-3	
Anthracene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:57	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	1.8	1	05/05/20 14:25	05/06/20 16:57	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:57	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:57	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	207-08-9	
Benzoic Acid	ND	ug/L	50.0	19.5	1	05/05/20 14:25	05/06/20 16:57	65-85-0	
Benzyl alcohol	ND	ug/L	20.0	2.6	1	05/05/20 14:25	05/06/20 16:57	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1.2	1	05/05/20 14:25	05/06/20 16:57	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	1.9	1	05/05/20 14:25	05/06/20 16:57	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	10.0	2.8	1	05/05/20 14:25	05/06/20 16:57	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	2.8	1	05/05/20 14:25	05/06/20 16:57	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:57	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:57	111-44-4	
2-Chloronaphthalene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	7005-72-3	
Chrysene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:57	53-70-3	
Dibenzofuran	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:57	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	2.7	1	05/05/20 14:25	05/06/20 16:57	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	120-83-2	
Diethylphthalate	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:57	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	131-11-3	
Di-n-butylphthalate	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:57	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	4.5	1	05/05/20 14:25	05/06/20 16:57	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	7.3	1	05/05/20 14:25	05/06/20 16:57	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:57	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:57	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	2.2	1	05/05/20 14:25	05/06/20 16:57	117-84-0	v1
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	2.0	1	05/05/20 14:25	05/06/20 16:57	117-81-7	
Fluoranthene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:57	206-44-0	
Fluorene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:57	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:57	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	2.4	1	05/05/20 14:25	05/06/20 16:57	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:57	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:57	193-39-5	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-7		Lab ID: 92475821002		Collected: 04/29/20 11:05		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Isophorone	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:57	78-59-1	
1-Methylnaphthalene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1.2	1	05/05/20 14:25	05/06/20 16:57	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1.2	1	05/05/20 14:25	05/06/20 16:57	15831-10-4	
Naphthalene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:57	91-20-3	
2-Nitroaniline	ND	ug/L	20.0	3.0	1	05/05/20 14:25	05/06/20 16:57	88-74-4	
3-Nitroaniline	ND	ug/L	20.0	2.8	1	05/05/20 14:25	05/06/20 16:57	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	3.1	1	05/05/20 14:25	05/06/20 16:57	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1.7	1	05/05/20 14:25	05/06/20 16:57	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	9.4	1	05/05/20 14:25	05/06/20 16:57	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.0	1.8	1	05/05/20 14:25	05/06/20 16:57	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:57	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10.0	1.3	1	05/05/20 14:25	05/06/20 16:57	108-60-1	v1
Pentachlorophenol	ND	ug/L	20.0	2.8	1	05/05/20 14:25	05/06/20 16:57	87-86-5	
Phenanthrene	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	85-01-8	
Phenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	108-95-2	
Pyrene	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1.6	1	05/05/20 14:25	05/06/20 16:57	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1.5	1	05/05/20 14:25	05/06/20 16:57	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1.4	1	05/05/20 14:25	05/06/20 16:57	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	88	%	13-130		1	05/05/20 14:25	05/06/20 16:57	4165-60-0	
2-Fluorobiphenyl (S)	80	%	13-130		1	05/05/20 14:25	05/06/20 16:57	321-60-8	
Terphenyl-d14 (S)	128	%	25-130		1	05/05/20 14:25	05/06/20 16:57	1718-51-0	
Phenol-d6 (S)	48	%	10-130		1	05/05/20 14:25	05/06/20 16:57	13127-88-3	
2-Fluorophenol (S)	61	%	10-130		1	05/05/20 14:25	05/06/20 16:57	367-12-4	
2,4,6-Tribromophenol (S)	86	%	10-137		1	05/05/20 14:25	05/06/20 16:57	118-79-6	
6200B MSV Analytical Method: SM 6200B Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.24	1		05/05/20 17:11	71-43-2	
Bromobenzene	ND	ug/L	0.50	0.22	1		05/05/20 17:11	108-86-1	
Bromochloromethane	ND	ug/L	0.50	0.26	1		05/05/20 17:11	74-97-5	
Bromodichloromethane	ND	ug/L	0.50	0.18	1		05/05/20 17:11	75-27-4	
Bromoform	ND	ug/L	0.50	0.40	1		05/05/20 17:11	75-25-2	
Bromomethane	ND	ug/L	5.0	1.7	1		05/05/20 17:11	74-83-9	
n-Butylbenzene	ND	ug/L	0.50	0.35	1		05/05/20 17:11	104-51-8	
sec-Butylbenzene	ND	ug/L	0.50	0.25	1		05/05/20 17:11	135-98-8	
tert-Butylbenzene	ND	ug/L	0.50	0.25	1		05/05/20 17:11	98-06-6	
Carbon tetrachloride	ND	ug/L	0.50	0.23	1		05/05/20 17:11	56-23-5	
Chlorobenzene	ND	ug/L	0.50	0.22	1		05/05/20 17:11	108-90-7	
Chloroethane	ND	ug/L	1.0	0.58	1		05/05/20 17:11	75-00-3	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-7		Lab ID: 92475821002		Collected: 04/29/20 11:05		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B Pace Analytical Services - Charlotte							
Chloroform	ND	ug/L	0.50	0.35	1		05/05/20 17:11	67-66-3	
Chloromethane	ND	ug/L	1.0	0.42	1		05/05/20 17:11	74-87-3	
2-Chlorotoluene	ND	ug/L	0.50	0.21	1		05/05/20 17:11	95-49-8	
4-Chlorotoluene	ND	ug/L	0.50	0.21	1		05/05/20 17:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.38	1		05/05/20 17:11	96-12-8	
Dibromochloromethane	ND	ug/L	0.50	0.40	1		05/05/20 17:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	0.50	0.23	1		05/05/20 17:11	106-93-4	
Dibromomethane	ND	ug/L	0.50	0.31	1		05/05/20 17:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.24	1		05/05/20 17:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.25	1		05/05/20 17:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.25	1		05/05/20 17:11	106-46-7	
Dichlorodifluoromethane	ND	ug/L	0.50	0.28	1		05/05/20 17:11	75-71-8	
1,1-Dichloroethane	ND	ug/L	0.50	0.24	1		05/05/20 17:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	0.50	0.26	1		05/05/20 17:11	107-06-2	
1,1-Dichloroethene	ND	ug/L	0.50	0.22	1		05/05/20 17:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.21	1		05/05/20 17:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.26	1		05/05/20 17:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	0.50	0.18	1		05/05/20 17:11	78-87-5	
1,3-Dichloropropane	ND	ug/L	0.50	0.34	1		05/05/20 17:11	142-28-9	
2,2-Dichloropropane	ND	ug/L	0.50	0.28	1		05/05/20 17:11	594-20-7	
1,1-Dichloropropene	ND	ug/L	0.50	0.35	1		05/05/20 17:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.36	1		05/05/20 17:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.39	1		05/05/20 17:11	10061-02-6	
Diisopropyl ether	ND	ug/L	0.50	0.33	1		05/05/20 17:11	108-20-3	
Ethylbenzene	ND	ug/L	0.50	0.24	1		05/05/20 17:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.2	1		05/05/20 17:11	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	0.50	0.24	1		05/05/20 17:11	98-82-8	
Methylene Chloride	ND	ug/L	2.0	1.5	1		05/05/20 17:11	75-09-2	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.44	1		05/05/20 17:11	1634-04-4	
Naphthalene	ND	ug/L	2.0	0.66	1		05/05/20 17:11	91-20-3	
n-Propylbenzene	ND	ug/L	0.50	0.24	1		05/05/20 17:11	103-65-1	
Styrene	ND	ug/L	0.50	0.26	1		05/05/20 17:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.42	1		05/05/20 17:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.19	1		05/05/20 17:11	79-34-5	
Tetrachloroethene	ND	ug/L	0.50	0.23	1		05/05/20 17:11	127-18-4	
Toluene	0.34J	ug/L	0.50	0.23	1		05/05/20 17:11	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.78	1		05/05/20 17:11	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.44	1		05/05/20 17:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.28	1		05/05/20 17:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.23	1		05/05/20 17:11	79-00-5	
Trichloroethene	ND	ug/L	0.50	0.23	1		05/05/20 17:11	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.34	1		05/05/20 17:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	0.50	0.27	1		05/05/20 17:11	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.19	1		05/05/20 17:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.23	1		05/05/20 17:11	108-67-8	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-7		Lab ID: 92475821002		Collected: 04/29/20 11:05		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B Pace Analytical Services - Charlotte							
Vinyl chloride	ND	ug/L	1.0	0.41	1		05/05/20 17:11	75-01-4	
m&p-Xylene	ND	ug/L	1.0	0.44	1		05/05/20 17:11	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.24	1		05/05/20 17:11	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		05/05/20 17:11	17060-07-0	
4-Bromofluorobenzene (S)	106	%	70-130		1		05/05/20 17:11	460-00-4	
Toluene-d8 (S)	105	%	70-130		1		05/05/20 17:11	2037-26-5	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-8		Lab ID: 92475821003		Collected: 04/29/20 11:55		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	83-32-9	
Acenaphthylene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	208-96-8	
Aniline	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:00	62-53-3	
Anthracene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:00	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	1.8	1	05/04/20 18:32	05/05/20 15:00	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:00	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:00	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	207-08-9	
Benzoic Acid	ND	ug/L	50.0	19.5	1	05/04/20 18:32	05/05/20 15:00	65-85-0	L2
Benzyl alcohol	ND	ug/L	20.0	2.6	1	05/04/20 18:32	05/05/20 15:00	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1.2	1	05/04/20 18:32	05/05/20 15:00	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	1.9	1	05/04/20 18:32	05/05/20 15:00	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	10.0	2.8	1	05/04/20 18:32	05/05/20 15:00	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	2.8	1	05/04/20 18:32	05/05/20 15:00	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:00	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:00	111-44-4	
2-Chloronaphthalene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	7005-72-3	
Chrysene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:00	53-70-3	
Dibenzofuran	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:00	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	2.7	1	05/04/20 18:32	05/05/20 15:00	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	120-83-2	
Diethylphthalate	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:00	84-66-2	
2,4-Dimethylphenol	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	131-11-3	
Di-n-butylphthalate	2.5J	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:00	84-74-2	L1
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	4.5	1	05/04/20 18:32	05/05/20 15:00	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	7.3	1	05/04/20 18:32	05/05/20 15:00	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:00	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:00	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	2.2	1	05/04/20 18:32	05/05/20 15:00	117-84-0	L1,v1
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	2.0	1	05/04/20 18:32	05/05/20 15:00	117-81-7	L1,v1
Fluoranthene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:00	206-44-0	
Fluorene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:00	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:00	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	2.4	1	05/04/20 18:32	05/05/20 15:00	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:00	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:00	193-39-5	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-8		Lab ID: 92475821003		Collected: 04/29/20 11:55		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Isophorone	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:00	78-59-1	
1-Methylnaphthalene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	10.0	1.2	1	05/04/20 18:32	05/05/20 15:00	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	10.0	1.2	1	05/04/20 18:32	05/05/20 15:00	15831-10-4	
Naphthalene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:00	91-20-3	
2-Nitroaniline	ND	ug/L	20.0	3.0	1	05/04/20 18:32	05/05/20 15:00	88-74-4	
3-Nitroaniline	ND	ug/L	20.0	2.8	1	05/04/20 18:32	05/05/20 15:00	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	3.1	1	05/04/20 18:32	05/05/20 15:00	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:00	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	9.4	1	05/04/20 18:32	05/05/20 15:00	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.0	1.8	1	05/04/20 18:32	05/05/20 15:00	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:00	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:00	108-60-1	v1
Pentachlorophenol	ND	ug/L	20.0	2.8	1	05/04/20 18:32	05/05/20 15:00	87-86-5	
Phenanthrene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	85-01-8	
Phenol	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	108-95-2	
Pyrene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:00	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:00	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:00	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	120	%	13-130		1	05/04/20 18:32	05/05/20 15:00	4165-60-0	
2-Fluorobiphenyl (S)	111	%	13-130		1	05/04/20 18:32	05/05/20 15:00	321-60-8	
Terphenyl-d14 (S)	167	%	25-130		1	05/04/20 18:32	05/05/20 15:00	1718-51-0	S3
Phenol-d6 (S)	59	%	10-130		1	05/04/20 18:32	05/05/20 15:00	13127-88-3	
2-Fluorophenol (S)	80	%	10-130		1	05/04/20 18:32	05/05/20 15:00	367-12-4	
2,4,6-Tribromophenol (S)	115	%	10-137		1	05/04/20 18:32	05/05/20 15:00	118-79-6	
6200B MSV Analytical Method: SM 6200B Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.24	1		05/06/20 14:20	71-43-2	
