PRELIMINARY SITE ASSESSMENT PARCEL #17 601 EAST ELIZABETH STREET ELIZABETH CITY, NORTH CAROLINA STATE PROJECT: U-4438 WBS ELEMENT: 35742.1.1

Prepared for:

NC Department of Transportation

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

Prepared by:

Solutions-IES

1101 Nowell Road Raleigh, North Carolina 27607

Solutions-IES Project No. 3946.10A3.NDOT

September 10, 2010

Jody Overmyer, P.E. Project Engineer

Sheri L. Knox Senior Project Manager

Shi LKX

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1.0 INTRODUCTION

Parcel #17 in Pasquotank County located at 601 East Elizabeth Street, Elizabeth City, North Carolina, is currently used as retail office space. The location of the property is shown on **Figures 1** and **2**. The North Carolina Department of Transportation (NCDOT) plans to acquire the proposed easement at this property due to the planned widening of Elizabeth Street in downtown Elizabeth City. This report summarizes the results of field and laboratory activities conducted during the Preliminary Site Assessment (PSA) of the subject property. The scope of work executed at the site was performed in general accordance with Solutions-IES proposal NC101099 revised June 16, 2010, and was initiated based on a Notice to Proceed issued by the NCDOT Geotechnical Engineering Unit on June 24, 2010, under contract 7000010453, dated June 25, 2009.

2.0 BACKGROUND AND SITE DESCRIPTION

A. Josh Tunnell owns Parcel #17 which is currently occupied as office space. It is located in the southeast quadrant of East Elizabeth Street and North Poindexter Street. According to the North Carolina Department of Environment and Natural Resources (NCDENR) underground storage tank (UST) registry, there are no known Facility IDs or Groundwater Incidents associated with this property. The PSA was performed along the proposed easement which stretched west to east along the south side of East Elizabeth Street continuing on a north to south trend along North Poindexter Street. Work was not performed in areas of the properties outside of the proposed easement. Photographs of the site are included in **Appendix A**.

3.0 FIELD ACTIVITIES

Prior to mobilizing to the site to conduct work, Solutions-IES contacted North Carolina One Call and contracted Accumark to locate underground utilities at the site. Pyramid Environmental & Engineering, P.C. (Pyramid) was contracted to perform a geophysical survey, and mobilized to the study area July 7 and July 8, 2010. The geophysical investigation consisted of electromagnetic (EM) induction-metal detection surveys using a Geonics EM61-MK1 metal detection instrument and ground penetrating radar (GPR) surveys using a GSSI SIR-2000 unit equipped with a 400 MHz antenna. Results of the survey suggested that the surveyed portion within the proposed easement at Parcel #17 does not contain metallic underground storage tanks (USTs). Images of the EM and GPR findings are included in the geophysical report included as **Appendix B**. After a review of the geophysical report, Solutions-IES mobilized to the

site on August 3, 2010, to collect soil and groundwater samples. Four soil borings were advanced to a depth of 4 feet below ground surface (ft bgs) using a Geoprobe[®]. The approximate locations of the soil borings are displayed in **Figure 3**. The GPS coordinates of the boring locations are included in **Appendix C**. Boring 601-1 was advanced to a depth of 8 feet bgs to install a temporary well. Soil samples were not collected below 4 ft bgs due to indications of saturated soil.

A Macro-Core[®] sampler fitted with a 4-foot dedicated polyvinyl chloride (PVC) liner was used to collect samples with a Geoprobe[®]. The Macro-Core[®] liner was divided and sampled in 2-foot intervals. Each soil sample was split into two aliquots. Each aliquot was placed in a separate resealable plastic bag. One bag was placed on ice for possible laboratory analysis, while the other bag was sealed and placed at ambient temperature for field screening with a flame ionization detector (FID). After approximately 20 minutes to allow accumulation of volatile organic compounds (VOCs) in the headspace of the bag, each bag was scanned with the FID. The FID measurements were entered into the field logbook along with the soil description and any indications of staining or odor. That information was subsequently transferred onto boring logs. The boring logs are provided in **Appendix D** and the field screening results are summarized in **Table 1**. The field screening results are also shown on the boring logs.

The subsurface at the site generally consisted of brown to tan silty sand with clay (Unified Soil Classification SM and SC). The depth to groundwater was measured at approximately 3 ft bgs in a representative borehole by lowering a decontaminated water level probe into the borehole soon after the boring was opened.

Table 1 shows the FID field screening results of the soils ranged from not detected to 405 parts per million (ppm). One soil sample was collected from each boring at the interval identified in **Table 1** and analyzed for total petroleum hydrocarbons gasoline range organics and diesel range organics (TPH GRO/DRO) by EPA Methods 5035/3545/8015. The samples were placed in laboratory-supplied jars and stored on ice pending courier service to Prism Laboratories in Charlotte, NC. Two soil samples collected at borings 601-1 and 601-3 were also analyzed for fecal coliform by method SM9221E. Each collected sample was placed in laboratory-supplied jars and stored on ice pending courier service to Environment 1 in Greenville, NC. Sample information was recorded on the chain-of-custody form.

Due to the shallow water table, a temporary groundwater monitoring well was installed and sampled. Upon completion of the boring at 601-1, a 5-foot section of 1-inch diameter PVC slotted well screen,

joined with an approximate 3-foot section of 1-inch diameter PVC riser, was introduced into the borehole. Natural formation caved in around the well screen to approximately 3 to 4 ft bgs. Washed #2 well sand was introduced into the annulus of the boring, forming a sand pack around the screen from the top of the natural formation to within 1.5-foot of surface grade. The temporary wells were allowed to equilibrate for approximately 30 minutes before sampling and promptly abandoned once sampling was complete.

Appendix D contains boring logs and well construction information. The stabilized water level was measured at 2.7 feet bgs. The well was then sampled with a peristaltic pump, utilizing 3/8-inch diameter disposable polyethylene tubing. Prior to sample collection field parameters including pH, temperature, dissolved oxygen (DO), oxidation reduction potential (ORP), turbidity and conductivity were allowed to stabilize then recorded. Groundwater samples obtained from the well were submitted for analysis of VOCs by EPA Methods 8260, semivolatile organic compounds (SVOCs) by EPA Method 8270 and fecal coliform by method SM9221 E. Each collected sample was placed in laboratory-supplied jars then stored on ice pending courier service to Prism Laboratories in Charlotte, NC (VOCs/SVOCs analysis) or Environment 1 in Greenville, NC (fecal coliform). Sample information was recorded on the chain-of-custody form.

4.0 LABORATORY RESULTS

The laboratory analytical results from samples collected indicate the presence of TPH (DRO) in soil and VOCs and fecal coliform bacteria in groundwater at concentrations above the laboratory reporting limits at Parcel #17. The analytical results are summarized in **Tables 2** and **3**, and the laboratory report is included in **Appendix E**.

Specifically, TPH (DRO) was detected at concentrations above the NCDENR action level for non-UST petroleum releases of 40 milligrams per kilogram (mg/kg)¹ at boring 601-4. TPH (DRO) was also detected in boring 601-1 at a concentration below the NCDENR action level. The non-UST petroleum release action levels were used as comparison since the source of contamination at the site is unknown and no USTs were detected within the proposed easement.

¹ UST Section Guidelines for the Investigation and Remediation of Contamination from Non-UST Petroleum Releases ([NCDENR, Division of Waste Management [DWM], UST Section, July 1, 2007).

² North Carolina Administrative Code Title 15A DENR Division of Water Quality (DWQ) Subchapter 2L Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina (Last Amended on January 1, 2010)

VOCs were detected in the groundwater sample from temporary well 601-1 at concentrations below the NCAC 15A 2L.0200 (NC 2L) groundwater standards². SVOCs were not detected above the laboratory reporting limit in the groundwater sample from well 601-1.

Fecal coliform bacteria was detected in well 601-1 at 30 most probable number cells per 100 milliliters (MPN/100 mL) which is above the NC 2L standard for groundwater of 1 MPN/100 mL. Fecal coliform bacteria were below laboratory reporting limits in either soil samples.

5.0 DISCUSSION/CONCLUSIONS

The geophysical survey conducted at the site suggested that no buried metallic objects such as a UST are present within the surveyed portion of the proposed easement. Solutions-IES advanced four soil borings at the study area to a depth of 4 ft bgs. Additionally, Boring 601-1 was further advanced to a depth of 8 ft bgs for the installation of a temporary well. The highest FID reading measured 405 ppm in boring 601-1 at a depth of 0 to 2 ft bgs. The soil sample from boring 601-4 indicates the presence of TPH (DRO) in excess of the NCDENR action level. Fecal coliform bacteria were detected above the NC 2L standard for groundwater in well 601-1.

The areal extent of TPH contamination in soil defined within the proposed ROW and/or easement is illustrated in **Figure 3**; contamination is estimated to extend to 2 ft bgs. The approximate total volume of soil with contaminants of concern in excess of the NCDENR action level within the study area at Parcel #17 is estimated at 30 bank cubic yards. Note that Solutions-IES attempted to identify the extent of unsaturated soil contamination. However, given local tidal fluctuations, it is possible that much of the soil has been in contact with groundwater and impacted with contaminants that may be present in groundwater. From the base drawing provided by NCDOT, it appears that road construction operations are planned in the vicinity of the borings advanced by Solutions-IES. Potential residual groundwater contamination may be encountered and impacted soil may be excavated during construction activities performed by NCDOT. Therefore, Solutions-IES recommends that NCDOT be prepared to monitor, transport, and dispose of impacted soil during construction activities and also consider exposure of workers to impacted soil and groundwater. Additional assessment would be necessary to identify the source of the contamination in soil and groundwater.



TABLE 1

Summary of Field Screening Results for Soil Parcel #17

601 E. Elizabeth Street

Elizabeth City, North Carolina

WBS Element: 35742.1.1; State Project: U-4438 Sample Collection Date: August 3, 2010

Sample Depth Below		Soil B	oring					
Ground Surface	601-1	601-1 601-2 601-3						
Ground Surface		FID Read	ing (ppm)					
0 - 2 feet	405	83.8	113	36.3				
2 - 4 feet	27.8	212.7	187.9	0.0				

Notes:

Samples denoted by shaded cells were submitted for laboratory analysis. FID readings were obtained with a Photovac MicroFID Flame Ionization Detector.

ppm = parts per million

TABLE 2

Summary of Soil Analytical Results Parcel #17

601 E. Elizabeth Street

Elizabeth City, North Carolina

WBS Element: 35742.1.1; State Project: U-4438 Sample Collection Date: August 3, 2010

Sample Inform	nation	Total Petroleum		
Boring Number	Depth (ft bgs)	Gasoline Range ¹ (mg/kg)	Diesel Range ² (mg/kg)	Fecal Coliform ³ (MPN/g)
601-1	0-2	< 0.66	20	<2
601-2	2-4	< 0.72	<1.4	NA
601-3	2-3	< 0.99	<1.4	<2
601-4	0-2	< 0.77	43	NA
Action Le	vel	10	40	NE

Notes

- 1. Total Petroleum Hydrocarbons (TPH) Method 5035/8015MOD Gasoline Range Hydrocarbons
- $2. \ \, Total\ Petroleum\ Hydrocarbons\ (TPH)\ Method\ 3545/8015MOD\ -\ Diesel\ Range\ Hydrocarbons$
- 3. Fecal Coliform SM9221 E

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

 $MPN/g = most \ probable \ number \ per \ gram$

Bold indicates value exceeds laboratory reporting limit.

NA = Not analyzed

Shaded values exceed NCDENR action level.