Bromobenzene	ND	ug/L	0.50	0.22	1		05/06/20 14:20	108-86-1	
Bromochloromethane	ND	ug/L	0.50	0.26	1		05/06/20 14:20	74-97-5	
Bromodichloromethane	ND	ug/L	0.50	0.18	1		05/06/20 14:20	75-27-4	
Bromoform	ND	ug/L	0.50	0.40	1		05/06/20 14:20	75-25-2	
Bromomethane	ND	ug/L	5.0	1.7	1		05/06/20 14:20	74-83-9	L1
n-Butylbenzene	ND	ug/L	0.50	0.35	1		05/06/20 14:20	104-51-8	
sec-Butylbenzene	ND	ug/L	0.50	0.25	1		05/06/20 14:20	135-98-8	
tert-Butylbenzene	ND	ug/L	0.50	0.25	1		05/06/20 14:20	98-06-6	
Carbon tetrachloride	ND	ug/L	0.50	0.23	1		05/06/20 14:20	56-23-5	
Chlorobenzene	ND	ug/L	0.50	0.22	1		05/06/20 14:20	108-90-7	
Chloroethane	ND	ug/L	1.0	0.58	1		05/06/20 14:20	75-00-3	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-8		Lab ID: 92475821003		Collected: 04/29/20 11:55		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B Pace Analytical Services - Charlotte							
Chloroform	ND	ug/L	0.50	0.35	1		05/06/20 14:20	67-66-3	
Chloromethane	ND	ug/L	1.0	0.42	1		05/06/20 14:20	74-87-3	
2-Chlorotoluene	ND	ug/L	0.50	0.21	1		05/06/20 14:20	95-49-8	
4-Chlorotoluene	ND	ug/L	0.50	0.21	1		05/06/20 14:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.38	1		05/06/20 14:20	96-12-8	
Dibromochloromethane	ND	ug/L	0.50	0.40	1		05/06/20 14:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	0.50	0.23	1		05/06/20 14:20	106-93-4	
Dibromomethane	ND	ug/L	0.50	0.31	1		05/06/20 14:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.24	1		05/06/20 14:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.25	1		05/06/20 14:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.25	1		05/06/20 14:20	106-46-7	
Dichlorodifluoromethane	ND	ug/L	0.50	0.28	1		05/06/20 14:20	75-71-8	
1,1-Dichloroethane	ND	ug/L	0.50	0.24	1		05/06/20 14:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	0.50	0.26	1		05/06/20 14:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	0.50	0.22	1		05/06/20 14:20	75-35-4	
cis-1,2-Dichloroethene	48.5	ug/L	0.50	0.21	1		05/06/20 14:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.26	1		05/06/20 14:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	0.50	0.18	1		05/06/20 14:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	0.50	0.34	1		05/06/20 14:20	142-28-9	
2,2-Dichloropropane	ND	ug/L	0.50	0.28	1		05/06/20 14:20	594-20-7	
1,1-Dichloropropene	ND	ug/L	0.50	0.35	1		05/06/20 14:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.36	1		05/06/20 14:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.39	1		05/06/20 14:20	10061-02-6	
Diisopropyl ether	ND	ug/L	0.50	0.33	1		05/06/20 14:20	108-20-3	
Ethylbenzene	ND	ug/L	0.50	0.24	1		05/06/20 14:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.2	1		05/06/20 14:20	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	0.50	0.24	1		05/06/20 14:20	98-82-8	
Methylene Chloride	ND	ug/L	2.0	1.5	1		05/06/20 14:20	75-09-2	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.44	1		05/06/20 14:20	1634-04-4	
Naphthalene	ND	ug/L	2.0	0.66	1		05/06/20 14:20	91-20-3	
n-Propylbenzene	ND	ug/L	0.50	0.24	1		05/06/20 14:20	103-65-1	
Styrene	ND	ug/L	0.50	0.26	1		05/06/20 14:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.42	1		05/06/20 14:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.19	1		05/06/20 14:20	79-34-5	
Tetrachloroethene	104	ug/L	0.50	0.23	1		05/06/20 14:20	127-18-4	
Toluene	ND	ug/L	0.50	0.23	1		05/06/20 14:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.78	1		05/06/20 14:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.44	1		05/06/20 14:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.28	1		05/06/20 14:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.23	1		05/06/20 14:20	79-00-5	
Trichloroethene	46.6	ug/L	0.50	0.23	1		05/06/20 14:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.34	1		05/06/20 14:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	0.50	0.27	1		05/06/20 14:20	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.19	1		05/06/20 14:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.23	1		05/06/20 14:20	108-67-8	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-8		Lab ID: 92475821003		Collected: 04/29/20 11:55		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B Pace Analytical Services - Charlotte							
Vinyl chloride	8.1	ug/L	1.0	0.41	1		05/06/20 14:20	75-01-4	
m&p-Xylene	ND	ug/L	1.0	0.44	1		05/06/20 14:20	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.24	1		05/06/20 14:20	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		05/06/20 14:20	17060-07-0	
4-Bromofluorobenzene (S)	98	%	70-130		1		05/06/20 14:20	460-00-4	
Toluene-d8 (S)	98	%	70-130		1		05/06/20 14:20	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-5		Lab ID: 92475821004		Collected: 04/29/20 12:15		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Acenaphthene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	83-32-9	
Acenaphthylene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	208-96-8	
Aniline	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:25	62-53-3	
Anthracene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:25	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	1.8	1	05/04/20 18:32	05/05/20 15:25	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:25	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:25	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	207-08-9	
Benzoic Acid	ND	ug/L	50.0	19.5	1	05/04/20 18:32	05/05/20 15:25	65-85-0	L2
Benzyl alcohol	ND	ug/L	20.0	2.6	1	05/04/20 18:32	05/05/20 15:25	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	10.0	1.2	1	05/04/20 18:32	05/05/20 15:25	101-55-3	
Butylbenzylphthalate	ND	ug/L	10.0	1.9	1	05/04/20 18:32	05/05/20 15:25	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	10.0	2.8	1	05/04/20 18:32	05/05/20 15:25	59-50-7	
4-Chloroaniline	ND	ug/L	20.0	2.8	1	05/04/20 18:32	05/05/20 15:25	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:25	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:25	111-44-4	
2-Chloronaphthalene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	91-58-7	
2-Chlorophenol	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	7005-72-3	
Chrysene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:25	53-70-3	
Dibenzofuran	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:25	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	2.7	1	05/04/20 18:32	05/05/20 15:25	91-94-1	
2,4-Dichlorophenol	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	120-83-2	
Diethylphthalate	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:25	84-66-2	
2,4-Dimethylphenol	27.5	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	105-67-9	
Dimethylphthalate	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	131-11-3	
Di-n-butylphthalate	5.2J	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:25	84-74-2	L1
4,6-Dinitro-2-methylphenol	ND	ug/L	20.0	4.5	1	05/04/20 18:32	05/05/20 15:25	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	7.3	1	05/04/20 18:32	05/05/20 15:25	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:25	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:25	606-20-2	
Di-n-octylphthalate	ND	ug/L	10.0	2.2	1	05/04/20 18:32	05/05/20 15:25	117-84-0	L1,v1
bis(2-Ethylhexyl)phthalate	ND	ug/L	6.0	2.0	1	05/04/20 18:32	05/05/20 15:25	117-81-7	L1,v1
Fluoranthene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:25	206-44-0	
Fluorene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:25	87-68-3	
Hexachlorobenzene	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:25	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	10.0	2.4	1	05/04/20 18:32	05/05/20 15:25	77-47-4	
Hexachloroethane	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:25	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:25	193-39-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-5		Lab ID: 92475821004		Collected: 04/29/20 12:15		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E RVE Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Charlotte									
Isophorone	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:25	78-59-1	
1-Methylnaphthalene	78.6	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	90-12-0	
2-Methylnaphthalene	98.4	ug/L	50.0	7.0	5	05/04/20 18:32	05/06/20 19:32	91-57-6	
2-Methylphenol(o-Cresol)	28.9	ug/L	10.0	1.2	1	05/04/20 18:32	05/05/20 15:25	95-48-7	
3&4-Methylphenol(m&p Cresol)	53.0	ug/L	10.0	1.2	1	05/04/20 18:32	05/05/20 15:25	15831-10-4	
Naphthalene	330	ug/L	50.0	8.2	5	05/04/20 18:32	05/06/20 19:32	91-20-3	
2-Nitroaniline	ND	ug/L	20.0	3.0	1	05/04/20 18:32	05/05/20 15:25	88-74-4	
3-Nitroaniline	ND	ug/L	20.0	2.8	1	05/04/20 18:32	05/05/20 15:25	99-09-2	
4-Nitroaniline	ND	ug/L	20.0	3.1	1	05/04/20 18:32	05/05/20 15:25	100-01-6	
Nitrobenzene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	98-95-3	
2-Nitrophenol	ND	ug/L	10.0	1.7	1	05/04/20 18:32	05/05/20 15:25	88-75-5	
4-Nitrophenol	ND	ug/L	50.0	9.4	1	05/04/20 18:32	05/05/20 15:25	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	10.0	1.8	1	05/04/20 18:32	05/05/20 15:25	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:25	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10.0	1.3	1	05/04/20 18:32	05/05/20 15:25	108-60-1	v1
Pentachlorophenol	ND	ug/L	20.0	2.8	1	05/04/20 18:32	05/05/20 15:25	87-86-5	
Phenanthrene	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	85-01-8	
Phenol	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	108-95-2	
Pyrene	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1.6	1	05/04/20 18:32	05/05/20 15:25	120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1.5	1	05/04/20 18:32	05/05/20 15:25	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1.4	1	05/04/20 18:32	05/05/20 15:25	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	109	%	13-130		1	05/04/20 18:32	05/05/20 15:25	4165-60-0	
2-Fluorobiphenyl (S)	98	%	13-130		1	05/04/20 18:32	05/05/20 15:25	321-60-8	
Terphenyl-d14 (S)	151	%	25-130		1	05/04/20 18:32	05/05/20 15:25	1718-51-0	S0
Phenol-d6 (S)	63	%	10-130		1	05/04/20 18:32	05/05/20 15:25	13127-88-3	
2-Fluorophenol (S)	83	%	10-130		1	05/04/20 18:32	05/05/20 15:25	367-12-4	
2,4,6-Tribromophenol (S)	131	%	10-137		1	05/04/20 18:32	05/05/20 15:25	118-79-6	
6200B MSV Analytical Method: SM 6200B Pace Analytical Services - Charlotte									
Benzene	4590	ug/L	25.0	12.0	50		05/06/20 17:56	71-43-2	
Bromobenzene	ND	ug/L	25.0	10.8	50		05/06/20 17:56	108-86-1	
Bromochloromethane	ND	ug/L	25.0	12.9	50		05/06/20 17:56	74-97-5	
Bromodichloromethane	ND	ug/L	25.0	9.2	50		05/06/20 17:56	75-27-4	
Bromoform	ND	ug/L	25.0	20.2	50		05/06/20 17:56	75-25-2	
Bromomethane	ND	ug/L	250	86.0	50		05/06/20 17:56	74-83-9	L1
n-Butylbenzene	ND	ug/L	25.0	17.6	50		05/06/20 17:56	104-51-8	
sec-Butylbenzene	ND	ug/L	25.0	12.3	50		05/06/20 17:56	135-98-8	
tert-Butylbenzene	ND	ug/L	25.0	12.5	50		05/06/20 17:56	98-06-6	
Carbon tetrachloride	ND	ug/L	25.0	11.6	50		05/06/20 17:56	56-23-5	
Chlorobenzene	ND	ug/L	25.0	11.2	50		05/06/20 17:56	108-90-7	
Chloroethane	ND	ug/L	50.0	29.2	50		05/06/20 17:56	75-00-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-5		Lab ID: 92475821004		Collected: 04/29/20 12:15		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B Pace Analytical Services - Charlotte							
Chloroform	ND	ug/L	25.0	17.6	50		05/06/20 17:56	67-66-3	
Chloromethane	ND	ug/L	50.0	20.8	50		05/06/20 17:56	74-87-3	
2-Chlorotoluene	ND	ug/L	25.0	10.4	50		05/06/20 17:56	95-49-8	
4-Chlorotoluene	ND	ug/L	25.0	10.3	50		05/06/20 17:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	50.0	19.2	50		05/06/20 17:56	96-12-8	
Dibromochloromethane	ND	ug/L	25.0	20.1	50		05/06/20 17:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	25.0	11.6	50		05/06/20 17:56	106-93-4	
Dibromomethane	ND	ug/L	25.0	15.5	50		05/06/20 17:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	25.0	12.0	50		05/06/20 17:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	25.0	12.5	50		05/06/20 17:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	25.0	12.4	50		05/06/20 17:56	106-46-7	
Dichlorodifluoromethane	ND	ug/L	25.0	14.2	50		05/06/20 17:56	75-71-8	
1,1-Dichloroethane	ND	ug/L	25.0	12.2	50		05/06/20 17:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	25.0	13.2	50		05/06/20 17:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	25.0	10.9	50		05/06/20 17:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	25.0	10.4	50		05/06/20 17:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	25.0	12.8	50		05/06/20 17:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	25.0	9.2	50		05/06/20 17:56	78-87-5	
1,3-Dichloropropane	ND	ug/L	25.0	17.0	50		05/06/20 17:56	142-28-9	
2,2-Dichloropropane	ND	ug/L	25.0	14.0	50		05/06/20 17:56	594-20-7	
1,1-Dichloropropene	ND	ug/L	25.0	17.4	50		05/06/20 17:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	25.0	17.8	50		05/06/20 17:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	25.0	19.7	50		05/06/20 17:56	10061-02-6	
Diisopropyl ether	ND	ug/L	25.0	16.7	50		05/06/20 17:56	108-20-3	
Ethylbenzene	1280	ug/L	25.0	12.0	50		05/06/20 17:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	100	60.0	50		05/06/20 17:56	87-68-3	
Isopropylbenzene (Cumene)	52.9	ug/L	25.0	11.9	50		05/06/20 17:56	98-82-8	
Methylene Chloride	ND	ug/L	100	75.0	50		05/06/20 17:56	75-09-2	
Methyl-tert-butyl ether	3420	ug/L	25.0	22.2	50		05/06/20 17:56	1634-04-4	
Naphthalene	529	ug/L	100	33.0	50		05/06/20 17:56	91-20-3	
n-Propylbenzene	ND	ug/L	25.0	12.0	50		05/06/20 17:56	103-65-1	
Styrene	ND	ug/L	25.0	12.8	50		05/06/20 17:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	25.0	21.1	50		05/06/20 17:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	25.0	9.6	50		05/06/20 17:56	79-34-5	
Tetrachloroethene	ND	ug/L	25.0	11.6	50		05/06/20 17:56	127-18-4	
Toluene	6830	ug/L	25.0	11.4	50		05/06/20 17:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	100	39.0	50		05/06/20 17:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	100	21.8	50		05/06/20 17:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	25.0	13.9	50		05/06/20 17:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	25.0	11.6	50		05/06/20 17:56	79-00-5	
Trichloroethene	ND	ug/L	25.0	11.6	50		05/06/20 17:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	50.0	16.8	50		05/06/20 17:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	25.0	13.6	50		05/06/20 17:56	96-18-4	
1,2,4-Trimethylbenzene	1430	ug/L	25.0	9.6	50		05/06/20 17:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	25.0	11.4	50		05/06/20 17:56	108-67-8	