NE = Not established

TABLE 3

Summary of Groundwater Analytical Results Parcel #17

601 E. Elizabeth Street

Elizabeth City, North Carolina

WBS Element: 35742.1.1; State Project: U-4438 Sample Collection Date: August 4, 2010

Sample Information		V	/OCs (μg/I (8260)	Ĺ)		SVOCs (μg/L) (8270)	
Sample ID	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Methyl <i>tert</i> -butyl ether	Naphthalene	o-Xylene	All Analytes	Fecal Coliform (MPN/100 mL)
601-1	1.3	2.8	1.3	0.77 J	0.62 J	BRL	30
NC 2L Groundwater Quality Standards	400	400	20	6	500	NA	1

Notes:

VOCs = Volatile organic compounds by EPA Method 8260

SVOCs = Semivolatile organic compounds by EPA Method 8270

Fecal Coliform by SM9221 E

 $\mu g/L = Micrograms \ per \ liter$

MPN/100 mL = Most probable number cells per 100 milliliters

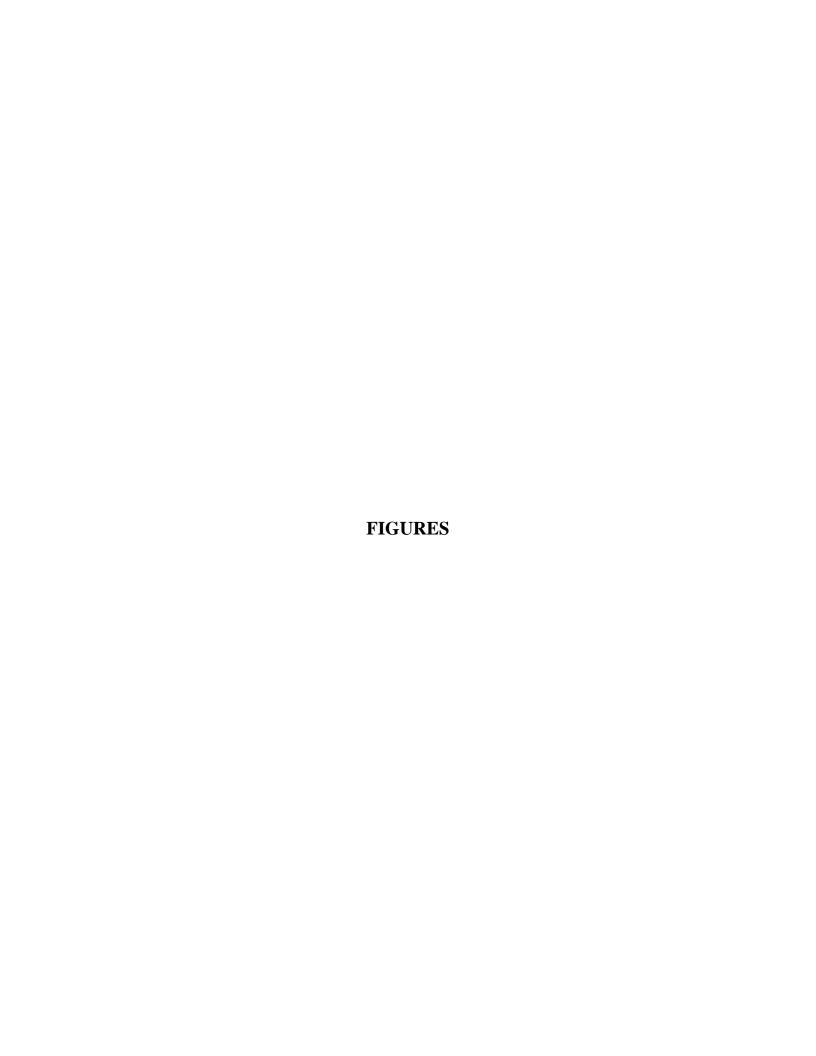
Bold indicates value exceeds laboratory reporting limit.

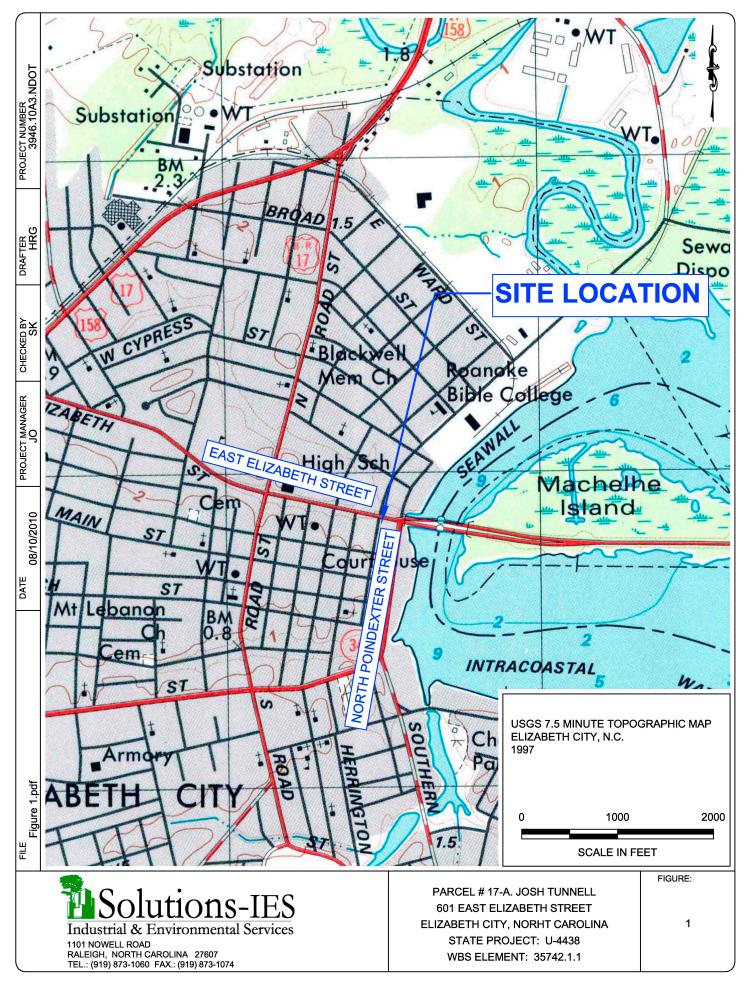
J = The analyte was positively identified but the value is estimated below the reporting limit

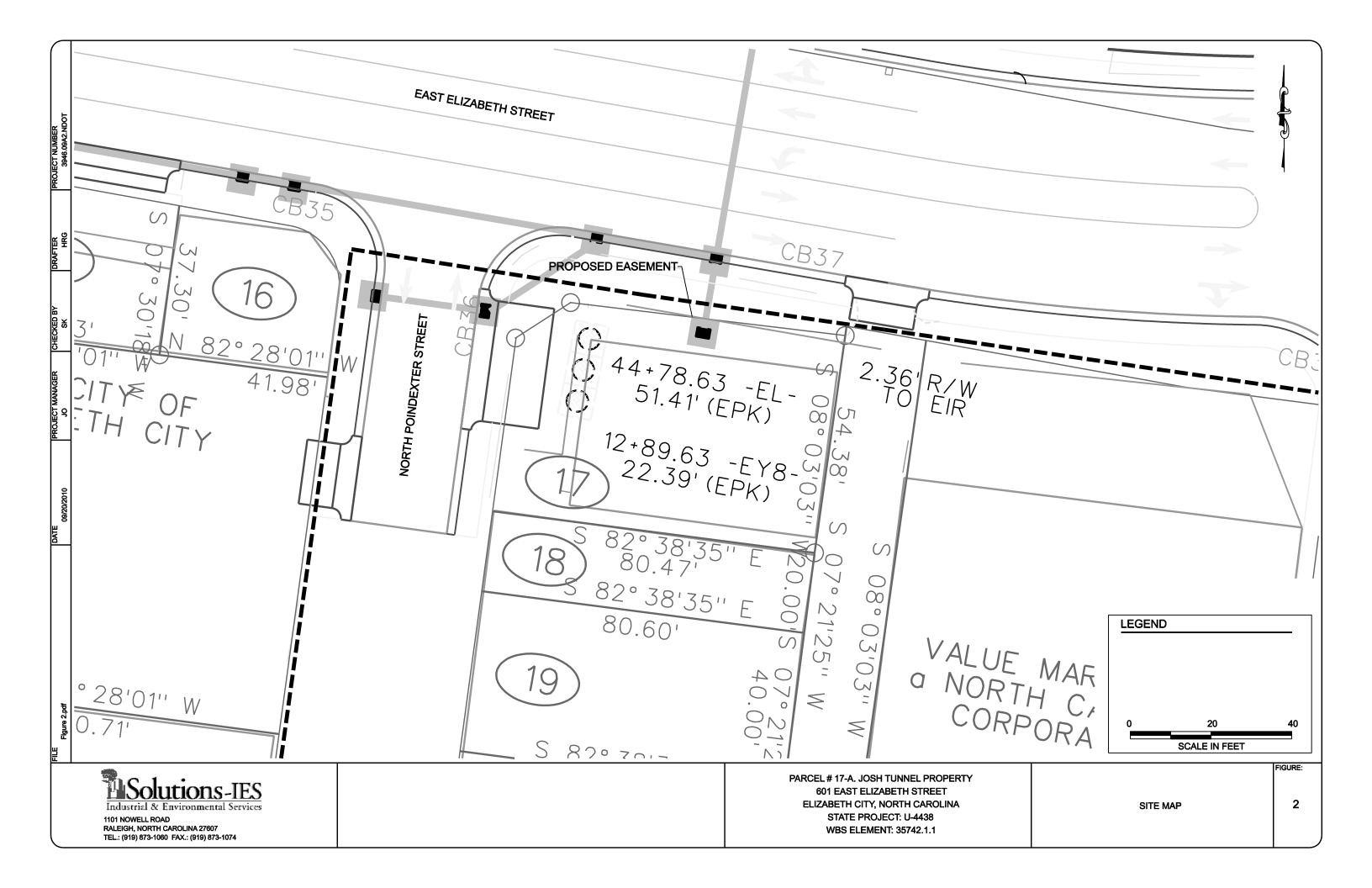
BRL = Below the laboratory reporting limit

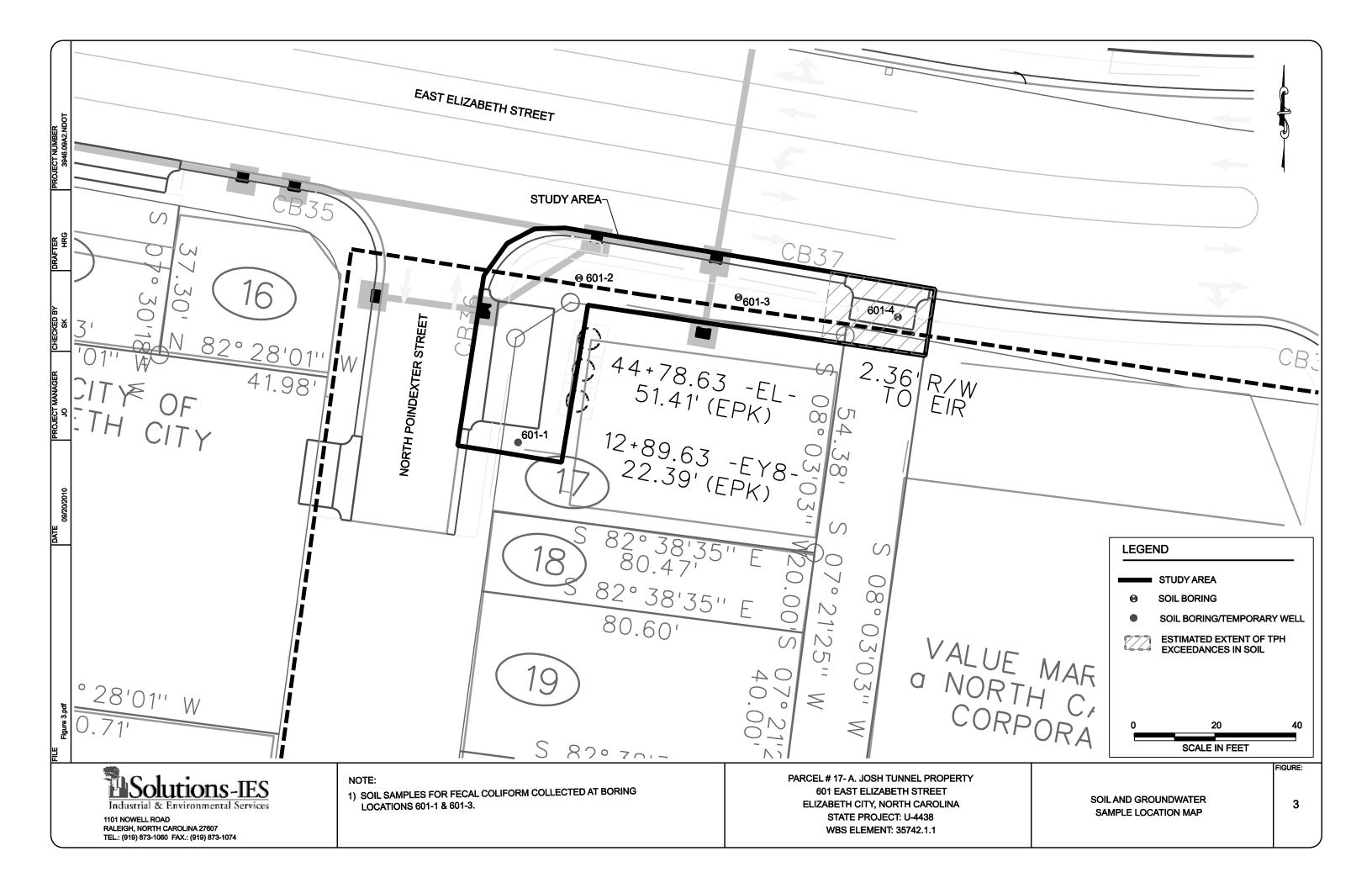
NA = Not analyzed/Not applicable

 $Shaded\ values\ exceed\ NC\ 2L\ Groundwater\ Quality\ Standards\ (January,\ 2010).$









APPENDIX A

PHOTOGRAPHS



Photograph 1 – View of Parcel #17, looking southeast from East Elizabeth Street.



Photograph 2 – View of Parcel #17, look west along the storefront.

APPENDIX B

GEOPHYSICAL REPORT

GEOPHYSICAL INVESTIGATION REPORT

EM61 & GPR SURVEYS

601 ELIZABETH STREET SITE Elizabeth City, North Carolina

August 18, 2010

Report prepared for:

Jody L. Overmyer, P.E.

Solutions-IES

1101 Newell Road

Raleigh, North Carolina 27607

Prepared by:

Mark Denil PG

Reviewed by:

Douglas Canavello, PG

PYRAMID ENVIRONMENTAL & ENGINEERING, P.C. P.O. Box 16265 GREENSBORO, NC 27416-0265 (336) 335-3174

Solutions-IES GEOPHYSICAL INVESTIGATION REPORT 601 ELIZABETH STREET SITE Elizabeth City, North Carolina

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1.0 INTRODUCTION

Pyramid Environmental conducted geophysical investigations for Solutions-IES across the proposed Right-of-Way (ROW) area of the 601 East Elizabeth Street site (Parcel 17) located at the intersection of East Elizabeth Street and North Poindexter Street in Elizabeth City, North Carolina. The property is owned by A. Josh Tunnell and consists of an occupied office building with a small asphalt-covered parking area along the western and northern portions of the property.

Conducted on July 7 and 8, 2010 the geophysical investigation was performed as part of the North Carolina Department of Transportation (NCDOT) preliminary site assessment project to determine if unknown, metallic underground storage tanks (UST's) were present beneath the area of interest at the 601 East Elizabeth Street site. Solutions-IES representative, Ms. Jody Overmyer, P.G. provided site maps that identified the geophysical survey area perimeter to Pyramid Environmental personnel. The survey area has a maximum length and width of 100 feet and 70 feet, respectively. Photographs of the geophysical equipment used in this investigation and the geophysical survey area at the 601 Elizabeth Street site are shown in **Figure 1**.

2.0 FIELD METHODOLOGY

Prior to conducting the geophysical investigation, a 10-foot by 10-foot survey grid was established across the geophysical survey area using measuring tapes and water-based marking paint. These grid marks were used as X-Y coordinates for location control when collecting the geophysical data and establishing base maps for the geophysical results.

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection surveys and ground penetrating radar (GPR) surveys. The EM survey was performed on July 7, 2010 using a Geonics EM61-MK1 metal detection instrument. According to the instrument specifications, the EM61 can detect a metal drum down to a maximum depth of approximately 8 feet. Smaller objects (1-foot or less in size) can be detected to a maximum depth of 4 to 5 feet. All of the EM61 data were digitally collected at approximately 0.8 foot intervals along northerly-southerly, parallel survey lines

spaced five feet apart. All of the data were downloaded to a computer and reviewed in the field and office using the Geonics DAT61W and Surfer for Windows Version 7.0 software programs.

GPR surveys were conducted on July 8, 2010 across a significant portion of the site using a GSSI SIR-2000 unit equipped with a 400 MHz antenna. Data were digitally collected in a continuous mode along X-axis and/or Y-axis survey lines, spaced 5.0 feet apart using a vertical scan of 512 samples, at a rate of 48 scans per second. A 70 MHz high pass filter and an 800 MHz low pass filter were used during data acquisition with the 400 MHz antenna. GPR data were collected down to a maximum depth of approximately 5 feet, based on an estimated two-way travel time of 8 nanoseconds per foot. All of the GPR data were downloaded to a field computer and reviewed in the field and office using Radprint software.

Locations of the EM61 metal detection survey lines and the GPR survey lines acquired across the geophysical survey area are shown as red dots and purple lines, respectively in **Figure 2**. Each red dot represents an EM61 data point.

Contour plots of the EM61 bottom coil and differential results are presented in **Figure 3**. The bottom coil results represent the most sensitive component of the EM61 instrument and detect metal objects regardless of size. The bottom coil response can be used to delineate metal conduits or utility lines, small, isolated metal objects, and areas containing insignificant metal debris. The differential results are obtained from the difference between the top and bottom coils of the EM61 instrument. The differential results focus on the larger metal objects such as drum and UST-size objects and ignore the smaller insignificant metal objects.

Preliminary contour plots of the EM61 bottom coil and EM61 differential results obtained from the survey area were emailed to Ms. Overmyer on July 19, 2010.

3.0 <u>DISCUSSION OF RESULTS</u>

The linear, high-amplitude EM61 metal detection anomalies (contours shaded in red) intersecting grid coordinates X=20 Y=50 and X=100 Y=94 are probably in response to buried utility lines that run along the edge of North Poindexter Street and East Elizabeth Street. GPR data suggest the linear, EM61 anomalies intersecting grid coordinates X=30 Y=55 and X=115 Y=70 are probably in response to buried, utility lines or conduits. GPR data suggest the EM61 differential anomalies intersecting grid coordinates X=60 Y=77, X=78 Y=77 and X=100 Y=77 are in response to the office building and concrete walkway.

The geophysical investigation suggests that the proposed ROW area at the 601 East Elizabeth Street site does not contain buried metallic UST.

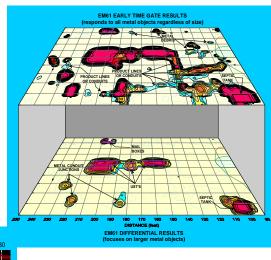
4.0 SUMMARY & CONCLUSIONS

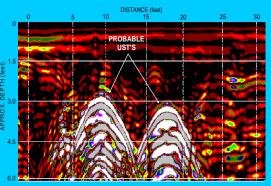
Our evaluation of the EM61 and GPR data collected across the proposed ROW area at the 601 East Elizabeth Street site (Parcel 17) located in Elizabeth City, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the surveyed portion of the site.
- The linear, high-amplitude EM61 metal detection anomalies (contours shaded in red) intersecting grid coordinates X=20 Y=50, X=30 Y=55, X=100 Y=94, and X=115 Y=70 are probably in response to buried utility lines or conduits.
- The geophysical investigation suggests that the proposed ROW area at the 601 East Elizabeth Street site does not contain buried metallic UST.

5.0 <u>LIMITATIONS</u>

EM61 and GPR surveys have been performed and this report prepared for Solutions-IES in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR are non-unique and may not represent actual subsurface conditions. The EM61 and GPR results do not conclusively determine that the proposed ROW area does not contain unknown, metallic USTs, but that none were detected.

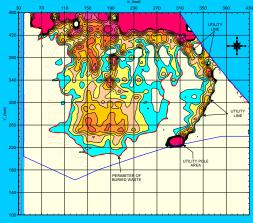


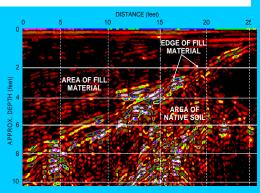


FIGURES

(on the following pages)

Figures shown on this page are for esthetic purposes only and are not related to the geophysical results discussed in this report.





or that as the aty) on 2010.

The photograph shows the Geonics EM61 metal detector that was used to conduct the metal detection survey across the 601 East Elizabeth Street site (A. Josh Tunnell property) on July 7, 2010.



The photographs show the SIR-2000 GPR system equipped with a 400 MHz antenna that were used to conduct the ground penetrating radar investigation at the 601 East Elizabeth Street site on July 8, 2010.

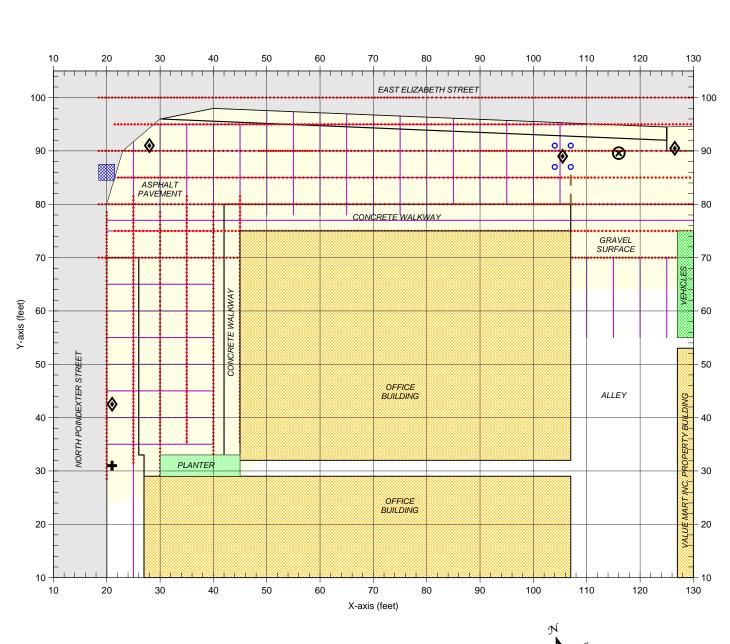


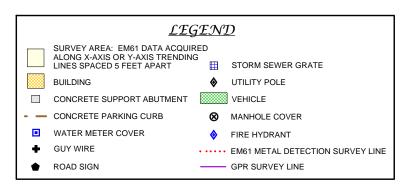
The photograph shows the 601 East Elizabeth Street site (A. Josh Tunnell property - Parcel 17) located at the intersection of East Elizabeth Street and North Poindexter Street in Elizabeth City, North Carolina. The photograph is viewed in a southeasterly direction.