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ANALYTICAL RESULTS

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Sample: MW-5		Lab ID: 92475821004		Collected: 04/29/20 12:15		Received: 05/01/20 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6200B MSV		Analytical Method: SM 6200B Pace Analytical Services - Charlotte							
Vinyl chloride	ND	ug/L	50.0	20.4	50		05/06/20 17:56	75-01-4	
m&p-Xylene	4240	ug/L	50.0	22.0	50		05/06/20 17:56	179601-23-1	
o-Xylene	2040	ug/L	25.0	11.8	50		05/06/20 17:56	95-47-6	
Surrogates									
1,2-Dichloroethane-d4 (S)	97	%	70-130		50		05/06/20 17:56	17060-07-0	
4-Bromofluorobenzene (S)	97	%	70-130		50		05/06/20 17:56	460-00-4	
Toluene-d8 (S)	98	%	70-130		50		05/06/20 17:56	2037-26-5	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058
Pace Project No.: 92475821

QC Batch:	539759	Analysis Method:	SM 6200B
QC Batch Method:	SM 6200B	Analysis Description:	6200B MSV
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92475821002

METHOD BLANK: 2876946 Matrix: Water

Associated Lab Samples: 92475821002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	0.50	0.42	05/05/20 14:27	
1,1,1-Trichloroethane	ug/L	ND	0.50	0.28	05/05/20 14:27	
1,1,2,2-Tetrachloroethane	ug/L	ND	0.50	0.19	05/05/20 14:27	
1,1,2-Trichloroethane	ug/L	ND	0.50	0.23	05/05/20 14:27	
1,1-Dichloroethane	ug/L	ND	0.50	0.24	05/05/20 14:27	
1,1-Dichloroethene	ug/L	ND	0.50	0.22	05/05/20 14:27	
1,1-Dichloropropene	ug/L	ND	0.50	0.35	05/05/20 14:27	
1,2,3-Trichlorobenzene	ug/L	ND	2.0	0.78	05/05/20 14:27	
1,2,3-Trichloropropane	ug/L	ND	0.50	0.27	05/05/20 14:27	
1,2,4-Trichlorobenzene	ug/L	ND	2.0	0.44	05/05/20 14:27	
1,2,4-Trimethylbenzene	ug/L	ND	0.50	0.19	05/05/20 14:27	
1,2-Dibromo-3-chloropropane	ug/L	ND	1.0	0.38	05/05/20 14:27	
1,2-Dibromoethane (EDB)	ug/L	ND	0.50	0.23	05/05/20 14:27	
1,2-Dichlorobenzene	ug/L	ND	0.50	0.24	05/05/20 14:27	
1,2-Dichloroethane	ug/L	ND	0.50	0.26	05/05/20 14:27	
1,2-Dichloropropane	ug/L	ND	0.50	0.18	05/05/20 14:27	
1,3,5-Trimethylbenzene	ug/L	ND	0.50	0.23	05/05/20 14:27	
1,3-Dichlorobenzene	ug/L	ND	0.50	0.25	05/05/20 14:27	
1,3-Dichloropropane	ug/L	ND	0.50	0.34	05/05/20 14:27	
1,4-Dichlorobenzene	ug/L	ND	0.50	0.25	05/05/20 14:27	
2,2-Dichloropropane	ug/L	ND	0.50	0.28	05/05/20 14:27	
2-Chlorotoluene	ug/L	ND	0.50	0.21	05/05/20 14:27	
4-Chlorotoluene	ug/L	ND	0.50	0.21	05/05/20 14:27	
Benzene	ug/L	ND	0.50	0.24	05/05/20 14:27	
Bromobenzene	ug/L	ND	0.50	0.22	05/05/20 14:27	
Bromochloromethane	ug/L	ND	0.50	0.26	05/05/20 14:27	
Bromodichloromethane	ug/L	ND	0.50	0.18	05/05/20 14:27	
Bromoform	ug/L	ND	0.50	0.40	05/05/20 14:27	
Bromomethane	ug/L	ND	5.0	1.7	05/05/20 14:27	
Carbon tetrachloride	ug/L	ND	0.50	0.23	05/05/20 14:27	
Chlorobenzene	ug/L	ND	0.50	0.22	05/05/20 14:27	
Chloroethane	ug/L	ND	1.0	0.58	05/05/20 14:27	
Chloroform	ug/L	ND	0.50	0.35	05/05/20 14:27	
Chloromethane	ug/L	ND	1.0	0.42	05/05/20 14:27	
cis-1,2-Dichloroethene	ug/L	ND	0.50	0.21	05/05/20 14:27	
cis-1,3-Dichloropropene	ug/L	ND	0.50	0.36	05/05/20 14:27	
Dibromochloromethane	ug/L	ND	0.50	0.40	05/05/20 14:27	
Dibromomethane	ug/L	ND	0.50	0.31	05/05/20 14:27	
Dichlorodifluoromethane	ug/L	ND	0.50	0.28	05/05/20 14:27	
Diisopropyl ether	ug/L	ND	0.50	0.33	05/05/20 14:27	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058
Pace Project No.: 92475821

METHOD BLANK: 2876946

Matrix: Water

Associated Lab Samples: 92475821002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Ethylbenzene	ug/L	ND	0.50	0.24	05/05/20 14:27	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	1.2	05/05/20 14:27	
Isopropylbenzene (Cumene)	ug/L	ND	0.50	0.24	05/05/20 14:27	
m&p-Xylene	ug/L	ND	1.0	0.44	05/05/20 14:27	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.44	05/05/20 14:27	
Methylene Chloride	ug/L	ND	2.0	1.5	05/05/20 14:27	
n-Butylbenzene	ug/L	ND	0.50	0.35	05/05/20 14:27	
n-Propylbenzene	ug/L	ND	0.50	0.24	05/05/20 14:27	
Naphthalene	ug/L	ND	2.0	0.66	05/05/20 14:27	
o-Xylene	ug/L	ND	0.50	0.24	05/05/20 14:27	
sec-Butylbenzene	ug/L	ND	0.50	0.25	05/05/20 14:27	
Styrene	ug/L	ND	0.50	0.26	05/05/20 14:27	
tert-Butylbenzene	ug/L	ND	0.50	0.25	05/05/20 14:27	
Tetrachloroethene	ug/L	ND	0.50	0.23	05/05/20 14:27	
Toluene	ug/L	ND	0.50	0.23	05/05/20 14:27	
trans-1,2-Dichloroethene	ug/L	ND	0.50	0.26	05/05/20 14:27	
trans-1,3-Dichloropropene	ug/L	ND	0.50	0.39	05/05/20 14:27	
Trichloroethene	ug/L	ND	0.50	0.23	05/05/20 14:27	
Trichlorofluoromethane	ug/L	ND	1.0	0.34	05/05/20 14:27	
Vinyl chloride	ug/L	ND	1.0	0.41	05/05/20 14:27	
1,2-Dichloroethane-d4 (S)	%	97	70-130		05/05/20 14:27	
4-Bromofluorobenzene (S)	%	104	70-130		05/05/20 14:27	
Toluene-d8 (S)	%	106	70-130		05/05/20 14:27	

LABORATORY CONTROL SAMPLE: 2876947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	58.1	116	60-140	
1,1,1-Trichloroethane	ug/L	50	56.2	112	60-140	
1,1,2,2-Tetrachloroethane	ug/L	50	56.7	113	60-140	
1,1,2-Trichloroethane	ug/L	50	55.8	112	60-140	
1,1-Dichloroethane	ug/L	50	53.7	107	60-140	
1,1-Dichloroethene	ug/L	50	55.9	112	60-140	
1,1-Dichloropropene	ug/L	50	53.8	108	60-140	
1,2,3-Trichlorobenzene	ug/L	50	48.9	98	60-140	
1,2,3-Trichloropropane	ug/L	50	55.2	110	60-140	
1,2,4-Trichlorobenzene	ug/L	50	51.2	102	60-140	
1,2,4-Trimethylbenzene	ug/L	50	50.1	100	60-140	
1,2-Dibromo-3-chloropropane	ug/L	50	46.3	93	60-140	
1,2-Dibromoethane (EDB)	ug/L	50	53.3	107	60-140	
1,2-Dichlorobenzene	ug/L	50	46.6	93	60-140	
1,2-Dichloroethane	ug/L	50	52.7	105	60-140	
1,2-Dichloropropane	ug/L	50	46.7	93	60-140	
1,3,5-Trimethylbenzene	ug/L	50	48.6	97	60-140	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

LABORATORY CONTROL SAMPLE: 2876947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichlorobenzene	ug/L	50	51.5	103	60-140	
1,3-Dichloropropane	ug/L	50	56.7	113	60-140	
1,4-Dichlorobenzene	ug/L	50	50.4	101	60-140	
2,2-Dichloropropane	ug/L	50	55.2	110	60-140	
2-Chlorotoluene	ug/L	50	46.8	94	60-140	
4-Chlorotoluene	ug/L	50	49.7	99	60-140	
Benzene	ug/L	50	52.5	105	60-140	
Bromobenzene	ug/L	50	50.3	101	60-140	
Bromochloromethane	ug/L	50	56.9	114	60-140	
Bromodichloromethane	ug/L	50	53.7	107	60-140	
Bromoform	ug/L	50	51.7	103	60-140	
Bromomethane	ug/L	50	64.8	130	60-140	
Carbon tetrachloride	ug/L	50	55.8	112	60-140	
Chlorobenzene	ug/L	50	52.9	106	60-140	
Chloroethane	ug/L	50	55.1	110	60-140	
Chloroform	ug/L	50	53.4	107	60-140	
Chloromethane	ug/L	50	49.3	99	60-140	
cis-1,2-Dichloroethene	ug/L	50	53.7	107	60-140	
cis-1,3-Dichloropropene	ug/L	50	50.0	100	60-140	
Dibromochloromethane	ug/L	50	51.7	103	60-140	
Dibromomethane	ug/L	50	50.5	101	60-140	
Dichlorodifluoromethane	ug/L	50	56.5	113	60-140	
Diisopropyl ether	ug/L	50	56.6	113	60-140	
Ethylbenzene	ug/L	50	50.5	101	60-140	
Hexachloro-1,3-butadiene	ug/L	50	53.1	106	60-140	
Isopropylbenzene (Cumene)	ug/L	50	54.0	108	60-140	
m&p-Xylene	ug/L	100	99.6	100	60-140	
Methyl-tert-butyl ether	ug/L	50	59.7	119	60-140	
Methylene Chloride	ug/L	50	51.1	102	60-140	
n-Butylbenzene	ug/L	50	50.7	101	60-140	
n-Propylbenzene	ug/L	50	45.4	91	60-140	
Naphthalene	ug/L	50	49.9	100	60-140	
o-Xylene	ug/L	50	51.9	104	60-140	
sec-Butylbenzene	ug/L	50	51.8	104	60-140	
Styrene	ug/L	50	56.7	113	60-140	
tert-Butylbenzene	ug/L	50	41.3	83	60-140	
Tetrachloroethene	ug/L	50	60.2	120	60-140	
Toluene	ug/L	50	43.6	87	60-140	
trans-1,2-Dichloroethene	ug/L	50	54.0	108	60-140	
trans-1,3-Dichloropropene	ug/L	50	57.3	115	60-140	
Trichloroethene	ug/L	50	51.8	104	60-140	
Trichlorofluoromethane	ug/L	50	55.6	111	60-140	
Vinyl chloride	ug/L	50	63.9	128	60-140	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			97	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2876948 2876949											
Parameter	Units	92475719003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	800	800	921	937	115	117	60-140	2	30
1,1,1-Trichloroethane	ug/L	ND	800	800	933	998	117	125	60-140	7	30
1,1,2,2-Tetrachloroethane	ug/L	ND	800	800	861	924	108	116	60-140	7	30
1,1,2-Trichloroethane	ug/L	ND	800	800	916	967	114	121	60-140	5	30
1,1-Dichloroethane	ug/L	ND	800	800	921	890	115	111	60-140	3	30
1,1-Dichloroethene	ug/L	ND	800	800	968	962	121	120	60-140	1	30
1,1-Dichloropropene	ug/L	ND	800	800	859	909	107	114	60-140	6	30
1,2,3-Trichlorobenzene	ug/L	ND	800	800	829	920	104	115	60-140	10	30
1,2,3-Trichloropropane	ug/L	ND	800	800	848	882	106	110	60-140	4	30
1,2,4-Trichlorobenzene	ug/L	ND	800	800	870	934	109	117	60-140	7	30
1,2,4-Trimethylbenzene	ug/L	1330	800	800	2210	2200	109	108	60-140	0	30
1,2-Dibromo-3-chloropropane	ug/L	ND	800	800	836	842	105	105	60-140	1	30
1,2-Dibromoethane (EDB)	ug/L	ND	800	800	848	889	106	111	60-140	5	30
1,2-Dichlorobenzene	ug/L	ND	800	800	861	910	108	114	60-140	6	30
1,2-Dichloroethane	ug/L	ND	800	800	850	869	106	109	60-140	2	30
1,2-Dichloropropane	ug/L	ND	800	800	837	868	105	108	60-140	4	30
1,3,5-Trimethylbenzene	ug/L	ND	800	800	1240	1270	155	159	60-140	2	30 M1
1,3-Dichlorobenzene	ug/L	ND	800	800	881	908	110	114	60-140	3	30
1,3-Dichloropropane	ug/L	ND	800	800	898	923	112	115	60-140	3	30
1,4-Dichlorobenzene	ug/L	ND	800	800	870	910	109	114	60-140	4	30
2,2-Dichloropropane	ug/L	ND	800	800	901	930	113	116	60-140	3	30
2-Chlorotoluene	ug/L	ND	800	800	934	956	117	120	60-140	2	30
4-Chlorotoluene	ug/L	ND	800	800	880	893	110	112	60-140	1	30
Benzene	ug/L	344	800	800	1120	1300	97	120	60-140	15	30
Bromobenzene	ug/L	ND	800	800	883	930	110	116	60-140	5	30
Bromochloromethane	ug/L	ND	800	800	917	976	115	122	60-140	6	30
Bromodichloromethane	ug/L	ND	800	800	903	976	113	122	60-140	8	30
Bromoform	ug/L	ND	800	800	792	821	99	103	60-140	4	30
Bromomethane	ug/L	ND	800	800	1030	1150	129	143	60-140	11	30 M1
Carbon tetrachloride	ug/L	ND	800	800	939	1020	117	128	60-140	9	30
Chlorobenzene	ug/L	ND	800	800	899	930	112	116	60-140	3	30
Chloroethane	ug/L	ND	800	800	933	934	117	117	60-140	0	30
Chloroform	ug/L	ND	800	800	931	954	116	119	60-140	2	30
Chloromethane	ug/L	ND	800	800	795	814	99	102	60-140	2	30
cis-1,2-Dichloroethene	ug/L	ND	800	800	904	927	113	116	60-140	3	30
cis-1,3-Dichloropropene	ug/L	ND	800	800	761	805	95	101	60-140	6	30
Dibromochloromethane	ug/L	ND	800	800	789	842	99	105	60-140	6	30
Dibromomethane	ug/L	ND	800	800	876	938	109	117	60-140	7	30
Dichlorodifluoromethane	ug/L	ND	800	800	937	937	117	117	60-140	0	30
Diisopropyl ether	ug/L	ND	800	800	898	891	112	111	60-140	1	30
Ethylbenzene	ug/L	1460	800	800	2280	2380	103	115	60-140	4	30
Hexachloro-1,3-butadiene	ug/L	ND	800	800	921	984	115	123	60-140	7	30
Isopropylbenzene (Cumene)	ug/L	68.3	800	800	974	1020	113	119	60-140	5	30
m&p-Xylene	ug/L	3460	1600	1600	5080	5270	101	113	60-140	4	30

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2876948 2876949											
Parameter	Units	92475719003		MS	MSD	MS		MSD	% Rec	Max	
		Result	Conc.	Spike	Spike	Result	Result	% Rec	% Rec	Limits	RPD
Methyl-tert-butyl ether	ug/L	ND	800	800	800	926	951	116	119	60-140	3 30
Methylene Chloride	ug/L	ND	800	800	800	863	856	108	107	60-140	1 30
n-Butylbenzene	ug/L	ND	800	800	800	924	978	115	122	60-140	6 30
n-Propylbenzene	ug/L	ND	800	800	800	1010	1020	126	128	60-140	2 30
Naphthalene	ug/L	677	800	800	800	1560	1640	110	120	60-140	5 30
o-Xylene	ug/L	1840	800	800	800	2710	2790	108	119	60-140	3 30
sec-Butylbenzene	ug/L	ND	800	800	800	904	938	113	117	60-140	4 30
Styrene	ug/L	ND	800	800	800	960	1040	120	130	60-140	8 30
tert-Butylbenzene	ug/L	ND	800	800	800	743	758	93	95	60-140	2 30
Tetrachloroethene	ug/L	ND	800	800	800	957	978	120	122	60-140	2 30
Toluene	ug/L	4960	800	800	800	5690	5890	90	116	60-140	4 30
trans-1,2-Dichloroethene	ug/L	ND	800	800	800	903	942	113	118	60-140	4 30
trans-1,3-Dichloropropene	ug/L	ND	800	800	800	856	913	107	114	60-140	6 30
Trichloroethene	ug/L	ND	800	800	800	890	897	111	112	60-140	1 30
Trichlorofluoromethane	ug/L	ND	800	800	800	951	945	119	118	60-140	1 30
Vinyl chloride	ug/L	ND	800	800	800	1030	1050	129	132	60-140	2 30
1,2-Dichloroethane-d4 (S)	%							107	103	70-130	
4-Bromofluorobenzene (S)	%							99	101	70-130	
Toluene-d8 (S)	%							99	99	70-130	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058
Pace Project No.: 92475821

QC Batch: 539966 Analysis Method: SM 6200B
QC Batch Method: SM 6200B Analysis Description: 6200B MSV
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92475821001, 92475821003, 92475821004

METHOD BLANK: 2877924 Matrix: Water
Associated Lab Samples: 92475821001, 92475821003, 92475821004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	0.50	0.42	05/06/20 11:57	
1,1,1-Trichloroethane	ug/L	ND	0.50	0.28	05/06/20 11:57	
1,1,2,2-Tetrachloroethane	ug/L	ND	0.50	0.19	05/06/20 11:57	
1,1,2-Trichloroethane	ug/L	ND	0.50	0.23	05/06/20 11:57	
1,1-Dichloroethane	ug/L	ND	0.50	0.24	05/06/20 11:57	
1,1-Dichloroethene	ug/L	ND	0.50	0.22	05/06/20 11:57	
1,1-Dichloropropene	ug/L	ND	0.50	0.35	05/06/20 11:57	
1,2,3-Trichlorobenzene	ug/L	ND	2.0	0.78	05/06/20 11:57	
1,2,3-Trichloropropane	ug/L	ND	0.50	0.27	05/06/20 11:57	
1,2,4-Trichlorobenzene	ug/L	ND	2.0	0.44	05/06/20 11:57	
1,2,4-Trimethylbenzene	ug/L	ND	0.50	0.19	05/06/20 11:57	
1,2-Dibromo-3-chloropropane	ug/L	ND	1.0	0.38	05/06/20 11:57	
1,2-Dibromoethane (EDB)	ug/L	ND	0.50	0.23	05/06/20 11:57	
1,2-Dichlorobenzene	ug/L	ND	0.50	0.24	05/06/20 11:57	
1,2-Dichloroethane	ug/L	ND	0.50	0.26	05/06/20 11:57	
1,2-Dichloropropane	ug/L	ND	0.50	0.18	05/06/20 11:57	
1,3,5-Trimethylbenzene	ug/L	ND	0.50	0.23	05/06/20 11:57	
1,3-Dichlorobenzene	ug/L	ND	0.50	0.25	05/06/20 11:57	
1,3-Dichloropropane	ug/L	ND	0.50	0.34	05/06/20 11:57	
1,4-Dichlorobenzene	ug/L	ND	0.50	0.25	05/06/20 11:57	
2,2-Dichloropropane	ug/L	ND	0.50	0.28	05/06/20 11:57	
2-Chlorotoluene	ug/L	ND	0.50	0.21	05/06/20 11:57	
4-Chlorotoluene	ug/L	ND	0.50	0.21	05/06/20 11:57	
Benzene	ug/L	ND	0.50	0.24	05/06/20 11:57	
Bromobenzene	ug/L	ND	0.50	0.22	05/06/20 11:57	
Bromochloromethane	ug/L	ND	0.50	0.26	05/06/20 11:57	
Bromodichloromethane	ug/L	ND	0.50	0.18	05/06/20 11:57	
Bromoform	ug/L	ND	0.50	0.40	05/06/20 11:57	
Bromomethane	ug/L	ND	5.0	1.7	05/06/20 11:57	
Carbon tetrachloride	ug/L	ND	0.50	0.23	05/06/20 11:57	
Chlorobenzene	ug/L	ND	0.50	0.22	05/06/20 11:57	
Chloroethane	ug/L	ND	1.0	0.58	05/06/20 11:57	
Chloroform	ug/L	ND	0.50	0.35	05/06/20 11:57	
Chloromethane	ug/L	ND	1.0	0.42	05/06/20 11:57	
cis-1,2-Dichloroethene	ug/L	ND	0.50	0.21	05/06/20 11:57	
cis-1,3-Dichloropropene	ug/L	ND	0.50	0.36	05/06/20 11:57	
Dibromochloromethane	ug/L	ND	0.50	0.40	05/06/20 11:57	
Dibromomethane	ug/L	ND	0.50	0.31	05/06/20 11:57	
Dichlorodifluoromethane	ug/L	ND	0.50	0.28	05/06/20 11:57	
Diisopropyl ether	ug/L	ND	0.50	0.33	05/06/20 11:57	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

METHOD BLANK: 2877924

Matrix: Water

Associated Lab Samples: 92475821001, 92475821003, 92475821004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Ethylbenzene	ug/L	ND	0.50	0.24	05/06/20 11:57	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	1.2	05/06/20 11:57	
Isopropylbenzene (Cumene)	ug/L	ND	0.50	0.24	05/06/20 11:57	
m&p-Xylene	ug/L	ND	1.0	0.44	05/06/20 11:57	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.44	05/06/20 11:57	
Methylene Chloride	ug/L	ND	2.0	1.5	05/06/20 11:57	
n-Butylbenzene	ug/L	ND	0.50	0.35	05/06/20 11:57	
n-Propylbenzene	ug/L	ND	0.50	0.24	05/06/20 11:57	
Naphthalene	ug/L	ND	2.0	0.66	05/06/20 11:57	
o-Xylene	ug/L	ND	0.50	0.24	05/06/20 11:57	
sec-Butylbenzene	ug/L	ND	0.50	0.25	05/06/20 11:57	
Styrene	ug/L	ND	0.50	0.26	05/06/20 11:57	
tert-Butylbenzene	ug/L	ND	0.50	0.25	05/06/20 11:57	
Tetrachloroethene	ug/L	ND	0.50	0.23	05/06/20 11:57	
Toluene	ug/L	ND	0.50	0.23	05/06/20 11:57	
trans-1,2-Dichloroethene	ug/L	ND	0.50	0.26	05/06/20 11:57	
trans-1,3-Dichloropropene	ug/L	ND	0.50	0.39	05/06/20 11:57	
Trichloroethene	ug/L	ND	0.50	0.23	05/06/20 11:57	
Trichlorofluoromethane	ug/L	ND	1.0	0.34	05/06/20 11:57	
Vinyl chloride	ug/L	ND	1.0	0.41	05/06/20 11:57	
1,2-Dichloroethane-d4 (S)	%	96	70-130		05/06/20 11:57	
4-Bromofluorobenzene (S)	%	96	70-130		05/06/20 11:57	
Toluene-d8 (S)	%	99	70-130		05/06/20 11:57	

LABORATORY CONTROL SAMPLE: 2877925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.4	97	60-140	
1,1,1-Trichloroethane	ug/L	50	44.3	89	60-140	
1,1,2,2-Tetrachloroethane	ug/L	50	43.5	87	60-140	
1,1,2-Trichloroethane	ug/L	50	47.8	96	60-140	
1,1-Dichloroethane	ug/L	50	41.0	82	60-140	
1,1-Dichloroethene	ug/L	50	42.0	84	60-140	
1,1-Dichloropropene	ug/L	50	46.1	92	60-140	
1,2,3-Trichlorobenzene	ug/L	50	39.7	79	60-140	
1,2,3-Trichloropropane	ug/L	50	43.1	86	60-140	
1,2,4-Trichlorobenzene	ug/L	50	44.8	90	60-140	
1,2,4-Trimethylbenzene	ug/L	50	44.6	89	60-140	
1,2-Dibromo-3-chloropropane	ug/L	50	44.9	90	60-140	
1,2-Dibromoethane (EDB)	ug/L	50	46.7	93	60-140	
1,2-Dichlorobenzene	ug/L	50	47.2	94	60-140	
1,2-Dichloroethane	ug/L	50	40.6	81	60-140	
1,2-Dichloropropane	ug/L	50	42.5	85	60-140	
1,3,5-Trimethylbenzene	ug/L	50	44.9	90	60-140	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