CLIENT	SOLUTIONS-IES	08/16/10 MJD
SITE	601 EAST ELIZABETH STREET SITE	GH'KG GH'KG
CITY	ELIZABETH CITY NORTH CAROLINA	DMG
ше	GEOPHYSICAL RESULTS	2010-159 BB

GEOPHYSICAL EQUIPMENT & SITE PHOTOGRAPHS







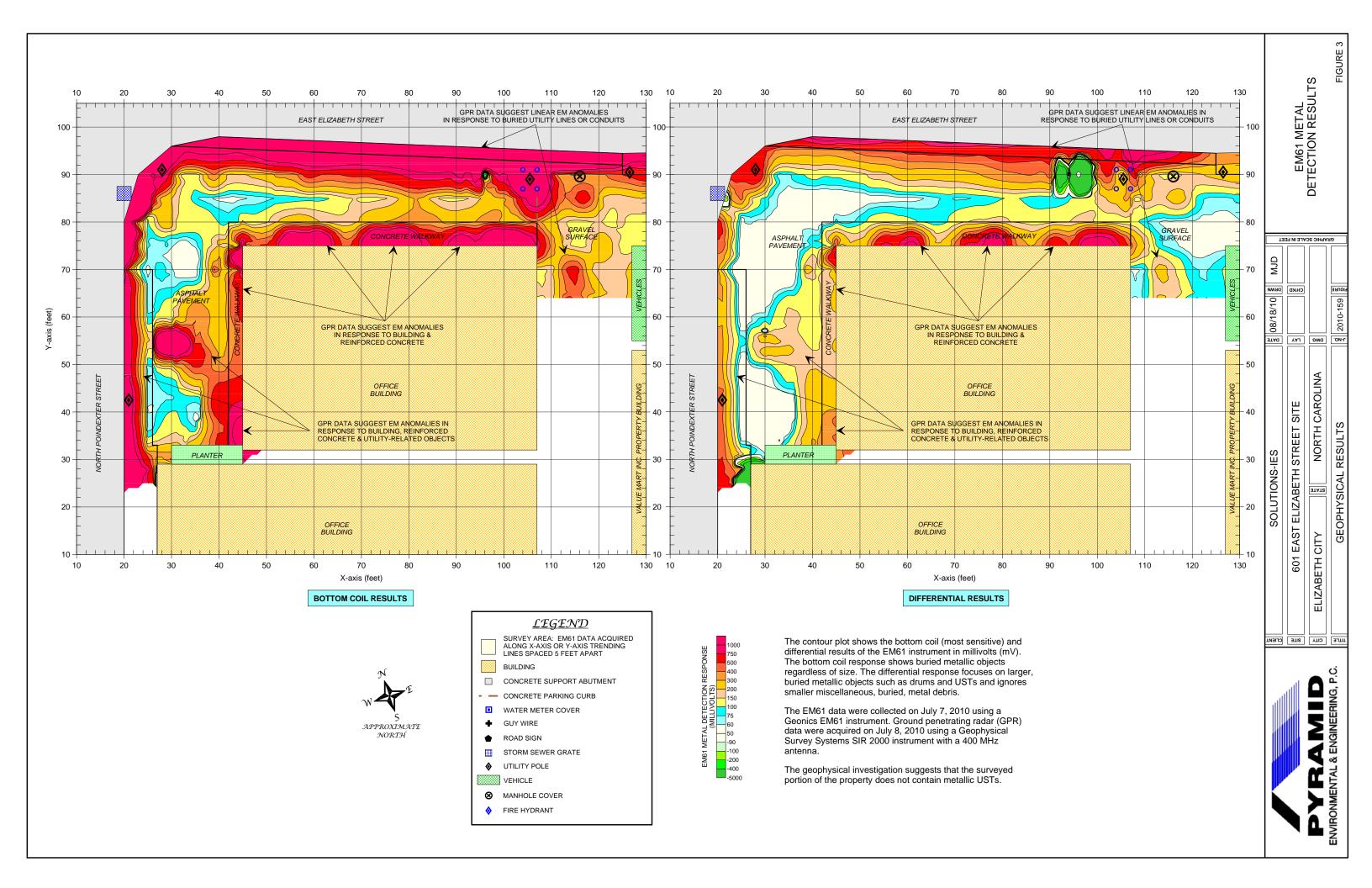
Note: The map shows the geophysical survey area at the 601 East Elizabeth Street site (Parcel 17). The red dots represent the EM61 metal detection survey lines that were acquired on July 7, 2010 using a Geonics EM61 metal detection instrument. Each dot represents an EM61 data point.

The solid purple lines represent the GPR survey lines. The GPR investigation was conducted on July 8, 2010 using a Geophysical Survey Systems SIR-2000 unit with a 400 MHz antenna.



I	CLIENT	SOLUTIONS-IES
l	SITE	601 EAST ELIZABETH STREET SITE
l	СЩ	ELIZABETH CITY
l	TITLE	GEOPHYSICAL RESULTS

GEOPHYSICAL SURVEY LINE LOCATIONS



APPENDIX C

GPS COORDINATES

APPENDIX C

Boring Locations GPS Coordinates

Parcel #17

601 East Elizabeth Street Elizabeth City, North Carolina

WBS Element: 35742.1.1; State Project: U-4438

Boring Identification	Latitude	Longitude
601-1	36.301235	76.219231
601-2	36.301346	76.219217
601-3	36.301333	76.219111
601-4	36.301292	76.218921

APPENDIX D

BORING LOGS

Page: 1 of 1

Log of Soil Boring: 601-1

Project Name: Elizabeth City PSAs

Client: NCDOT

Project Location: Elizabeth City

Site or Area: 601 E. Elizabeth Street

Drilling Method: Direct push Sample Method: Macrocore

Logged by: KD

Checked by:

State: NC

County: Pasquotank Date Started: 8/3/2010

Northing: 940079.16

Initial Water Level: ~ 3' bgs

Date & Time (i): 8/3/2010 0745

WBS #: 35742.1.1

Solutions-IES Project Number: 3946.10A3.NDOT

Easting: 2819374.09

City: Elizabeth City

Date Completed: 8/3/2010

Final Water Level: 2.7' bgs Date & Time (f): 8/4/10 0720

State Project #: U-4438

Depth		Lithology Sample Informat	ion			Laboi In	rator form	y Sample nation	Well Informatio
Depth Elevation	USCS Symbol	Description	Sample Interval	Recovery %	Blows / 0.5 FT	Field Screen	Sample Interval	Sample ID	Well Const.
0.00	3,000	Ground Surface							
	The state of the s	SP gray sandy fill				405		601-1-0-2	
2-1		SC gray sandy-clay, fill, moist		30		27.8		601-1-2-4	
1		End of Boring		_	_				
3-									
Field		h in feet n conducted with FID, results in parts	per million	ı (ppı	m).	_			
0-		Well Construction Details							

Well Construction Details

Drilling Contractor: Solutions-IES, Inc.

Size of Borehole: 3.75"

TOC Elevation: NA

Completion: Stick- up Total Depth: 7.5' bgs

Casing Diameter: 1"

Screen Interval: 7.5-2.5

Screen Material: PVC

Casing Material: SCH 40 PVC Slot Size: 0.01



1101 Nowell Road

Raleigh, North Carolina 27607 Tel.: 919.873.1060 Fax.: 919.813.1074

Log of Soil Boring: 601-2

Project Name: Elizabeth City PSAs

Client: NCDOT

Project Location: Elizabeth City

Site or Area: 601 E. Elizabeth Street

Drilling Method: Direct push Sample Method: Macrocore

Logged by: KD

Checked by:

State: NC

Date Started: 8/3/2010

Initial Water Level: ~ 3' bgs

Date & Time (i): 8/3/2010 0745

WBS #: 35742.1.1

Northing: 940129.71

County: Pasquotank

Solutions-IES Project Number: 3946.10A3.NDOT

Easting: 2819566.37

City: Elizabeth City

Date Completed: 8/3/2010

Page: 1 of 1

Final Water Level:

Date & Time (f):

State Project #: U-4438

De	epth		Lithology Sample Information	n			Labor In	Laboratory Sample Information	Well Informatio	
Deptn	Elevation	USCS Symbol	Description	Sample Interval	Recovery %	Blows / 0.5 FT	Field Screen	Sample Interval	Sample ID	Well Const.
0-	0.00		Ground Surface							
-			SC gray clayey-sand, fill, with asphalt pieces				83.8		601-2-0-2	
2			SC gray sandy-clay, fill, moist		30		212.7		601-2-2-4	
4 -		12/2/2/2/	End of Boring				_			
6-										
	Notes	: Denti	h in feet							
-			n conducted with FID, results in parts pe	er millior	ı (pp	m).				
8-										
			Well Construction Details				. and the			

Well Construction Details

Drilling Contractor: Solutions-IES, Inc.

Size of Borehole: 3.75"

TOC Elevation: NA

Completion: Total Depth: Casing Diameter:

Casing Material:

Screen Interval:

Screen Material:

Slot Size:

1101 Nowell Road

Raleigh, North Carolina 27607 Tel.: 919.873.1060 Fax.: 919.813.1074

Page: 1 of 1

Log of Soil Boring: 601-3

Project Name: Elizabeth City PSAs

Client: NCDOT

Project Location: Elizabeth City

Site or Area: 601 E. Elizabeth Street

Drilling Method: Direct push Sample Method: Macrocore

Logged by: KD

State: NC

Checked by:

County: Pasquotank Date Started: 8/3/2010

Northing: 940075.3

Initial Water Level: ~ 3' bgs

Date & Time (i): 8/3/2010 0745

WBS #: 35742.1.1

Solutions-IES Project Number: 3946.10A3.NDOT Easting: 2819405.45

City: Elizabeth City

Date Completed: 8/3/2010

Final Water Level:

Date & Time (f):

State Project #: U-4438

Depth		Lithology Sample Informat	tion			Labor In	ator form	Well Information	
Elevation	USCS Symbol	Description	Sample Interval	Recovery %	Blows / 0.5 FT	Field Screen	Sample Interval	Sample ID	Well Const.
0.00		Ground Surface							
		SW sand, fill, with asphalt pieces		30		113		601-3-0-2	
		SC gray clayey-sand, moist		30		187.9		601-3-2-4	
		Saturated							
-		End of Boring	11						
-									
5-									
]									
Notes	s: Deptl	n in feet							
Field	Screen	conducted with FID, results in parts	per millior	ı (pp	m).				
8		Well Construction Details							

Well Construction Details

Drilling Contractor: Solutions-IES, Inc.

Size of Borehole: 3.75"

TOC Elevation: NA

Completion: Total Depth: Casing Diameter:

Casing Material:

Screen Interval:

Screen Material:

Slot Size:

1101 Nowell Road

Raleigh, North Carolina 27607

Tel.: 919.873.1060 Fax.: 919.813.1074

Log of Soil Boring: 601-4

Project Name: Elizabeth City PSAs

Client: NCDOT

Project Location: Elizabeth City

Site or Area: 601 E. Elizabeth Street

Drilling Method: Direct push Sample Method: Macrocore

Logged by: KD

State: NC

Checked by:

Date Started: 8/3/2010

Initial Water Level: ~ 3' bgs

Date & Time (i): 8/3/2010 0745

WBS #: 35742.1.1

Northing: 940061.95

County: Pasquotank

Solutions-IES Project Number: 3946.10A3.NDOT

Easting: 2819461.84

City: Elizabeth City

Date Completed: 8/3/2010

Page: 1 of 1

Final Water Level:

Date & Time (f):

State Project #: U-4438

Depth		Lithology Sample Information		_	_			y Sample lation	Well Information
Elevation	USCS Symbol	Description	Sample Interval	Recovery %	Blows / 0.5 FT	Field Screen	Sample Interval	Sample ID	Well Const.
0.00		Ground Surface					_		
-		SW tan sand, fill, gravel				36.3		601-4-0-2	
2		GM dark gray clayey-silt, moist		30		0.0		601-4-2-4	
		End of Boring							
5-									
-									
-		n in feet conducted with FID, results in parts per	· millior	ı (ppi	m).				