LABORATORY CONTROL SAMPLE: 2877925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichlorobenzene	ug/L	50	48.1	96	60-140	
1,3-Dichloropropane	ug/L	50	45.5	91	60-140	
1,4-Dichlorobenzene	ug/L	50	47.9	96	60-140	
2,2-Dichloropropane	ug/L	50	45.9	92	60-140	
2-Chlorotoluene	ug/L	50	44.5	89	60-140	
4-Chlorotoluene	ug/L	50	44.6	89	60-140	
Benzene	ug/L	50	43.7	87	60-140	
Bromobenzene	ug/L	50	46.9	94	60-140	
Bromochloromethane	ug/L	50	45.3	91	60-140	
Bromodichloromethane	ug/L	50	45.6	91	60-140	
Bromoform	ug/L	50	47.7	95	60-140	
Bromomethane	ug/L	50	82.7	165	60-140	L1
Carbon tetrachloride	ug/L	50	48.0	96	60-140	
Chlorobenzene	ug/L	50	47.8	96	60-140	
Chloroethane	ug/L	50	38.9	78	60-140	
Chloroform	ug/L	50	43.0	86	60-140	
Chloromethane	ug/L	50	35.4	71	60-140	
cis-1,2-Dichloroethene	ug/L	50	40.2	80	60-140	
cis-1,3-Dichloropropene	ug/L	50	44.8	90	60-140	
Dibromochloromethane	ug/L	50	48.1	96	60-140	
Dibromomethane	ug/L	50	48.2	96	60-140	
Dichlorodifluoromethane	ug/L	50	48.1	96	60-140	
Diisopropyl ether	ug/L	50	37.3	75	60-140	
Ethylbenzene	ug/L	50	44.5	89	60-140	
Hexachloro-1,3-butadiene	ug/L	50	45.7	91	60-140	
Isopropylbenzene (Cumene)	ug/L	50	46.9	94	60-140	
m&p-Xylene	ug/L	100	90.1	90	60-140	
Methyl-tert-butyl ether	ug/L	50	44.6	89	60-140	
Methylene Chloride	ug/L	50	37.8	76	60-140	
n-Butylbenzene	ug/L	50	44.9	90	60-140	
n-Propylbenzene	ug/L	50	42.3	85	60-140	
Naphthalene	ug/L	50	40.9	82	60-140	
o-Xylene	ug/L	50	45.1	90	60-140	
sec-Butylbenzene	ug/L	50	44.0	88	60-140	
Styrene	ug/L	50	48.0	96	60-140	
tert-Butylbenzene	ug/L	50	37.9	76	60-140	
Tetrachloroethene	ug/L	50	47.7	95	60-140	
Toluene	ug/L	50	43.2	86	60-140	
trans-1,2-Dichloroethene	ug/L	50	41.5	83	60-140	
trans-1,3-Dichloropropene	ug/L	50	45.0	90	60-140	
Trichloroethene	ug/L	50	49.8	100	60-140	
Trichlorofluoromethane	ug/L	50	43.6	87	60-140	
Vinyl chloride	ug/L	50	47.2	94	60-140	
1,2-Dichloroethane-d4 (S)	%			90	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			99	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2877926 2877927											
Parameter	Units	92476006001		MS	MSD	MS	MSD	MS	MSD	% Rec	Max
		Result	Conc.	Spike	Spike						
						Result	Result	% Rec	% Rec	Limits	RPD
1,1,1,2-Tetrachloroethane	ug/L	ND	200	200	200	218	212	109	106	60-140	3
1,1,1-Trichloroethane	ug/L	ND	200	200	200	212	207	106	103	60-140	2
1,1,2,2-Tetrachloroethane	ug/L	ND	200	200	200	197	190	98	95	60-140	4
1,1,2-Trichloroethane	ug/L	ND	200	200	200	211	199	105	99	60-140	6
1,1-Dichloroethane	ug/L	ND	200	200	200	193	185	96	93	60-140	4
1,1-Dichloroethene	ug/L	ND	200	200	200	207	201	104	100	60-140	3
1,1-Dichloropropene	ug/L	ND	200	200	200	215	208	107	104	60-140	3
1,2,3-Trichlorobenzene	ug/L	ND	200	200	200	191	192	96	96	60-140	0
1,2,3-Trichloropropane	ug/L	ND	200	200	200	212	201	106	101	60-140	5
1,2,4-Trichlorobenzene	ug/L	ND	200	200	200	209	200	104	100	60-140	4
1,2,4-Trimethylbenzene	ug/L	923	200	200	200	1140	1130	109	105	60-140	1
1,2-Dibromo-3-chloropropane	ug/L	ND	200	200	200	206	200	103	100	60-140	3
1,2-Dibromoethane (EDB)	ug/L	ND	200	200	200	214	203	107	101	60-140	5
1,2-Dichlorobenzene	ug/L	ND	200	200	200	211	201	105	100	60-140	5
1,2-Dichloroethane	ug/L	ND	200	200	200	188	179	93	88	60-140	5
1,2-Dichloropropane	ug/L	ND	200	200	200	195	188	97	94	60-140	3
1,3,5-Trimethylbenzene	ug/L	230	200	200	200	443	434	107	102	60-140	2
1,3-Dichlorobenzene	ug/L	ND	200	200	200	211	202	106	101	60-140	4
1,3-Dichloropropane	ug/L	ND	200	200	200	205	196	102	98	60-140	4
1,4-Dichlorobenzene	ug/L	ND	200	200	200	209	199	105	100	60-140	5
2,2-Dichloropropane	ug/L	ND	200	200	200	198	191	99	95	60-140	4
2-Chlorotoluene	ug/L	ND	200	200	200	239	231	120	115	60-140	4
4-Chlorotoluene	ug/L	ND	200	200	200	196	190	98	95	60-140	3
Benzene	ug/L	33.0	200	200	200	240	228	103	98	60-140	5
Bromobenzene	ug/L	ND	200	200	200	214	207	107	103	60-140	3
Bromochloromethane	ug/L	ND	200	200	200	203	198	102	99	60-140	2
Bromodichloromethane	ug/L	ND	200	200	200	205	190	102	95	60-140	7
Bromoform	ug/L	ND	200	200	200	207	198	103	99	60-140	4
Bromomethane	ug/L	ND	200	200	200	372	389	186	195	60-140	4
Carbon tetrachloride	ug/L	ND	200	200	200	232	213	116	106	60-140	8
Chlorobenzene	ug/L	ND	200	200	200	218	213	109	107	60-140	2
Chloroethane	ug/L	ND	200	200	200	225	222	112	111	60-140	1
Chloroform	ug/L	ND	200	200	200	207	196	103	98	60-140	6
Chloromethane	ug/L	ND	200	200	200	171	168	85	84	60-140	2
cis-1,2-Dichloroethene	ug/L	ND	200	200	200	189	181	94	90	60-140	4
cis-1,3-Dichloropropene	ug/L	ND	200	200	200	196	184	98	92	60-140	7
Dibromochloromethane	ug/L	ND	200	200	200	215	199	107	100	60-140	7
Dibromomethane	ug/L	ND	200	200	200	215	206	107	103	60-140	4
Dichlorodifluoromethane	ug/L	ND	200	200	200	225	216	112	108	60-140	4
Diisopropyl ether	ug/L	ND	200	200	200	173	167	86	84	60-140	3
Ethylbenzene	ug/L	342	200	200	200	565	561	111	109	60-140	1
Hexachloro-1,3-butadiene	ug/L	ND	200	200	200	216	206	108	103	60-140	5
Isopropylbenzene (Cumene)	ug/L	35.2	200	200	200	255	244	110	104	60-140	4
m&p-Xylene	ug/L	777	400	400	400	1220	1210	111	107	60-140	1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2877926 2877927											
Parameter	Units	92476006001		MS	MSD	MS		MS	MSD	% Rec	Max
		Result	Conc.	Spike	Spike	Result	Result	% Rec	% Rec	Limits	RPD
Methyl-tert-butyl ether	ug/L	ND	200	200	200	202	196	101	98	60-140	3
Methylene Chloride	ug/L	ND	200	200	200	173	166	86	83	60-140	4
n-Butylbenzene	ug/L	ND	200	200	200	253	249	127	125	60-140	2
n-Propylbenzene	ug/L	ND	200	200	200	276	269	138	134	60-140	3
Naphthalene	ug/L	225	200	200	200	415	412	95	94	60-140	1
o-Xylene	ug/L	381	200	200	200	606	599	113	109	60-140	1
sec-Butylbenzene	ug/L	ND	200	200	200	211	203	106	101	60-140	4
Styrene	ug/L	30.8	200	200	200	248	243	109	106	60-140	2
tert-Butylbenzene	ug/L	ND	200	200	200	175	168	87	84	60-140	4
Tetrachloroethene	ug/L	ND	200	200	200	227	214	114	107	60-140	6
Toluene	ug/L	1120	200	200	200	1360	1340	120	107	60-140	2
trans-1,2-Dichloroethene	ug/L	ND	200	200	200	195	191	98	95	60-140	2
trans-1,3-Dichloropropene	ug/L	ND	200	200	200	199	187	99	93	60-140	6
Trichloroethene	ug/L	ND	200	200	200	228	218	114	109	60-140	5
Trichlorofluoromethane	ug/L	ND	200	200	200	224	215	112	108	60-140	4
Vinyl chloride	ug/L	ND	200	200	200	227	219	114	110	60-140	4
1,2-Dichloroethane-d4 (S)	%							93	96	70-130	
4-Bromofluorobenzene (S)	%							100	98	70-130	
Toluene-d8 (S)	%							97	97	70-130	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

QC Batch: 539615

Analysis Method: EPA 8270E

QC Batch Method: EPA 3510C

Analysis Description: 8270E Water MSSV RVE

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92475821003, 92475821004

METHOD BLANK: 2876355

Matrix: Water

Associated Lab Samples: 92475821003, 92475821004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	10.0	1.6	05/05/20 11:35	
1,2-Dichlorobenzene	ug/L	ND	10.0	1.4	05/05/20 11:35	
1,3-Dichlorobenzene	ug/L	ND	10.0	1.4	05/05/20 11:35	
1,4-Dichlorobenzene	ug/L	ND	10.0	1.5	05/05/20 11:35	
1-Methylnaphthalene	ug/L	ND	10.0	1.4	05/05/20 11:35	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	1.3	05/05/20 11:35	v1
2,4,5-Trichlorophenol	ug/L	ND	10.0	1.5	05/05/20 11:35	
2,4,6-Trichlorophenol	ug/L	ND	10.0	1.4	05/05/20 11:35	
2,4-Dichlorophenol	ug/L	ND	10.0	1.5	05/05/20 11:35	
2,4-Dimethylphenol	ug/L	ND	10.0	1.5	05/05/20 11:35	
2,4-Dinitrophenol	ug/L	ND	50.0	7.3	05/05/20 11:35	
2,4-Dinitrotoluene	ug/L	ND	10.0	1.7	05/05/20 11:35	
2,6-Dinitrotoluene	ug/L	ND	10.0	1.7	05/05/20 11:35	
2-Chloronaphthalene	ug/L	ND	10.0	1.4	05/05/20 11:35	
2-Chlorophenol	ug/L	ND	10.0	1.4	05/05/20 11:35	
2-Methylnaphthalene	ug/L	ND	10.0	1.4	05/05/20 11:35	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	1.2	05/05/20 11:35	
2-Nitroaniline	ug/L	ND	20.0	3.0	05/05/20 11:35	
2-Nitrophenol	ug/L	ND	10.0	1.7	05/05/20 11:35	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	1.2	05/05/20 11:35	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	2.7	05/05/20 11:35	
3-Nitroaniline	ug/L	ND	20.0	2.8	05/05/20 11:35	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	4.5	05/05/20 11:35	
4-Bromophenylphenyl ether	ug/L	ND	10.0	1.2	05/05/20 11:35	
4-Chloro-3-methylphenol	ug/L	ND	10.0	2.8	05/05/20 11:35	
4-Chloroaniline	ug/L	ND	20.0	2.8	05/05/20 11:35	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	1.5	05/05/20 11:35	
4-Nitroaniline	ug/L	ND	20.0	3.1	05/05/20 11:35	
4-Nitrophenol	ug/L	ND	50.0	9.4	05/05/20 11:35	
Acenaphthene	ug/L	ND	10.0	1.4	05/05/20 11:35	
Acenaphthylene	ug/L	ND	10.0	1.5	05/05/20 11:35	
Aniline	ug/L	ND	10.0	1.6	05/05/20 11:35	
Anthracene	ug/L	ND	10.0	1.6	05/05/20 11:35	
Benzo(a)anthracene	ug/L	ND	10.0	1.5	05/05/20 11:35	
Benzo(a)pyrene	ug/L	ND	10.0	1.8	05/05/20 11:35	
Benzo(b)fluoranthene	ug/L	ND	10.0	1.7	05/05/20 11:35	
Benzo(g,h,i)perylene	ug/L	ND	10.0	1.6	05/05/20 11:35	
Benzo(k)fluoranthene	ug/L	ND	10.0	1.5	05/05/20 11:35	
Benzoic Acid	ug/L	ND	50.0	19.5	05/05/20 11:35	
Benzyl alcohol	ug/L	ND	20.0	2.6	05/05/20 11:35	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

METHOD BLANK: 2876355

Matrix: Water

Associated Lab Samples: 92475821003, 92475821004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	1.3	05/05/20 11:35	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	1.7	05/05/20 11:35	
bis(2-Ethylhexyl)phthalate	ug/L	ND	6.0	2.0	05/05/20 11:35	v1
Butylbenzylphthalate	ug/L	ND	10.0	1.9	05/05/20 11:35	
Chrysene	ug/L	ND	10.0	1.4	05/05/20 11:35	
Di-n-butylphthalate	ug/L	4.5J	10.0	1.6	05/05/20 11:35	
Di-n-octylphthalate	ug/L	ND	10.0	2.2	05/05/20 11:35	v1
Dibenz(a,h)anthracene	ug/L	ND	10.0	1.6	05/05/20 11:35	
Dibenzofuran	ug/L	ND	10.0	1.3	05/05/20 11:35	
Diethylphthalate	ug/L	ND	10.0	1.6	05/05/20 11:35	
Dimethylphthalate	ug/L	ND	10.0	1.4	05/05/20 11:35	
Fluoranthene	ug/L	ND	10.0	1.6	05/05/20 11:35	
Fluorene	ug/L	ND	10.0	1.4	05/05/20 11:35	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	1.6	05/05/20 11:35	
Hexachlorobenzene	ug/L	ND	10.0	1.3	05/05/20 11:35	
Hexachlorocyclopentadiene	ug/L	ND	10.0	2.4	05/05/20 11:35	
Hexachloroethane	ug/L	ND	10.0	1.3	05/05/20 11:35	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	1.7	05/05/20 11:35	
Isophorone	ug/L	ND	10.0	1.3	05/05/20 11:35	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	1.3	05/05/20 11:35	
N-Nitrosodimethylamine	ug/L	ND	10.0	1.8	05/05/20 11:35	
N-Nitrosodiphenylamine	ug/L	ND	10.0	1.4	05/05/20 11:35	
Naphthalene	ug/L	ND	10.0	1.6	05/05/20 11:35	
Nitrobenzene	ug/L	ND	10.0	1.5	05/05/20 11:35	
Pentachlorophenol	ug/L	ND	20.0	2.8	05/05/20 11:35	
Phenanthrene	ug/L	ND	10.0	1.4	05/05/20 11:35	
Phenol	ug/L	ND	10.0	1.5	05/05/20 11:35	
Pyrene	ug/L	ND	10.0	1.5	05/05/20 11:35	
2,4,6-Tribromophenol (S)	%	115	10-137		05/05/20 11:35	
2-Fluorobiphenyl (S)	%	103	13-130		05/05/20 11:35	
2-Fluorophenol (S)	%	78	10-130		05/05/20 11:35	
Nitrobenzene-d5 (S)	%	117	13-130		05/05/20 11:35	
Phenol-d6 (S)	%	61	10-130		05/05/20 11:35	
Terphenyl-d14 (S)	%	156	25-130		05/05/20 11:35	S3