Well Construction Details

Drilling Contractor: Solutions-IES, Inc.

Size of Borehole: 3.75"

Completion:

Total Depth:

TOC Elevation: NA

Casing Diameter:

Casing Material:

Screen Interval:

Screen Material:

Slot Size:

1101 Nowell Road

Raleigh, North Carolina 27607 Tel.: 919.873.1060 Fax.: 919.813.1074

APPENDIX E LABORATORY ANALYTICAL REPORT



NC Certification No. 402 SC Certification No. 99012 NC Drinking Water Cert No. 37735

Case Narrative

08/20/2010

Solutions IES (NCDOT Project) Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's - 601 E. Elizabeth St.

Project No.: WBS# 35742.1.1 Lab Submittal Date: 08/04/2010 Prism Work Order: 0080137

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

Please call if you have any questions relating to this analytical report.

Respectfully,

PRISM LABORATORIES, INC.

VP Laboratory Services

Reviewed By

Rossi a. In

Data Qualifiers Key Reference:

BRL Below Reporting Limit
MDL Method Detection Limit
RPD Relative Percent Difference

* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and

reporting limit indicated with a J.



Sample Receipt Summary

08/20/2010

Prism Work Order: 0080137

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
601-1-0-2	0080137-01	Solid	08/03/10	08/04/10
601-2-2-4	0080137-02	Solid	08/03/10	08/04/10
601-3-2-3	0080137-03	Solid	08/03/10	08/04/10
601-4-0-2	0080137-04	Solid	08/03/10	08/04/10

Samples received in good condition at 4.8 degrees C unless otherwise noted.







Project: NCDOT Elizabeth City PSA's

- 601 E. Elizabeth St.

Project No.: WBS# 35742.1.1

Sample Matrix: Solid

Client Sample ID: 601-1-0-2 Prism Sample ID: 0080137-01 Prism Work Order: 0080137 Time Collected: 08/03/10 10:20 Time Submitted: 08/04/10 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	20	mg/kg dry	7.8	1.3	1	*8015C	8/12/10 22:28	JMV	P0H0245
			Surrogate			Recov	/ery	Control	Limits
			o-Terphenyl			70) %	49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.1	0.66	50	*8015C	8/10/10 2:24	HPE	P0H0204
			Surrogate			Recov	/ery	Control	Limits
			a,a,a-Trifluo	rotoluene		77	7 %	55-129	
General Chemistry Parameters									
% Solids	89.8	% by Weight	0.100	0.100	1	*SM2540 G	8/9/10 14:00	JAB	P0H0208







Project: NCDOT Elizabeth City PSA's

- 601 E. Elizabeth St.

Project No.: WBS# 35742.1.1

Sample Matrix: Solid

Client Sample ID: 601-2-2-4 Prism Sample ID: 0080137-02 Prism Work Order: 0080137 Time Collected: 08/03/10 10:25 Time Submitted: 08/04/10 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	8.5	1.4	1	*8015C	8/12/10 19:2	9 JMV	P0H0245
			Surrogate			Recov	ery ery	Control	Limits
			o-Terphenyl			50	1%	49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.6	0.72	50	*8015C	8/10/10 2:57	' HPE	P0H0204
			Surrogate			Recov	ery	Control	Limits
			a,a,a-Trifluoi	rotoluene		72	2 %	55-129	
General Chemistry Parameters									
% Solids	81.7	% by Weight	0.100	0.100	1	*SM2540 G	8/9/10 14:00	JAB	P0H0208







Project: NCDOT Elizabeth City PSA's

- 601 E. Elizabeth St.

Project No.: WBS# 35742.1.1 Sample Matrix: Solid Client Sample ID: 601-3-2-3 Prism Sample ID: 0080137-03 Prism Work Order: 0080137 Time Collected: 08/03/10 10:30 Time Submitted: 08/04/10 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	8.9	1.4	1	*8015C	8/12/10 20:0	5 JMV	P0H0245
			Surrogate			Recov	very	Control	Limits
			o-Terphenyl			61	1 %	49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	7.6	0.99	50	*8015C	8/10/10 3:31	HPE	P0H0204
			Surrogate			Recov	very	Control	Limits
			a,a,a-Trifluoi	rotoluene		94	1 %	55-129	
General Chemistry Parameters									
% Solids	78.1	% by Weight	0.100	0.100	1	*SM2540 G	8/9/10 14:00	JAB	P0H0208







Project: NCDOT Elizabeth City PSA's

- 601 E. Elizabeth St.

Project No.: WBS# 35742.1.1

Sample Matrix: Solid

Client Sample ID: 601-4-0-2 Prism Sample ID: 0080137-04 Prism Work Order: 0080137 Time Collected: 08/03/10 10:32 Time Submitted: 08/04/10 16:10

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	43	mg/kg dry	7.7	1.2	1	*8015C	8/12/10 21:52	JMV	P0H0245
			Surrogate			Recov	/ery	Control	Limits
			o-Terphenyl			59	9 %	49-124	
Gasoline Range Organics by GC/F	ID								
Gasoline Range Organics	BRL	mg/kg dry	5.9	0.77	50	*8015C	8/10/10 4:05	HPE	P0H0204
			Surrogate			Recov	/ery	Control	Limits
			a,a,a-Trifluo	rotoluene		85	5 %	55-129	
General Chemistry Parameters									
% Solids	91.2	% by Weight	0.100	0.100	1	*SM2540 G	8/9/10 14:00	JAB	P0H0208



Project: NCDOT Elizabeth City PSA's -

601 E. Elizabeth St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080137

Time Submitted: 8/4/10 4:10:00PM

Gasoline Range Organics by GC/FID - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0H0204 - 5035										
Blank (P0H0204-BLK1)			F	Prepared	& Analyze	d: 08/09/1	0			
Gasoline Range Organics	BRL	5.0	mg/kg wet							
Surrogate: a,a,a-Trifluorotoluene	4.90		mg/kg wet	5.00		98	55-129			
LCS (P0H0204-BS1)			F	Prepared	& Analyze	d: 08/09/1	0			
Gasoline Range Organics	44.6	5.0	mg/kg wet	50.0		89	67-116			
Surrogate: a,a,a-Trifluorotoluene	5.50		mg/kg wet	5.00		110	55-129			
LCS Dup (P0H0204-BSD1)			F	Prepared	& Analyze	d: 08/09/1	0			
Gasoline Range Organics	46.1	5.0	mg/kg wet	50.0		92	67-116	3	200	
Surrogate: a,a,a-Trifluorotoluene	5.55		mg/kg wet	5.00		111	55-129			



Project: NCDOT Elizabeth City PSA's -

601 E. Elizabeth St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080137

Time Submitted: 8/4/10 4:10:00PM

Diesel Range Organics by GC/FID - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0H0245 - 3545A										
Blank (P0H0245-BLK1)			F	Prepared	: 08/10/10	Analyzed	: 08/12/10			
Diesel Range Organics	BRL	7.0	mg/kg wet							
Surrogate: o-Terphenyl	1.23		mg/kg wet	1.60		77	49-124			
LCS (P0H0245-BS1)			F	Prepared	08/10/10	Analyzed	: 08/12/10			
Diesel Range Organics	62.0	7.0	mg/kg wet	80.0		78	55-109			
Surrogate: o-Terphenyl	1.76		mg/kg wet	1.60		110	49-124			
LCS Dup (P0H0245-BSD1)			F	Prepared	: 08/10/10	Analyzed	: 08/12/10			
Diesel Range Organics	65.7	7.0	mg/kg wet	80.0		82	55-109	6	200	
Surrogate: o-Terphenyl	1.76		mg/kg wet	1.60		110	49-124			



Project: NCDOT Elizabeth City PSA's -

601 E. Elizabeth St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080137

Time Submitted: 8/4/10 4:10:00PM

General Chemistry Parameters - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch P0H0208 - NO PREP

Duplicate (P0H0208-DUP1)	Sourc	ce: 0080137-04	Prepared & Analyzed: 08/09/10			
% Solids	90.9	0.100 % by Weigh	nt 91.2	0.3	20	

Sample Extraction Data

Prep Method: 3545A

Lab Number	Batch	Initial	Final	Date
0080137-01	P0H0245	25.11 g	1 mL	08/10/10
0080137-02	P0H0245	25.19 g	1 mL	08/10/10
0080137-03	P0H0245	25.04 g	1 mL	08/10/10
0080137-04	P0H0245	25.04 g	1 mL	08/10/10

Prep Method: 5035

Lab Number	Batch	Initial	Final	Date	
0080137-01	P0H0204	5.5 g	5 mL	08/09/10	
0080137-02	P0H0204	5.49 g	5 mL	08/09/10	
0080137-03	P0H0204	4.21 g	5 mL	08/09/10	
0080137-04	P0H0204	4.61 g	5 mL	08/09/10	

NO PREP

Lab Number	Batch	Initial	Final	Date
0080137-01	P0H0208	30 g	30 mL	08/09/10
0080137-02	P0H0208	30 g	30 mL	08/09/10
0080137-03	P0H0208	30 g	30 mL	08/09/10
0080137-04	P0H0208	30 g	30 mL	08/09/10



PRIS		III-Service Ana vironmental S	olutions	PAGEOF_	อบอา	E#TO ENSU	STODY JRE PROPER BILLI	ING:		Sa	imples INT	ACT upo	LAB US	1/4	YES/ N	O N/A
449 Springbrook Road • I Phone: 704/529-6364 • I Slient Company Name Leport To/Contact Nat Leporting Address:	Fax: 704/525-0409 :: <u>Solution</u> me: <u>Jodu</u> Ol Nowe)	15-1=5 overmye (foad	28224-0543	Short Hold Ar	ıalysis: CH any p d/or QC i	(Yes) (No roject spec Requirement	; cific reporting (0	roject:	(Yes) (N	No) Pi V) Ri V) Ci	eceived ON ROPER PR eceived WIJ JSTGDY S DLATILES I ROPER CO	ESERVA THIN HC EALS IN rec'd W/	ATIVES IND PLDING TIN PTACT? OUT HEAD	cated? IES? SPACE?		
hone: <u>¶¶-873-106</u> mail (Yes) (No) Email DD Type: PDFEx ite Location Name: _L ite Location Physical	Dagh NC Dagh NC Dagh NC Dagh NC Address So Col Other NCDOT Fligh Address: Col	(No): overymyn aboth city	<u>ε 301αμ</u> ακ ΓζS. — <i>Ό</i> Μ	Purchase Orc Requested Due "Working Days' Samples receive Turnaround time (SEE REVE	Date 1 1 1 6- 1 15:1 1 is based created after 15:1 1 is based created after 15:1	Day 2 Day 9 Days 5 Sta 00 will be produced business de RMS & CONDI	ence \(\frac{300}{300}\) ys \(\gamma\) 3 Days \(\gamma\) 4 andard 10 days \(\gamma\) cessed next busine ays, excluding weel TIONS REGARDING ES, INC. TO CLIENT)	Days 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	i Days Must Be ved holidays.	Certifi	cation: Chlorina	NELA SC ated: Y	CU OTHE /ES I	SACE_ ER NO \	ING PERS FL N/A NO	SONNEL NC
CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	*TYPE SEE BELOW	E CONTA	SIZE	PRESERVA- TIVES	TOH	20 De CA	NALYSES RE	EQUESTED			REMARK	s	PRISM LAB ID NO.
601-1-0-2	8/3/10	1020	5	VOA &	45/24			\times					402	, Zoz	<u>. </u>	87
601-2-2-4	1 1	1025	Ś	VOA G	4		, , , ,	X								0Z
601-3-2-3		1030	5	VOA, G	4			> <								03
601-4-0-2	8/3/10	1032	5	VOA, 6	4			\times								OY
																2 00 54
Sampler's Signature	allen	<u> </u>	Sampled B	By (Print Name)	Kaf	hyn	Doll	Affiliati		lutions	-1ES	-	PRESS	DOWN		- 3 COPIE
Upon relinquishing, this submitted in writing to	s Chain of Cust the Prism Proje	ody is your aut ect Manager. Ti	iere will be c	narges for any	cnanges	after analyse	s as requested a ses have been in	illanzeu.	Date	Military	Hours .	Δddition] nai Comm	ents:		USE ONLY
Relinquished By: (Signature) Relinquished By: (Signature)	Kyn Dal	01 br	Reco	eived By: (Sig) fatur eived By: (Sign) fur	ex L	assi -	le		& 503 Date 9803	10 109		alir Da	guist) m	Site Arrival T Site Departur Field Tech Fr	re Time:
Relinquished By: (Signature)	ALL STANDLE COOLS	EDS SHOULD BE TA	PED SHUT WITH	LCUSTODY SEALS	grn FOR TRAN	SPORTATION T	O THE LABORATORY	r.	Date COC Group		29 8	7-4-1	0 161	D	Mileage:	
Method of Shipment: NOTE: A SAMPLE	ALL SAMPLE COOLE ES ARE NOT ACCEP	RS SHOULD BE TA TED AND VERIFIED	AGAINST COC	UNTIL RECEIVED	AT THE LAB	ORATORY.	O THE EADORATOR		300 0.00	- · · · · ·		1000	Si110/	/ -		

SEE REVERSE FOR TERMS & CONDITIONS Page 10 of 10

8/11/m 11/10

0080137

OTHER:

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LANDFILL

ONC OSC ONC OSC ONC OSC

| <u>-</u> l 🗆 **-**Q *CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

SOLID WASTE:

ONC OSC

RCRA:

CERCLA

Prism Field Service

GROUNDWATER:

Other

□NC □SC

DRINKING WATER:

☐ Fed Ex ☐ UPS ☐ Hand-delivered

UST:

DNC DSC DNC DSC DNC DSC

NPDES:



NC Certification No. 402 SC Certification No. 99012 NC Drinking Water Cert No. 37735 **Case Narrative**

08/30/2010

Solutions IES (NCDOT Project) Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's - 222 Water St.

Project No.: WBS# 35742.1.1 Lab Submittal Date: 08/05/2010 Prism Work Order: 0080167

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

Narrative Notes:

This is a Revised Report and supercedes the original laboratory report dated 8/24/10. Revised Client Sample ID to 507-4-1-4 on Prism Sample ID 0080167-07.

Please call if you have any questions relating to this analytical report.

Respectfully,

PRISM LABORATORIES, INC.

VP Laboratory Services

Reviewed By

Korti a.

Data Qualifiers Key Reference:

Α	Compound recovered outside established QC limits in the LCS DUP.	Acceptable recovery was obtained in the LCS.
	No further action was taken.	

Aa Sample analyzed out of hold.

D RPD value outside of the control limits.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

MI Matrix spike outside of the control limits. Matrix interference suspected.

P Recovery outside of the QC limits due to inconsistency during extraction and chromatographic performance of this compound.

SR Surrogate recovery outside the QC limits.

BRL Below Reporting Limit
MDL Method Detection Limit
RPD Relative Percent Difference

* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.



Sample Receipt Summary

08/30/2010

Prism Work Order: 0080167

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
222-1-2-4	0080167-01	Solid	08/04/10	08/05/10
222-2-2-4	0080167-02	Solid	08/04/10	08/05/10
222-3-0-2	0080167-03	Solid	08/04/10	08/05/10
222-3	0080167-04	Water	08/04/10	08/05/10
601-1	0080167-05	Water	08/04/10	08/05/10
229-2	0080167-06	Water	08/04/10	08/05/10
507-4-1-4	0080167-07	Solid	08/04/10	08/05/10

Samples received in good condition at 3.1 degrees C unless otherwise noted.







Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1

Sample Matrix: Solid

Client Sample ID: 222-1-2-4 Prism Sample ID: 0080167-01 Prism Work Order: 0080167 Time Collected: 08/04/10 08:20 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	22	mg/kg dry	8.8	1.4	1	*8015C	8/16/10 17:55	JMV	P0H0282
			Surrogate			Reco	very	Control	Limits
			o-Terphenyl			8	1 %	49-124	
Gasoline Range Organics by GC/F	D								
Gasoline Range Organics	19	mg/kg dry	4.9	0.64	50	*8015C	8/10/10 17:25	HPE	P0H0224
			Surrogate			Reco	very	Control	Limits
			a,a,a-Trifluo	rotoluene		94	4 %	55-129	
General Chemistry Parameters									
% Solids	78.9	% by Weight	0.100	0.100	1	*SM2540 G	8/11/10 14:45	JAB	P0H0272



08/30/2010



Solutions IES (NCDOT Project) Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1

Sample Matrix: Solid

Client Sample ID: 222-2-2-4 Prism Sample ID: 0080167-02 Prism Work Order: 0080167 Time Collected: 08/04/10 08:30 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	9.2	1.5	1	*8015C	8/13/10 18:15	5 JMV	P0H0282
			Surrogate			Recov	very	Control	Limits
			o-Terphenyl			98	3 %	49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	6.3	0.82	50	*8015C	8/10/10 17:59) HPE	P0H0224
			Surrogate			Recov	very	Control	Limits
			a,a,a-Trifluo	rotoluene		94	1 %	55-129	
General Chemistry Parameters									
% Solids	75.9	% by Weight	0.100	0.100	1	*SM2540 G	8/11/10 14:45	jab	P0H0272







Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1

Sample Matrix: Solid

Client Sample ID: 222-3-0-2 Prism Sample ID: 0080167-03 Prism Work Order: 0080167 Time Collected: 08/04/10 08:35 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	9.1	1.5	1	*8015C	8/13/10 18:50) JMV	P0H0282
			Surrogate			Reco	very	Control	Limits
			o-Terphenyl			10	2 %	49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	7.1	0.92	50	*8015C	8/10/10 18:33	3 HPE	P0H0224
			Surrogate			Reco	very	Control	Limits
			a,a,a-Trifluo	rotoluene		93	3 %	55-129	
General Chemistry Parameters									
% Solids	76.7	% by Weight	0.100	0.100	1	*SM2540 G	8/11/10 14:45	jab	P0H0272







Raleigh, NC 27607

Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 222-3 Prism Sample ID: 0080167-04 Prism Work Order: 0080167 Time Collected: 08/04/10 09:00 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis A Date/Time	nalyst	Batch ID
Semivolatile Organic Compour	nds by GC/MS								
1,2,4-Trichlorobenzene	BRL	ug/L	10	2.2	1	8270D	8/12/10 23:50	CGP	P0H0259
1,2-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	8/12/10 23:50	CGP	P0H0259
1,3-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	8/12/10 23:50	CGP	P0H0259
1,4-Dichlorobenzene	BRL	ug/L	10	2.0	1	8270D	8/12/10 23:50	CGP	P0H0259
2,4,5-Trichlorophenol	BRL	ug/L	10	2.5	1	8270D	8/12/10 23:50	CGP	P0H0259
2,4,6-Trichlorophenol	BRL	ug/L	10	2.3	1	8270D	8/12/10 23:50	CGP	P0H0259
2,4-Dichlorophenol	BRL	ug/L	10	2.4	1	8270D	8/12/10 23:50	CGP	P0H0259
2,4-Dimethylphenol	BRL	ug/L	10	2.4	1	8270D	8/12/10 23:50	CGP	P0H0259
2,4-Dinitrophenol	BRL	ug/L	10	2.4	1	8270D	8/12/10 23:50	CGP	P0H0259
2,4-Dinitrotoluene	BRL	ug/L	10	0.95	1	8270D	8/12/10 23:50	CGP	P0H0259
2,6-Dinitrotoluene	BRL	ug/L	10	1.6	1	8270D	8/12/10 23:50	CGP	P0H0259
2-Chloronaphthalene	BRL	ug/L	10	2.3	1	8270D	8/12/10 23:50	CGP	P0H0259
2-Chlorophenol	BRL	ug/L	10	2.1	1	8270D	8/12/10 23:50	CGP	P0H0259
2-Methylnaphthalene	BRL	ug/L	10	2.6	1	8270D	8/12/10 23:50	CGP	P0H0259
2-Methylphenol	BRL	ug/L	10	2.4	1	8270D	8/12/10 23:50	CGP	P0H0259
2-Nitroaniline	BRL	ug/L	10	1.9	1	8270D	8/12/10 23:50	CGP	P0H0259
2-Nitrophenol	BRL	ug/L	10	2.5	1	8270D	8/12/10 23:50	CGP	P0H0259
3,3'-Dichlorobenzidine	BRL	ug/L	10	0.96	1	8270D	8/12/10 23:50	CGP	P0H0259
3/4-Methylphenol	BRL	ug/L	10	2.4	1	8270D	8/12/10 23:50	CGP	P0H0259
3-Nitroaniline	BRL	ug/L	10	1.3	1	8270D	8/12/10 23:50	CGP	P0H0259
4,6-Dinitro-2-methylphenol	BRL	ug/L	10	2.7	1	8270D	8/12/10 23:50	CGP	P0H0259
4-Bromophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	8/12/10 23:50	CGP	P0H0259
4-Chloro-3-methylphenol	BRL	ug/L	10	2.3	1	8270D	8/12/10 23:50	CGP	P0H0259
4-Chloroaniline	BRL	ug/L	10	2.5	1	8270D	8/12/10 23:50	CGP	P0H0259
4-Chlorophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	8/12/10 23:50	CGP	P0H0259
4-Nitroaniline	BRL	ug/L	10	0.91	1	8270D	8/12/10 23:50	CGP	P0H0259
4-Nitrophenol	BRL	ug/L	50	2.6	1	8270D	8/12/10 23:50	CGP	P0H0259
Acenaphthene	BRL	ug/L	10	2.1	1	8270D	8/12/10 23:50	CGP	P0H0259
Acenaphthylene	BRL	ug/L	10	2.2	1	8270D	8/12/10 23:50	CGP	P0H0259
Aniline	BRL	ug/L	10	2.2	1	8270D	8/12/10 23:50	CGP	P0H0259
Anthracene	BRL	ug/L	10	1.2	1	8270D	8/12/10 23:50	CGP	P0H0259
Azobenzene	BRL	ug/L	10	1.8	1	8270D	8/12/10 23:50	CGP	P0H0259
Benzo(a)anthracene	BRL	ug/L	10	0.95	1	8270D	8/12/10 23:50	CGP	P0H0259
Benzo(a)pyrene	BRL	ug/L	10	1.1	1	8270D	8/12/10 23:50	CGP	P0H0259
Benzo(b)fluoranthene	BRL	ug/L	10	1.4	1	8270D	8/12/10 23:50	CGP	P0H0259
Benzo(g,h,i)perylene	BRL	ug/L	10	2.1	1	8270D	8/12/10 23:50	CGP	P0H0259
Benzo(k)fluoranthene	BRL	ug/L	10	1.1	1	8270D	8/12/10 23:50	CGP	P0H0259
Benzoic Acid	BRL	ug/L	100	50	1	8270D	8/12/10 23:50	CGP	P0H0259
Benzyl alcohol	BRL	ug/L	10	2.1	1	8270D	8/12/10 23:50	CGP	P0H0259
bis(2-Chloroethoxy)methane	BRL	ug/L	10	2.2	1	8270D	8/12/10 23:50	CGP	P0H0259
Bis(2-Chloroethyl)ether	BRL	ug/L	10	1.9	1	8270D	8/12/10 23:50	CGP	P0H0259
Bis(2-chloroisopropyl)ether	BRL	ug/L	10	2.3	1	8270D	8/12/10 23:50	CGP	P0H0259