LABORATORY CONTROL SAMPLE: 2876356

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	36.2	72	30-130	
1,2-Dichlorobenzene	ug/L	50	38.3	77	30-130	
1,3-Dichlorobenzene	ug/L	50	36.5	73	20-130	
1,4-Dichlorobenzene	ug/L	50	38.8	78	30-130	
1-Methylnaphthalene	ug/L	50	43.7	87	30-130	
2,2'-Oxybis(1-chloropropane)	ug/L	50	60.1	120	20-130	v1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

LABORATORY CONTROL SAMPLE: 2876356

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L	50	45.5	91	40-130	
2,4,6-Trichlorophenol	ug/L	50	44.8	90	40-130	
2,4-Dichlorophenol	ug/L	50	45.7	91	31-130	
2,4-Dimethylphenol	ug/L	50	47.0	94	30-130	
2,4-Dinitrophenol	ug/L	250	156	62	30-130	
2,4-Dinitrotoluene	ug/L	50	55.5	111	49-130	
2,6-Dinitrotoluene	ug/L	50	54.3	109	50-130	
2-Chloronaphthalene	ug/L	50	43.0	86	30-130	
2-Chlorophenol	ug/L	50	44.3	89	30-130	
2-Methylnaphthalene	ug/L	50	44.5	89	30-130	
2-Methylphenol(o-Cresol)	ug/L	50	45.2	90	30-130	
2-Nitroaniline	ug/L	100	94.8	95	40-130	
2-Nitrophenol	ug/L	50	52.5	105	20-130	
3&4-Methylphenol(m&p Cresol)	ug/L	50	38.5	77	20-130	
3,3'-Dichlorobenzidine	ug/L	100	102	102	10-150	
3-Nitroaniline	ug/L	100	108	108	40-130	
4,6-Dinitro-2-methylphenol	ug/L	100	99.7	100	40-130	
4-Bromophenylphenyl ether	ug/L	50	46.8	94	30-130	
4-Chloro-3-methylphenol	ug/L	100	98.8	99	30-130	
4-Chloroaniline	ug/L	100	91.5	92	20-130	
4-Chlorophenylphenyl ether	ug/L	50	43.8	88	20-130	
4-Nitroaniline	ug/L	100	104	104	40-130	
4-Nitrophenol	ug/L	250	120	48	10-130	
Acenaphthene	ug/L	50	46.7	93	30-130	
Acenaphthylene	ug/L	50	49.7	99	30-130	
Aniline	ug/L	50	37.0	74	20-130	
Anthracene	ug/L	50	50.1	100	50-130	
Benzo(a)anthracene	ug/L	50	53.6	107	50-130	
Benzo(a)pyrene	ug/L	50	54.7	109	50-130	
Benzo(b)fluoranthene	ug/L	50	55.1	110	50-130	
Benzo(g,h,i)perylene	ug/L	50	57.1	114	50-130	
Benzo(k)fluoranthene	ug/L	50	56.2	112	50-130	
Benzoic Acid	ug/L	250	ND	3	10-130	L2
Benzyl alcohol	ug/L	100	76.7	77	20-130	
bis(2-Chloroethoxy)methane	ug/L	50	47.6	95	30-130	
bis(2-Chloroethyl) ether	ug/L	50	47.6	95	30-130	
bis(2-Ethylhexyl)phthalate	ug/L	50	69.7	139	50-130	L1,v1
Butylbenzylphthalate	ug/L	50	66.6	133	50-150	
Chrysene	ug/L	50	53.5	107	50-130	
Di-n-butylphthalate	ug/L	50	66.5	133	50-130	L1
Di-n-octylphthalate	ug/L	50	74.0	148	50-130	L1,v1
Dibenz(a,h)anthracene	ug/L	50	57.3	115	40-130	
Dibenzofuran	ug/L	50	47.1	94	40-130	
Diethylphthalate	ug/L	50	54.3	109	40-130	
Dimethylphthalate	ug/L	50	51.0	102	40-130	
Fluoranthene	ug/L	50	53.3	107	30-130	
Fluorene	ug/L	50	47.9	96	20-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

LABORATORY CONTROL SAMPLE: 2876356

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachloro-1,3-butadiene	ug/L	50	32.5	65	10-130	
Hexachlorobenzene	ug/L	50	46.7	93	30-130	
Hexachlorocyclopentadiene	ug/L	50	30.8	62	10-150	
Hexachloroethane	ug/L	50	36.8	74	10-130	
Indeno(1,2,3-cd)pyrene	ug/L	50	57.5	115	40-130	
Isophorone	ug/L	50	49.4	99	30-130	
N-Nitroso-di-n-propylamine	ug/L	50	45.3	91	30-130	
N-Nitrosodimethylamine	ug/L	50	37.7	75	10-130	
N-Nitrosodiphenylamine	ug/L	50	50.1	100	30-130	
Naphthalene	ug/L	50	43.5	87	20-130	
Nitrobenzene	ug/L	50	47.2	94	20-130	
Pentachlorophenol	ug/L	100	88.8	89	10-140	
Phenanthrene	ug/L	50	49.8	100	50-130	
Phenol	ug/L	50	24.6	49	10-130	
Pyrene	ug/L	50	52.6	105	50-130	
2,4,6-Tribromophenol (S)	%			125	10-137	
2-Fluorobiphenyl (S)	%			102	13-130	
2-Fluorophenol (S)	%			77	10-130	
Nitrobenzene-d5 (S)	%			109	13-130	
Phenol-d6 (S)	%			61	10-130	
Terphenyl-d14 (S)	%			148	25-130	S0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2876357 2876358

Parameter	Units	92475920001		MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.								
1,2,4-Trichlorobenzene	ug/L	ND	50	50	50	41.5	37.1	83	74	30-130	11	30	
1,2-Dichlorobenzene	ug/L	ND	50	50	50	44.6	39.7	89	79	30-130	11	30	
1,3-Dichlorobenzene	ug/L	ND	50	50	50	43.5	38.4	87	77	20-130	12	30	
1,4-Dichlorobenzene	ug/L	ND	50	50	50	46.5	41.0	93	82	30-130	13	30	
1-Methylnaphthalene	ug/L	ND	50	50	50	50.2	46.0	100	92	30-130	9	30	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	50	50	50	71.5	66.2	143	132	20-130	8	30	M1, v1
2,4,5-Trichlorophenol	ug/L	ND	50	50	50	46.8	49.6	94	99	40-130	6	30	
2,4,6-Trichlorophenol	ug/L	ND	50	50	50	39.8	46.2	80	92	40-130	15	30	
2,4-Dichlorophenol	ug/L	ND	50	50	50	46.7	47.1	93	94	31-130	1	30	
2,4-Dimethylphenol	ug/L	ND	50	50	50	50.6	49.0	101	98	30-130	3	30	
2,4-Dinitrophenol	ug/L	ND	250	250	250	33.4J	40.3J	13	16	30-130		30	M1
2,4-Dinitrotoluene	ug/L	ND	50	50	50	61.6	60.1	123	120	49-130	2	30	
2,6-Dinitrotoluene	ug/L	ND	50	50	50	60.3	58.9	121	118	50-130	2	30	
2-Chloronaphthalene	ug/L	ND	50	50	50	48.7	46.7	97	93	30-130	4	30	
2-Chlorophenol	ug/L	ND	50	50	50	48.1	48.8	96	98	30-130	2	30	
2-Methylnaphthalene	ug/L	ND	50	50	50	50.9	47.1	102	94	30-130	8	30	
2-Methylphenol(o-Cresol)	ug/L	ND	50	50	50	46.6	48.4	93	97	30-130	4	30	
2-Nitroaniline	ug/L	ND	100	100	100	106	102	106	102	40-130	4	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			2876357		2876358							
Parameter	Units	92475920001	MS	MSD	MS	MSD	MS	MSD	% Rec	RPD	Max	Qual
		Result	Spike	Spike								
2-Nitrophenol	ug/L	ND	50	50	52.7	53.3	105	107	20-130	1	30	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	50	50	40.4	41.5	81	83	20-130	3	30	
3,3'-Dichlorobenzidine	ug/L	ND	100	100	114	113	114	113	10-150	1	30	
3-Nitroaniline	ug/L	ND	100	100	121	119	121	119	40-130	2	30	
4,6-Dinitro-2-methylphenol	ug/L	ND	100	100	53.4	70.7	53	71	40-130	28	30	
4-Bromophenylphenyl ether	ug/L	ND	50	50	50.0	48.7	100	97	30-130	3	30	
4-Chloro-3-methylphenol	ug/L	ND	100	100	109	105	109	105	30-130	3	30	
4-Chloroaniline	ug/L	ND	100	100	98.4	99.0	98	99	20-130	1	30	
4-Chlorophenylphenyl ether	ug/L	ND	50	50	49.2	47.9	98	96	20-130	3	30	
4-Nitroaniline	ug/L	ND	100	100	126	120	126	120	40-130	5	30	
4-Nitrophenol	ug/L	ND	250	250	55.1	71.8	22	29	10-130	26	30	
Acenaphthene	ug/L	ND	50	50	53.8	51.6	108	103	30-130	4	30	
Acenaphthylene	ug/L	ND	50	50	55.2	52.9	110	106	30-130	4	30	
Aniline	ug/L	ND	50	50	41.0	40.9	82	82	20-130	0	30	
Anthracene	ug/L	ND	50	50	55.5	53.4	111	107	50-130	4	30	
Benzo(a)anthracene	ug/L	ND	50	50	58.5	57.8	117	116	50-130	1	30	
Benzo(a)pyrene	ug/L	ND	50	50	58.4	58.4	117	117	50-130	0	30	
Benzo(b)fluoranthene	ug/L	ND	50	50	57.6	58.2	115	116	50-130	1	30	
Benzo(g,h,i)perylene	ug/L	ND	50	50	61.4	60.4	123	121	50-130	2	30	
Benzo(k)fluoranthene	ug/L	ND	50	50	58.4	58.4	117	117	50-130	0	30	
Benzoic Acid	ug/L	ND	250	250	ND	ND	1	2	10-130		30	M0
Benzyl alcohol	ug/L	ND	100	100	83.6	82.9	84	83	20-130	1	30	
bis(2-Chloroethoxy)methane	ug/L	ND	50	50	51.5	49.8	103	100	30-130	3	30	
bis(2-Chloroethyl) ether	ug/L	ND	50	50	54.2	52.3	108	105	30-130	4	30	
bis(2-Ethylhexyl)phthalate	ug/L	ND	50	50	73.3	72.9	147	146	50-130	1	30	M0,v1
Butylbenzylphthalate	ug/L	ND	50	50	71.9	70.9	144	142	50-150	1	30	
Chrysene	ug/L	ND	50	50	58.5	56.6	117	113	50-130	3	30	
Di-n-butylphthalate	ug/L	3.0J	50	50	69.7	68.2	133	130	50-130	2	30	M0
Di-n-octylphthalate	ug/L	ND	50	50	80.3	79.0	161	158	50-130	2	30	M0,v1
Dibenz(a,h)anthracene	ug/L	ND	50	50	61.2	60.8	122	122	40-130	1	30	
Dibenzofuran	ug/L	ND	50	50	53.2	51.1	106	102	40-130	4	30	
Diethylphthalate	ug/L	2.1J	50	50	62.9	61.6	122	119	40-130	2	30	
Dimethylphthalate	ug/L	ND	50	50	56.7	54.9	113	110	40-130	3	30	
Fluoranthene	ug/L	ND	50	50	60.6	59.6	121	119	30-130	2	30	
Fluorene	ug/L	ND	50	50	54.3	52.8	109	106	20-130	3	30	
Hexachloro-1,3-butadiene	ug/L	ND	50	50	38.1	31.8	76	64	10-130	18	30	
Hexachlorobenzene	ug/L	ND	50	50	50.3	49.3	101	99	30-130	2	30	
Hexachlorocyclopentadiene	ug/L	ND	50	50	35.3	32.4	71	65	10-150	9	30	
Hexachloroethane	ug/L	ND	50	50	43.2	37.6	86	75	10-130	14	30	
Indeno(1,2,3-cd)pyrene	ug/L	ND	50	50	61.4	60.8	123	122	40-130	1	30	
Isophorone	ug/L	ND	50	50	55.2	53.1	110	106	30-130	4	30	
N-Nitroso-di-n-propylamine	ug/L	ND	50	50	51.1	49.5	102	99	30-130	3	30	
N-Nitrosodimethylamine	ug/L	ND	50	50	40.8	38.9	82	78	10-130	5	30	
N-Nitrosodiphenylamine	ug/L	ND	50	50	54.8	53.4	110	107	30-130	2	30	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2876357 2876358												
Parameter	Units	92475920001		MS		MSD		MS		MSD		Qual
		Result	Conc.	Spike	Conc.	Result	Conc.	% Rec	% Rec	Limits	RPD	
Naphthalene	ug/L	ND	50	50	50	49.5	45.8	99	92	20-130	8	30
Nitrobenzene	ug/L	ND	50	50	50	51.0	50.2	102	100	20-130	2	30
Pentachlorophenol	ug/L	ND	100	100	100	65.7	88.1	66	88	10-140	29	30
Phenanthrene	ug/L	ND	50	50	50	55.1	53.3	110	107	50-130	3	30
Phenol	ug/L	3.8J	50	50	50	28.8	29.1	50	51	10-130	1	30
Pyrene	ug/L	ND	50	50	50	55.1	54.5	110	109	50-130	1	30
2,4,6-Tribromophenol (S)	%							131	140	10-137		S0
2-Fluorobiphenyl (S)	%							119	119	13-130		
2-Fluorophenol (S)	%							76	85	10-130		
Nitrobenzene-d5 (S)	%							125	124	13-130		
Phenol-d6 (S)	%							65	67	10-130		
Terphenyl-d14 (S)	%							159	165	25-130		S0

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

QC Batch: 539742

Analysis Method: EPA 8270E

QC Batch Method: EPA 3510C

Analysis Description: 8270E Water MSSV RVE

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92475821001, 92475821002

METHOD BLANK: 2876883

Matrix: Water

Associated Lab Samples: 92475821001, 92475821002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	10.0	1.6	05/06/20 13:03	
1,2-Dichlorobenzene	ug/L	ND	10.0	1.4	05/06/20 13:03	
1,3-Dichlorobenzene	ug/L	ND	10.0	1.4	05/06/20 13:03	
1,4-Dichlorobenzene	ug/L	ND	10.0	1.5	05/06/20 13:03	
1-Methylnaphthalene	ug/L	ND	10.0	1.4	05/06/20 13:03	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	1.3	05/06/20 13:03	v1
2,4,5-Trichlorophenol	ug/L	ND	10.0	1.5	05/06/20 13:03	
2,4,6-Trichlorophenol	ug/L	ND	10.0	1.4	05/06/20 13:03	
2,4-Dichlorophenol	ug/L	ND	10.0	1.5	05/06/20 13:03	
2,4-Dimethylphenol	ug/L	ND	10.0	1.5	05/06/20 13:03	
2,4-Dinitrophenol	ug/L	ND	50.0	7.3	05/06/20 13:03	
2,4-Dinitrotoluene	ug/L	ND	10.0	1.7	05/06/20 13:03	
2,6-Dinitrotoluene	ug/L	ND	10.0	1.7	05/06/20 13:03	
2-Chloronaphthalene	ug/L	ND	10.0	1.4	05/06/20 13:03	
2-Chlorophenol	ug/L	ND	10.0	1.4	05/06/20 13:03	
2-Methylnaphthalene	ug/L	ND	10.0	1.4	05/06/20 13:03	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	1.2	05/06/20 13:03	
2-Nitroaniline	ug/L	ND	20.0	3.0	05/06/20 13:03	
2-Nitrophenol	ug/L	ND	10.0	1.7	05/06/20 13:03	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	1.2	05/06/20 13:03	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	2.7	05/06/20 13:03	
3-Nitroaniline	ug/L	ND	20.0	2.8	05/06/20 13:03	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	4.5	05/06/20 13:03	
4-Bromophenylphenyl ether	ug/L	ND	10.0	1.2	05/06/20 13:03	
4-Chloro-3-methylphenol	ug/L	ND	10.0	2.8	05/06/20 13:03	
4-Chloroaniline	ug/L	ND	20.0	2.8	05/06/20 13:03	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	1.5	05/06/20 13:03	
4-Nitroaniline	ug/L	ND	20.0	3.1	05/06/20 13:03	
4-Nitrophenol	ug/L	ND	50.0	9.4	05/06/20 13:03	
Acenaphthene	ug/L	ND	10.0	1.4	05/06/20 13:03	
Acenaphthylene	ug/L	ND	10.0	1.5	05/06/20 13:03	
Aniline	ug/L	ND	10.0	1.6	05/06/20 13:03	
Anthracene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Benzo(a)anthracene	ug/L	ND	10.0	1.5	05/06/20 13:03	
Benzo(a)pyrene	ug/L	ND	10.0	1.8	05/06/20 13:03	
Benzo(b)fluoranthene	ug/L	ND	10.0	1.7	05/06/20 13:03	
Benzo(g,h,i)perylene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Benzo(k)fluoranthene	ug/L	ND	10.0	1.5	05/06/20 13:03	
Benzoic Acid	ug/L	ND	50.0	19.5	05/06/20 13:03	
Benzyl alcohol	ug/L	ND	20.0	2.6	05/06/20 13:03	

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

METHOD BLANK: 2876883

Matrix: Water

Associated Lab Samples: 92475821001, 92475821002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	1.3	05/06/20 13:03	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	1.7	05/06/20 13:03	
bis(2-Ethylhexyl)phthalate	ug/L	ND	6.0	2.0	05/06/20 13:03	
Butylbenzylphthalate	ug/L	ND	10.0	1.9	05/06/20 13:03	
Chrysene	ug/L	ND	10.0	1.4	05/06/20 13:03	
Di-n-butylphthalate	ug/L	ND	10.0	1.6	05/06/20 13:03	
Di-n-octylphthalate	ug/L	ND	10.0	2.2	05/06/20 13:03	v1
Dibenz(a,h)anthracene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Dibenzofuran	ug/L	ND	10.0	1.3	05/06/20 13:03	
Diethylphthalate	ug/L	ND	10.0	1.6	05/06/20 13:03	
Dimethylphthalate	ug/L	ND	10.0	1.4	05/06/20 13:03	
Fluoranthene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Fluorene	ug/L	ND	10.0	1.4	05/06/20 13:03	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Hexachlorobenzene	ug/L	ND	10.0	1.3	05/06/20 13:03	
Hexachlorocyclopentadiene	ug/L	ND	10.0	2.4	05/06/20 13:03	
Hexachloroethane	ug/L	ND	10.0	1.3	05/06/20 13:03	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	1.7	05/06/20 13:03	
Isophorone	ug/L	ND	10.0	1.3	05/06/20 13:03	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	1.3	05/06/20 13:03	
N-Nitrosodimethylamine	ug/L	ND	10.0	1.8	05/06/20 13:03	
N-Nitrosodiphenylamine	ug/L	ND	10.0	1.4	05/06/20 13:03	
Naphthalene	ug/L	ND	10.0	1.6	05/06/20 13:03	
Nitrobenzene	ug/L	ND	10.0	1.5	05/06/20 13:03	
Pentachlorophenol	ug/L	ND	20.0	2.8	05/06/20 13:03	
Phenanthrene	ug/L	ND	10.0	1.4	05/06/20 13:03	
Phenol	ug/L	ND	10.0	1.5	05/06/20 13:03	
Pyrene	ug/L	ND	10.0	1.5	05/06/20 13:03	
2,4,6-Tribromophenol (S)	%	78	10-137		05/06/20 13:03	
2-Fluorobiphenyl (S)	%	87	13-130		05/06/20 13:03	
2-Fluorophenol (S)	%	61	10-130		05/06/20 13:03	
Nitrobenzene-d5 (S)	%	99	13-130		05/06/20 13:03	
Phenol-d6 (S)	%	55	10-130		05/06/20 13:03	
Terphenyl-d14 (S)	%	133	25-130		05/06/20 13:03	S3

LABORATORY CONTROL SAMPLE: 2876884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	26.6	53	30-130	
1,2-Dichlorobenzene	ug/L	50	27.3	55	30-130	
1,3-Dichlorobenzene	ug/L	50	26.2	52	20-130	
1,4-Dichlorobenzene	ug/L	50	28.6	57	30-130	
1-Methylnaphthalene	ug/L	50	33.9	68	30-130	
2,2'-Oxybis(1-chloropropane)	ug/L	50	55.6	111	20-130	v1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

LABORATORY CONTROL SAMPLE: 2876884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L	50	40.4	81	40-130	
2,4,6-Trichlorophenol	ug/L	50	40.2	80	40-130	
2,4-Dichlorophenol	ug/L	50	41.8	84	31-130	
2,4-Dimethylphenol	ug/L	50	41.5	83	30-130	
2,4-Dinitrophenol	ug/L	250	212	85	30-130	
2,4-Dinitrotoluene	ug/L	50	47.9	96	49-130	
2,6-Dinitrotoluene	ug/L	50	47.5	95	50-130	
2-Chloronaphthalene	ug/L	50	34.0	68	30-130	
2-Chlorophenol	ug/L	50	41.4	83	30-130	
2-Methylnaphthalene	ug/L	50	33.9	68	30-130	
2-Methylphenol(o-Cresol)	ug/L	50	40.0	80	30-130	
2-Nitroaniline	ug/L	100	82.0	82	40-130	
2-Nitrophenol	ug/L	50	47.5	95	20-130	
3&4-Methylphenol(m&p Cresol)	ug/L	50	36.1	72	20-130	
3,3'-Dichlorobenzidine	ug/L	100	87.2	87	10-150	
3-Nitroaniline	ug/L	100	95.6	96	40-130	
4,6-Dinitro-2-methylphenol	ug/L	100	94.6	95	40-130	
4-Bromophenylphenyl ether	ug/L	50	37.4	75	30-130	
4-Chloro-3-methylphenol	ug/L	100	87.1	87	30-130	
4-Chloroaniline	ug/L	100	79.5	80	20-130	
4-Chlorophenylphenyl ether	ug/L	50	36.0	72	20-130	
4-Nitroaniline	ug/L	100	92.1	92	40-130	
4-Nitrophenol	ug/L	250	122	49	10-130	
Acenaphthene	ug/L	50	38.4	77	30-130	
Acenaphthylene	ug/L	50	40.5	81	30-130	
Aniline	ug/L	50	34.6	69	20-130	
Anthracene	ug/L	50	42.0	84	50-130	
Benzo(a)anthracene	ug/L	50	45.7	91	50-130	
Benzo(a)pyrene	ug/L	50	45.4	91	50-130	
Benzo(b)fluoranthene	ug/L	50	45.7	91	50-130	
Benzo(g,h,i)perylene	ug/L	50	46.4	93	50-130	
Benzo(k)fluoranthene	ug/L	50	46.4	93	50-130	
Benzoic Acid	ug/L	250	124	49	10-130	
Benzyl alcohol	ug/L	100	73.1	73	20-130	
bis(2-Chloroethoxy)methane	ug/L	50	41.1	82	30-130	
bis(2-Chloroethyl) ether	ug/L	50	42.2	84	30-130	
bis(2-Ethylhexyl)phthalate	ug/L	50	55.5	111	50-130	
Butylbenzylphthalate	ug/L	50	54.6	109	50-150	
Chrysene	ug/L	50	44.5	89	50-130	
Di-n-butylphthalate	ug/L	50	50.4	101	50-130	
Di-n-octylphthalate	ug/L	50	59.4	119	50-130 v1	
Dibenz(a,h)anthracene	ug/L	50	47.1	94	40-130	
Dibenzofuran	ug/L	50	38.2	76	40-130	
Diethylphthalate	ug/L	50	45.6	91	40-130	
Dimethylphthalate	ug/L	50	42.8	86	40-130	
Fluoranthene	ug/L	50	44.5	89	30-130	
Fluorene	ug/L	50	40.0	80	20-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

LABORATORY CONTROL SAMPLE: 2876884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachloro-1,3-butadiene	ug/L	50	23.3	47	10-130	
Hexachlorobenzene	ug/L	50	37.9	76	30-130	
Hexachlorocyclopentadiene	ug/L	50	22.0	44	10-150	
Hexachloroethane	ug/L	50	25.9	52	10-130	
Indeno(1,2,3-cd)pyrene	ug/L	50	46.4	93	40-130	
Isophorone	ug/L	50	45.6	91	30-130	
N-Nitroso-di-n-propylamine	ug/L	50	42.0	84	30-130	
N-Nitrosodimethylamine	ug/L	50	35.4	71	10-130	
N-Nitrosodiphenylamine	ug/L	50	41.5	83	30-130	
Naphthalene	ug/L	50	33.4	67	20-130	
Nitrobenzene	ug/L	50	41.7	83	20-130	
Pentachlorophenol	ug/L	100	84.4	84	10-140	
Phenanthrene	ug/L	50	41.5	83	50-130	
Phenol	ug/L	50	26.3	53	10-130	
Pyrene	ug/L	50	45.5	91	50-130	
2,4,6-Tribromophenol (S)	%			101	10-137	
2-Fluorobiphenyl (S)	%			82	13-130	
2-Fluorophenol (S)	%			72	10-130	
Nitrobenzene-d5 (S)	%			96	13-130	
Phenol-d6 (S)	%			56	10-130	
Terphenyl-d14 (S)	%			119	25-130	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Beaufort NCDOT U-6058
Pace Project No.: 92475821

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.
 TNTC - Too Numerous To Count
 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 - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
 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.
 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.

ANALYTE QUALIFIERS

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
 L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
 M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
 M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
 S0 Surrogate recovery outside laboratory control limits.
 S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
 v1 The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Beaufort NCDOT U-6058

Pace Project No.: 92475821

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92475821001	MW-2	EPA 3510C	539742	EPA 8270E	539942
92475821002	MW-7	EPA 3510C	539742	EPA 8270E	539942
92475821003	MW-8	EPA 3510C	539615	EPA 8270E	539716
92475821004	MW-5	EPA 3510C	539615	EPA 8270E	539716
92475821001	MW-2	SM 6200B	539966		
92475821002	MW-7	SM 6200B	539759		
92475821003	MW-8	SM 6200B	539966		
92475821004	MW-5	SM 6200B	539966		

REPORT OF LABORATORY ANALYSIS

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	Document Name:	Document Revised: February 7, 2018
	Sample Condition Upon Receipt(SCUR)	Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

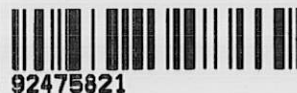
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐

Sample Condition
Upon Receipt

Client Name:

Project #:

WO# : 92475821



Courier: ☐ Commercial ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other: _____

Custody Seal Present? ☐ Yes ☒ No Seals Intact? ☐ Yes ☒ No

Date/Initials Person Examining Contents: S-1-20 SK

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen?

☐ Yes ☒ No ☐ N/A

Thermometer:

☒ IR Gun ID: 92T061

Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temp (°C): 1.6 Correction Factor: Add/Subtract (°C) +0.1

Temp should be above freezing to 6°C

Cooler Temp Corrected (°C): 1.7

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil ☒ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

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.
Dissolved analysis: Samples Field Filtered? ☐ Yes ☐ No ☒ N/A	8.
Sample Labels Match COC? ☒ Yes ☐ No ☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT	
Headspace in VOA Vials (>5-6mm)? ☐ Yes ☒ No ☐ N/A	10.
Trip Blank Present? ☐ Yes ☒ No ☐ N/A	11.
Trip Blank Custody Seals Present? ☐ Yes ☐ No ☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☒ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

	Document Name:	Document Revised: February 7, 2018
	Sample Condition Upon Receipt(SCUR)	Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Project #

WO#: 92475821

PM: PTE

Due Date: 05/08/20

CLIENT: 92-TrronWint

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AGOU-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																5											2		
2																4											2		
3																4											2		
4																4											2		
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: <u>1281222</u> Address: <u>314 Brown Drive</u> Email To: <u>Allen.McLellan@terraman.com</u> Phone: <u>252-353-1600</u> Fax: <u>252-353-0002</u> Requested Due Date/TAT: _____		Section B Required Project Information: Report To: <u>Allen McLellan</u> Copy To: _____ Purchase Order No.: <u>72307023</u> Project Name: <u>Beaufort NCDOT</u> Project Number: <u>72307023</u>		Section C Invoice Information: Attention: _____ Company Name: <u>Same</u> Address: _____ Pace Quote Reference: _____ Pace Project Manager: _____ Pace Profile #: _____	
Section D Required Client Information: Matrix Codes MATRIX CODE Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Tissue Other SAMPLE ID (A-Z, 0-9 / .) Sample IDs MUST BE UNIQUE		Matrix Codes DW WT WW P SL OL WP AR TS OT		Sample ID (A-Z, 0-9 / .) Sample IDs MUST BE UNIQUE	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED			# OF CONTAINERS	Preservatives	Analysis Test ↑	Y/N	Requested Analysis Filtered (Y/N)											
				COMPOSITE START	COMPOSITE END/GRAB	DATE	TIME	DATE	TIME													
1	MW-2		WT			4-29-2023	10:45am			X												
2	MW-7		WT				11:05am			X												
3	MW-8		WT				11:55am			X												
4	MW-5		WT				12:15pm			X												
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS <u>NCDOT</u>		RELINQUISHED BY / AFFILIATION <u>Nick Sured Teraman</u>	DATE <u>4/30/2023</u>	TIME <u>9:10</u>	ACCEPTED BY / AFFILIATION <u>Stefen Pace</u>	DATE <u>5-1-20</u>	TIME <u>9:00</u>	SAMPLE CONDITIONS Ice (Y/N) <u>Y</u> Sealed Cooler (Y/N) <u>Y</u> Custody (Y/N) <u>Y</u> Samples Intact (Y/N) <u>Y</u>
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ORIGINAL

*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.

APPENDIX D
GROUNDWATER SAMPLING LOGS

Groundwater Sampling Log

Terracon

Project No. 72207023
 Site Location 120 Line Creek
 Weather Sunny

Date 4-28-2020
 Well ID TW-1
 Sample Collection Time 2:36pm

Casing

Diameter	Gal/ft	L/ft
☐ 6	1.47	5.56
☐ 4	.653	2.47
☐ 3	.367	1.39
☒ 2	.163	.618
☒ 1	.041	.154
☐ 3/4	.023	.087

Evacuation Data

Screen Length (ft bls)	
Well Length (ft bTOC)	<u>10ft</u>
Depth to water (ft bTOC)	<u>6.46</u>
Water column length (ft)	<u>3.54</u>
Well Volume	<u>2.1</u>
Evacuation Volume (x <u>1</u>)	<u>2.1</u>

Sample Method

☒ Peristaltic ☐ Grundfos
☐ Bladder ☐ Monsoon
☐ Bailer ☐ PDB
☐ Monsoon

Purge Device

☐ Dedicated
☐ Disposable
☐ Decontaminated

QA/QC Samples

☐ Duplicate
☐ MS/MSD
☐ Equipment Blank
☐ Field Blank

Sample ID for QA/QC

Field Parameters

Time	Purge	Temp (°C)	pH (SU)	DO (mg/L)	Cond. (µmhos/cm)	Turb. (NTU)
2:27pm	175L	12.24	5.84	0.83	338	7.7
2:32pm	1.25	16.72	5.81	0.80	327	8.5
2:35pm	2.1	16.56	5.86	0.80	324	8.1

Start Purge

2:20pm

Sample
2:36pm

Laboratory Analyses

Analytical Parameter	Method	No. Bottles	Bottle Size/Type	Preservative
☐ VOCs	6200B	4	40 mL glass	HCl

Notes: _____

Sampling Personnel: _____

Groundwater Sampling Log

Terracon

Site Name: U-6058

Well ID: MW-2

Project Number: NCDOT Project U-6058, Terracon PN: 72207023

Sample Date: 04/29/20

Site Location: Beaufort, NC

Sampler Initials: ED

Weather: Sunny 70s F

Sample Time: 1045

GAUGING DATA

Gauging Date: 04/29/20

Screen Interval (ft bls): Unknown

Total Depth (ft bTOC): 8.67

Depth to water (ft bTOC): 3.65

Water column length (ft): 5.02

Well Volume: 0.815 gals

Well Diameter	Gal/ft	L/ft
6"	1.47	5.56
4"	0.653	2.47
<u>2"</u>	<u>0.163</u>	0.618
1"	0.041	0.154
3/4"	0.023	0.087

Sample Method

- ☒ Peristaltic
☐ Bladder
☐ Bailer
- ☐ Grundfos
☐ Monsoon
☐ PDB

Purge Device

- ☐ Dedicated
☒ Disposable
☐ Decontaminated

QA/QC Samples

- ☐ Duplicate
☐ MS/MSD
☐ Equipment Blank

QA/QC Sample ID

FIELD PARAMETERS

Time	Purge Vol. (gal)	Temp (°C)	pH (SU)	DO (mg/L)	Cond. (µmhos/cm)	Turbidity (NTU)	ORP (mV)	Flow (ml/min)	Water Depth (ft bTOC)
945	—	—	—	—	—	—	—	—	—
955	0.5	22.23	7.57	1.35	223	—	25.2	150	—
1000	0.7	22.14	7.56	1.47	236	—	2.7	150	—
1005	0.9	22.06	7.65	1.20	247	—	-13.6	150	—
1010	1.1	22.27	7.70	1.10	258	—	-23.2	150	—
1015	1.3	22.16	7.73	0.98	275	—	-36.8	150	—
1020	1.5	22.12	7.72	0.91	285	—	-36.0	150	—
1025	1.7	22.31	7.71	0.88	310	—	-40.6	150	—
1030	1.9	22.04	7.58	0.90	340	—	-51.6	150	—
1035	2.1	22.05	7.53	0.86	367	—	-53.4	150	—
1040	2.3	22.01	7.50	0.78	389	—	-55.6	150	—

LABORATORY ANALYSIS

Analytical Parameter	Method	Bottle Size/Type	No. Bottles	Preservative	Hold Time
SVOCs	SVOCs 8270		2		
VOCs	8260		4		

Notes: VST # 08750, sampled @ 6 ft. bTOC

Signature: _____

Date: 04/29/20

Groundwater Sampling Log

Terracon

Project No. 72207023
 Site Location Beaufort
 Weather _____

Date 4/28/2020
 Well ID MW-5
 Sample Collection Time 12:15pm

Casing

Diameter	Gal/ft	L/ft
☐ 6	1.47	5.56
☐ 4	.653	2.47
☐ 3	.367	1.39
☒ 2	.163	.618
☐ 1	.041	.154
☐ 3/4	.023	.087

Evacuation Data

Screen Length (ft bls)	_____
Well Length (ft bTOC)	<u>9.01</u>
Depth to water (ft bTOC)	<u>2.71</u>
Water column length (ft)	<u>6.3</u>
Well Volume	<u>3.89</u>
Evacuation Volume (x)	<u>3.89</u>

Sample Method

- ☒ Peristaltic
☐ Bladder
☐ Bailer
☐ Monsoon
☐ Grundfos
☐ Monsoon
☐ PDB

Purge Device

- ☐ Dedicated
☐ Disposable
☐ Decontaminated

QA/QC Samples

- ☐ Duplicate
☐ MS/MSD
☐ Equipment Blank
☐ Field Blank

Sample ID for QA/QC

Field Parameters

Time	Purge	Temp (°C)	pH (SU)	DO (mg/L)	Cond. (µmhos/cm)	Turb. (NTU)
<u>11:52am</u>	<u>3.0L</u>	<u>21.12</u>	<u>6.96</u>	<u>2.33</u>	<u>887</u>	<u>22.4</u>
<u>11:57am</u>	<u>3.5L</u>	<u>21.19</u>	<u>6.97</u>	<u>0.64</u>	<u>877</u>	<u>6.3</u>
<u>12:02</u>	<u>4.0L</u>	<u>21.46</u>	<u>6.99</u>	<u>1.11</u>	<u>886</u>	<u>14.3</u>
<u>12:07</u>	<u>4.5L</u>	<u>20.41</u>	<u>7.05</u>	<u>1.10</u>	<u>886</u>	<u>10.9</u>
<u>12:12</u>	<u>5.0L</u>	<u>20.84</u>	<u>7.07</u>	<u>0.21</u>	<u>890</u>	<u>2.3</u>

Start purge

11:32am

Sample @

12:15pm

Laboratory Analyses

Analytical Parameter	Method	No. Bottles	Bottle Size/Type	Preservative
☐ VOCs	6200B	4	40 mL glass	HCl

Notes: _____

Sampling Personnel: _____

Groundwater Sampling Log

Terracon

Project No. 72207023
 Site Location _____
 Weather _____

Date _____
 Well ID MW-7
 Sample Collection Time 11:05am

Casing

Diameter	Gal/ft	L/ft
☐ 6	1.47	5.56
☐ 4	.653	2.47
☐ 3	.367	1.39
☒ 2	.163	<u>618</u>
☐ 1	.041	.154
☐ 3/4	.023	.087

Evacuation Data

Screen Length (ft bls)	_____
Well Length (ft bTOC)	<u>8.90</u>
Depth to water (ft bTOC)	<u>2.96</u>
Water column length (ft)	<u>5.94</u>
Well Volume	<u>3.67</u>
Evacuation Volume (x <u>1</u>)	<u>3.67</u>

Sample Method

☒ Peristaltic ☐ Grundfos
☐ Bladder ☐ Monsoon
☐ Bailer ☐ PDB
☐ Monsoon

Purge Device

☐ Dedicated
☐ Disposable
☐ Decontaminated

QA/QC Samples

☐ Duplicate
☐ MS/MSD
☐ Equipment Blank
☐ Field Blank

Sample ID for QA/QC

Field Parameters

Time	Purge	Temp (°C)	pH (SU)	DO (mg/L)	Cond. (µmhos/cm)	Turb. (NTU)
<u>10:18am</u>	<u>3.0L</u>	<u>18.23</u>	<u>6.50</u>	<u>1.40</u>	<u>396</u>	<u>14.7</u>
<u>10:53am</u>	<u>3.5L</u>	<u>18.10</u>	<u>6.47</u>	<u>1.14</u>	<u>394</u>	<u>6.47</u> <u>11.9</u>
<u>10:58am</u>	<u>4.0L</u>	<u>18.05</u>	<u>6.48</u>	<u>0.94</u>	<u>396</u>	<u>9.4</u>
<u>11:03am</u>	<u>4.5L</u>	<u>18.60</u>	<u>6.47</u>	<u>0.80</u>	<u>398</u>	<u>8.2</u>

*Start Purge
10:28am*

*Sample
@ 11:05am*

Laboratory Analyses

Analytical Parameter	Method	No. Bottles	Bottle Size/Type	Preservative
☐ VOCs	6200B	4	40 mL glass	HCl

Notes: _____

Sampling Personnel: _____

Groundwater Sampling Log

Terracon

Site Name: U-6058

Well ID: MW-8

Project Number: NCDOT Project U-6058, Terracon PN: 72207023

Sample Date: 04/29/20

Site Location: Beaufort, NC

Sampler Initials: ED

Weather: Sunny, 70°F

Sample Time: 1155

GAUGING DATA

Gauging Date: 04/29/20

Screen Interval (ft bls): Unknown

Total Depth (ft bTOC): 11.3

Depth to water (ft bTOC): 4.51

Water column length (ft): 6.8

Well Volume: 1.1

Well Diameter	Gal/ft	L/ft
6"	1.47	5.56
4"	0.653	2.47
<u>2"</u>	<u>0.163</u>	0.618
1"	0.041	0.154
3/4"	0.023	0.087

Sample Method

- ☒ Peristaltic
☐ Bladder
☐ Bailer
- ☐ Grundfos
☐ Monsoon
☐ PDB

Purge Device

- ☐ Dedicated
☒ Disposable
☐ Decontaminated

QA/QC Samples

- ☐ Duplicate
☐ MS/MSD
☐ Equipment Blank

QA/QC Sample ID

FIELD PARAMETERS

Time	Purge Vol. (gal)	Temp (°C)	pH (SU)	DO (mg/L)	Cond. (µmhos/cm)	Turbidity (NTU)	ORP (mV)	Flow (ml/min)	Water Depth (ft bTOC)
1130	—	—	—	—	—	—	—	—	—
1135	0.2	20.46	6.87	1.75	382	—	48.6	150	—
1140	0.4	20.43	6.82	1.37	381	—	37.1	150	—
1145	0.6	20.40	6.83	1.27	382	—	31.9	150	—
1150	0.8	20.38	6.84	1.24	383	—	29.1	150	—

LABORATORY ANALYSIS

Analytical Parameter	Method	Bottle Size/Type	No. Bottles	Preservative	Hold Time
SVOCs	8270		2		
VOCs	8260		4		

Notes: YSI #02756, sampled @ 8 ft bTOC

Signature: _____

Date: 04/29/20