08/30/2010



Solutions IES (NCDOT Project) Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 222-3 Prism Sample ID: 0080167-04 Prism Work Order: 0080167 Time Collected: 08/04/10 09:00 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis / Date/Time	Analyst	Batch ID
Bis(2-Ethylhexyl)phthalate	BRL	ug/L	10	1.8	1	8270D	8/12/10 23:50	CGP	P0H0259
Butyl benzyl phthalate	BRL	ug/L	10	1.5	1	8270D	8/12/10 23:50	CGP	P0H0259
Chrysene	BRL	ug/L	10	1.2	1	8270D	8/12/10 23:50	CGP	P0H0259
Dibenzo(a,h)anthracene	BRL	ug/L	10	1.8	1	8270D	8/12/10 23:50	CGP	P0H0259
Dibenzofuran	BRL	ug/L	10	2.2	1	8270D	8/12/10 23:50	CGP	P0H0259
Diethyl phthalate	BRL	ug/L	10	1.4	1	8270D	8/12/10 23:50	CGP	P0H0259
Dimethyl phthalate	BRL	ug/L	10	1.6	1	8270D	8/12/10 23:50	CGP	P0H0259
Di-n-butyl phthalate	BRL	ug/L	10	1.8	1	8270D	8/12/10 23:50	CGP	P0H0259
Di-n-octyl phthalate	BRL	ug/L	10	1.9	1	8270D	8/12/10 23:50	CGP	P0H0259
Fluoranthene	BRL	ug/L	10	0.94	1	8270D	8/12/10 23:50	CGP	P0H0259
Fluorene	BRL	ug/L	10	1.8	1	8270D	8/12/10 23:50	CGP	P0H0259
Hexachlorobenzene	BRL	ug/L	10	1.4	1	8270D	8/12/10 23:50	CGP	P0H0259
Hexachlorobutadiene	BRL	ug/L	10	2.3	1	8270D	8/12/10 23:50	CGP	P0H0259
Hexachlorocyclopentadiene	BRL	ug/L	10	1.8	1	8270D	8/12/10 23:50	CGP	P0H0259
Hexachloroethane	BRL	ug/L	10	1.9	1	8270D	8/12/10 23:50	CGP	P0H0259
Indeno(1,2,3-cd)pyrene	BRL	ug/L	10	1.6	1	8270D	8/12/10 23:50	CGP	P0H0259
Isophorone	BRL	ug/L	10	2.4	1	8270D	8/12/10 23:50	CGP	P0H0259
Naphthalene	BRL	ug/L	10	2.3	1	8270D	8/12/10 23:50	CGP	P0H0259
Nitrobenzene	BRL	ug/L	10	2.0	1	8270D	8/12/10 23:50	CGP	P0H0259
N-Nitroso-di-n-propylamine	BRL	ug/L	10	2.3	1	8270D	8/12/10 23:50	CGP	P0H0259
N-Nitrosodiphenylamine	BRL	ug/L	10	1.6	1	8270D	8/12/10 23:50	CGP	P0H0259
Pentachlorophenol	BRL	ug/L	10	1.6	1	8270D	8/12/10 23:50	CGP	P0H0259
Phenanthrene	BRL	ug/L	10	1.2	1	8270D	8/12/10 23:50	CGP	P0H0259
Phenol	BRL	ug/L	10	2.2	1	8270D	8/12/10 23:50	CGP	P0H0259
Pyrene	BRL	ug/L	10	1.4	1	8270D	8/12/10 23:50	CGP	P0H0259
			Surrogate			Recov	/ery	Control I	imits
			2,4,6-Tribror	mophenol		65	5 %	26-139	
			2-Fluorobiph	nenyl		57	7 %	41-112	
			2-Fluorophe	nol		24	1 %	10-48	
			Nitrobenzen	e-d5		53	3 %	34-102	
			Phenol-d5			12	2 %	10-34	
			Terphenyl-d	14		76	5 %	31-165	
Volatile Organic Compounds by G	C/MS								
1,1,1,2-Tetrachloroethane	BRL	ug/L	1.0	0.15	1	8260B	8/11/10 23:31	KLA	P0H0263
1,1,1-Trichloroethane	BRL	ug/L	1.0	0.063	1	8260B	8/11/10 23:31	KLA	P0H0263
1,1,2,2-Tetrachloroethane	BRL	ug/L	1.0	0.071	1	8260B	8/11/10 23:31	KLA	P0H0263
1,1,2-Trichloroethane	BRL	ug/L	1.0	0.17	1	8260B	8/11/10 23:31	KLA	P0H0263
1,1-Dichloroethane	BRL	ug/L	1.0	0.096	1	8260B	8/11/10 23:31	KLA	P0H0263
1,1-Dichloroethylene	BRL	ug/L	1.0	0.078	1	8260B	8/11/10 23:31	KLA	P0H0263
1,1-Dichloropropylene	BRL	ug/L	1.0	0.061	1	8260B	8/11/10 23:31	KLA	P0H0263
1,2,3-Trichlorobenzene	BRL	ug/L	2.0	0.20	1	8260B	8/11/10 23:31	KLA	P0H0263
1,2,3-Trichloropropane	BRL	ug/L	1.0	0.081	1	8260B	8/11/10 23:31	KLA	P0H0263
1,2,4-Trichlorobenzene	BRL	ug/L	1.0	0.10	1	8260B	8/11/10 23:31	KLA	P0H0263







Solutions IES (NCDOT Project)

Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 222-3 Prism Sample ID: 0080167-04 Prism Work Order: 0080167 Time Collected: 08/04/10 09:00 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis A Date/Time	nalyst	Batch ID
1,2,4-Trimethylbenzene	BRL	ug/L	1.0	0.048	1	8260B	8/11/10 23:31	KLA	P0H0263
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	8260B	8/11/10 23:31	KLA	P0H0263
1,2-Dibromoethane	BRL	ug/L	1.0	0.14	1	8260B	8/11/10 23:31	KLA	P0H0263
1,2-Dichlorobenzene	BRL	ug/L	1.0	0.076	1	8260B	8/11/10 23:31	KLA	P0H0263
1,2-Dichloroethane	BRL	ug/L	1.0	0.14	1	8260B	8/11/10 23:31	KLA	P0H0263
1,2-Dichloropropane	BRL	ug/L	1.0	0.13	1	8260B	8/11/10 23:31	KLA	P0H0263
1,3,5-Trimethylbenzene	BRL	ug/L	1.0	0.057	1	8260B	8/11/10 23:31	KLA	P0H0263
1,3-Dichlorobenzene	BRL	ug/L	1.0	0.074	1	8260B	8/11/10 23:31	KLA	P0H0263
1,3-Dichloropropane	BRL	ug/L	1.0	0.11	1	8260B	8/11/10 23:31	KLA	P0H0263
1,4-Dichlorobenzene	BRL	ug/L	1.0	0.068	1	8260B	8/11/10 23:31	KLA	P0H0263
2,2-Dichloropropane	BRL	ug/L	2.0	0.11	1	8260B	8/11/10 23:31	KLA	P0H0263
2-Chloroethyl Vinyl Ether	BRL	ug/L	2.0	0.22	1	8260B	8/11/10 23:31	KLA	P0H0263
2-Chlorotoluene	BRL	ug/L	1.0	0.038	1	8260B	8/11/10 23:31	KLA	P0H0263
4-Chlorotoluene	BRL	ug/L	1.0	0.053	1	8260B	8/11/10 23:31	KLA	P0H0263
4-Isopropyltoluene	BRL	ug/L	1.0	0.065	1	8260B	8/11/10 23:31	KLA	P0H0263
Acetone	BRL	ug/L	10	0.62	1	8260B	8/11/10 23:31	KLA	P0H0263
Acrolein	BRL	ug/L	100	1.1	1	8260B	8/11/10 23:31	KLA	P0H0263
Acrylonitrile	BRL	ug/L	100	0.86	1	8260B	8/11/10 23:31	KLA	P0H0263
Benzene	BRL	ug/L	1.0	0.072	1	8260B	8/11/10 23:31	KLA	P0H0263
Bromobenzene	BRL	ug/L	1.0	0.064	1	8260B	8/11/10 23:31	KLA	P0H0263
Bromochloromethane	BRL	ug/L	1.0	0.13	1	8260B	8/11/10 23:31	KLA	P0H0263
Bromodichloromethane	BRL	ug/L	1.0	0.062	1	8260B	8/11/10 23:31	KLA	P0H0263
Bromoform	BRL	ug/L	1.0	0.27	1	8260B	8/11/10 23:31	KLA	P0H0263
Bromomethane	BRL	ug/L	3.0	0.47	1	8260B	8/11/10 23:31	KLA	P0H0263
Carbon disulfide	BRL	ug/L	5.0	1.4	1	8260B	8/11/10 23:31	KLA	P0H0263
Carbon Tetrachloride	BRL	ug/L	2.0	0.12	1	8260B	8/11/10 23:31	KLA	P0H0263
Chlorobenzene	BRL	ug/L	1.0	0.061	1	8260B	8/11/10 23:31	KLA	P0H0263
Chloroethane	BRL	ug/L	5.0	0.001	1	8260B	8/11/10 23:31	KLA	P0H0263
Chloroform	BRL	ug/L	1.0	0.089	1	8260B	8/11/10 23:31	KLA	P0H0263
Chloromethane	BRL	ug/L	2.0	0.009	1	8260B	8/11/10 23:31	KLA	P0H0263
cis-1,2-Dichloroethylene	BRL	ug/L	1.0	0.076	1	8260B	8/11/10 23:31	KLA	P0H0263
cis-1,3-Dichloropropylene	BRL	ug/L	1.0	0.076	1	8260B	8/11/10 23:31	KLA	P0H0263
Dibromochloromethane	BRL	ug/L	1.0	0.10	1	8260B		KLA	P0H0263
Dibromomethane	BRL	ug/L	1.0	0.30	1	8260B	8/11/10 23:31 8/11/10 23:31		P0H0263
Dichlorodifluoromethane	BRL	ug/L	2.0		1	8260B		KLA	P0H0263
Ethylbenzene	BRL	ug/L ug/L	1.0	0.11 0.067	1	8260B	8/11/10 23:31 8/11/10 23:31	KLA KLA	P0H0263
Etriyiberizerie Hexachlorobutadiene	BRL	ug/L ug/L	2.0	0.067	1	8260B 8260B	8/11/10 23:31		P0H0263
Isopropyl Ether	BRL	ug/L ug/L	1.0	0.043	1	8260B	8/11/10 23:31	KLA	P0H0263
Isopropylbenzene (Cumene)	BRL							KLA	P0H0263
	BRL	ug/L	1.0	0.072	1	8260B	8/11/10 23:31	KLA	P0H0263
m,p-Xylenes		ug/L	2.0	0.081	1	8260B	8/11/10 23:31	KLA	P0H0263
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	5.0	0.19	1	8260B	8/11/10 23:31	KLA	P0H0263
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.90	1	8260B	8/11/10 23:31	KLA	
Methyl Isobutyl Ketone	BRL	ug/L	5.0	0.12	1	8260B	8/11/10 23:31	KLA	P0H0263







Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 222-3 Prism Sample ID: 0080167-04 Prism Work Order: 0080167 Time Collected: 08/04/10 09:00 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis A Date/Time	Analyst	Batch ID
Methylene Chloride	BRL	ug/L	2.0	0.44	1	8260B	8/11/10 23:31	KLA	P0H0263
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.070	1	8260B	8/11/10 23:31	KLA	P0H0263
Naphthalene	BRL	ug/L	1.0	0.098	1	8260B	8/11/10 23:31	KLA	P0H0263
n-Butylbenzene	BRL	ug/L	1.0	0.11	1	8260B	8/11/10 23:31	KLA	P0H0263
n-Propylbenzene	BRL	ug/L	1.0	0.060	1	8260B	8/11/10 23:31	KLA	P0H0263
o-Xylene	BRL	ug/L	1.0	0.046	1	8260B	8/11/10 23:31	KLA	P0H0263
sec-Butylbenzene	BRL	ug/L	1.0	0.087	1	8260B	8/11/10 23:31	KLA	P0H0263
Styrene	BRL	ug/L	1.0	0.047	1	8260B	8/11/10 23:31	KLA	P0H0263
tert-Butylbenzene	BRL	ug/L	1.0	0.080	1	8260B	8/11/10 23:31	KLA	P0H0263
Tetrachloroethylene	BRL	ug/L	1.0	0.069	1	8260B	8/11/10 23:31	KLA	P0H0263
Toluene	BRL	ug/L	1.0	0.042	1	8260B	8/11/10 23:31	KLA	P0H0263
trans-1,2-Dichloroethylene	BRL	ug/L	2.0	0.12	1	8260B	8/11/10 23:31	KLA	P0H0263
trans-1,3-Dichloropropylene	BRL	ug/L	1.0	0.043	1	8260B	8/11/10 23:31	KLA	P0H0263
Trichloroethylene	BRL	ug/L	2.0	0.054	1	8260B	8/11/10 23:31	KLA	P0H0263
Trichlorofluoromethane	BRL	ug/L	2.0	0.088	1	8260B	8/11/10 23:31	KLA	P0H0263
Vinyl acetate	BRL	ug/L	20	0.10	1	8260B	8/11/10 23:31	KLA	P0H0263
Vinyl chloride	BRL	ug/L	2.0	0.16	1	8260B	8/11/10 23:31	KLA	P0H0263
,			Surrogate			Recovery Control Limits			Limits

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	111 %	80-124	_
Dibromofluoromethane	101 %	75-129	
Toluene-d8	101 %	77-123	







Raleigh, NC 27607

Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 601-1 Prism Sample ID: 0080167-05 Prism Work Order: 0080167 Time Collected: 08/04/10 07:40 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Semivolatile Organic Compour	nds by GC/MS								
1,2,4-Trichlorobenzene	BRL	ug/L	10	2.2	1	8270D	8/13/10 0:20	CGP	P0H0259
1,2-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:20	CGP	P0H0259
1,3-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:20	CGP	P0H0259
1,4-Dichlorobenzene	BRL	ug/L	10	2.0	1	8270D	8/13/10 0:20	CGP	P0H0259
2,4,5-Trichlorophenol	BRL	ug/L	10	2.5	1	8270D	8/13/10 0:20	CGP	P0H0259
2,4,6-Trichlorophenol	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:20	CGP	P0H0259
2,4-Dichlorophenol	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:20	CGP	P0H0259
2,4-Dimethylphenol	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:20	CGP	P0H0259
2,4-Dinitrophenol	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:20	CGP	P0H0259
2,4-Dinitrotoluene	BRL	ug/L	10	0.95	1	8270D	8/13/10 0:20	CGP	P0H0259
2,6-Dinitrotoluene	BRL	ug/L	10	1.6	1	8270D	8/13/10 0:20	CGP	P0H0259
2-Chloronaphthalene	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:20	CGP	P0H0259
2-Chlorophenol	BRL	ug/L	10	2.1	1	8270D	8/13/10 0:20	CGP	P0H0259
2-Methylnaphthalene	BRL	ug/L	10	2.6	1	8270D	8/13/10 0:20	CGP	P0H0259
2-Methylphenol	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:20	CGP	P0H0259
2-Nitroaniline	BRL	ug/L	10	1.9	1	8270D	8/13/10 0:20	CGP	P0H0259
2-Nitrophenol	BRL	ug/L	10	2.5	1	8270D	8/13/10 0:20	CGP	P0H0259
3,3'-Dichlorobenzidine	BRL	ug/L	10	0.96	1	8270D	8/13/10 0:20	CGP	P0H0259
3/4-Methylphenol	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:20	CGP	P0H0259
3-Nitroaniline	BRL	ug/L	10	1.3	1	8270D	8/13/10 0:20	CGP	P0H0259
4,6-Dinitro-2-methylphenol	BRL	ug/L	10	2.7	1	8270D	8/13/10 0:20	CGP	P0H0259
4-Bromophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:20	CGP	P0H0259
4-Chloro-3-methylphenol	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:20	CGP	P0H0259
4-Chloroaniline	BRL	ug/L	10	2.5	1	8270D	8/13/10 0:20	CGP	P0H0259
4-Chlorophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:20	CGP	P0H0259
4-Nitroaniline	BRL	ug/L	10	0.91	1	8270D	8/13/10 0:20	CGP	P0H0259
4-Nitrophenol	BRL	ug/L	50	2.6	1	8270D	8/13/10 0:20	CGP	P0H0259
Acenaphthene	BRL	ug/L	10	2.1	1	8270D	8/13/10 0:20	CGP	P0H0259
Acenaphthylene	BRL	ug/L	10	2.2	1	8270D	8/13/10 0:20	CGP	P0H0259
Aniline	BRL	ug/L	10	2.2	1	8270D	8/13/10 0:20	CGP	P0H0259
Anthracene	BRL	ug/L	10	1.2	1	8270D	8/13/10 0:20	CGP	P0H0259
Azobenzene	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:20	CGP	P0H0259
Benzo(a)anthracene	BRL	ug/L	10	0.95	1	8270D	8/13/10 0:20	CGP	P0H0259
Benzo(a)pyrene	BRL	ug/L	10	1.1	1	8270D	8/13/10 0:20	CGP	P0H0259
Benzo(b)fluoranthene	BRL	ug/L	10	1.4	1	8270D	8/13/10 0:20	CGP	P0H0259
Benzo(g,h,i)perylene	BRL	ug/L	10	2.1	1	8270D	8/13/10 0:20	CGP	P0H0259
Benzo(k)fluoranthene	BRL	ug/L	10	1.1	1	8270D	8/13/10 0:20	CGP	P0H0259
Benzoic Acid	BRL	ug/L	100	50	1	8270D	8/13/10 0:20	CGP	P0H0259
Benzyl alcohol	BRL	ug/L	10	2.1	1	8270D	8/13/10 0:20	CGP	P0H0259
bis(2-Chloroethoxy)methane	BRL	ug/L	10	2.2	1	8270D	8/13/10 0:20	CGP	P0H0259
Bis(2-Chloroethyl)ether	BRL	ug/L	10	1.9	1	8270D	8/13/10 0:20	CGP	P0H0259
Bis(2-chloroisopropyl)ether	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:20	CGP	P0H0259



08/30/2010



Solutions IES (NCDOT Project) Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 601-1 Prism Sample ID: 0080167-05 Prism Work Order: 0080167 Time Collected: 08/04/10 07:40 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bis(2-Ethylhexyl)phthalate	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:20	CGP	P0H0259
Butyl benzyl phthalate	BRL	ug/L	10	1.5	1	8270D	8/13/10 0:20	CGP	P0H0259
Chrysene	BRL	ug/L	10	1.2	1	8270D	8/13/10 0:20	CGP	P0H0259
Dibenzo(a,h)anthracene	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:20	CGP	P0H0259
Dibenzofuran	BRL	ug/L	10	2.2	1	8270D	8/13/10 0:20	CGP	P0H0259
Diethyl phthalate	BRL	ug/L	10	1.4	1	8270D	8/13/10 0:20	CGP	P0H0259
Dimethyl phthalate	BRL	ug/L	10	1.6	1	8270D	8/13/10 0:20	CGP	P0H0259
Di-n-butyl phthalate	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:20	CGP	P0H0259
Di-n-octyl phthalate	BRL	ug/L	10	1.9	1	8270D	8/13/10 0:20	CGP	P0H0259
Fluoranthene	BRL	ug/L	10	0.94	1	8270D	8/13/10 0:20	CGP	P0H0259
Fluorene	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:20	CGP	P0H0259
Hexachlorobenzene	BRL	ug/L	10	1.4	1	8270D	8/13/10 0:20	CGP	P0H0259
Hexachlorobutadiene	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:20	CGP	P0H0259
Hexachlorocyclopentadiene	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:20	CGP	P0H0259
Hexachloroethane	BRL	ug/L	10	1.9	1	8270D	8/13/10 0:20	CGP	P0H0259
Indeno(1,2,3-cd)pyrene	BRL	ug/L	10	1.6	1	8270D	8/13/10 0:20	CGP	P0H0259
Isophorone	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:20	CGP	P0H0259
Naphthalene	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:20	CGP	P0H0259
Nitrobenzene	BRL	ug/L	10	2.0	1	8270D	8/13/10 0:20	CGP	P0H0259
N-Nitroso-di-n-propylamine	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:20	CGP	P0H0259
N-Nitrosodiphenylamine	BRL	ug/L	10	1.6	1	8270D	8/13/10 0:20	CGP	P0H0259
Pentachlorophenol	BRL	ug/L	10	1.6	1	8270D	8/13/10 0:20	CGP	P0H0259
Phenanthrene	BRL	ug/L	10	1.2	1	8270D	8/13/10 0:20	CGP	P0H0259
Phenol	BRL	ug/L	10	2.2	1	8270D	8/13/10 0:20	CGP	P0H0259
Pyrene	BRL	ug/L	10	1.4	1	8270D	8/13/10 0:20	CGP	P0H0259
			Surrogate			Recov	very	Control I	imits
			2,4,6-Tribro	mophenol		26	5 %	26-139	
			2-Fluorobip	henyl		53	3 %	41-112	
			2-Fluorophe	enol		9	%	10-48	SR
			Nitrobenzer	ne-d5		50	0 %	34-102	
			Phenol-d5			10	0 %	10-34	SR
			Terphenyl-c	114		68	3 %	31-165	
Volatile Organic Compounds by	GC/MS								
1,1,1,2-Tetrachloroethane	BRL	ug/L	1.0	0.15	1	8260B	8/12/10 0:10	KLA	P0H0263
1,1,1-Trichloroethane	BRL	ug/L	1.0	0.063	1	8260B	8/12/10 0:10	KLA	P0H0263
1,1,2,2-Tetrachloroethane	BRL	ug/L	1.0	0.071	1	8260B	8/12/10 0:10	KLA	P0H0263
1,1,2-Trichloroethane	BRL	ug/L	1.0	0.17	1	8260B	8/12/10 0:10	KLA	P0H0263
1,1-Dichloroethane	BRL	ug/L	1.0	0.096	1	8260B	8/12/10 0:10	KLA	P0H0263
1,1-Dichloroethylene	BRL	ug/L	1.0	0.078	1	8260B	8/12/10 0:10	KLA	P0H0263
1,1-Dichloropropylene	BRL	ug/L	1.0	0.061	1	8260B	8/12/10 0:10	KLA	P0H0263
1,2,3-Trichlorobenzene	BRL	ug/L	2.0	0.20	1	8260B	8/12/10 0:10	KLA	P0H0263
1,2,3-Trichloropropane	BRL	ug/L	1.0	0.081	1	8260B	8/12/10 0:10	KLA	P0H0263
1,2,4-Trichlorobenzene	BRL	ug/L	1.0	0.10	1	8260B	8/12/10 0:10	KLA	P0H0263







Solutions IES (NCDOT Project)

Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 601-1 Prism Sample ID: 0080167-05 Prism Work Order: 0080167 Time Collected: 08/04/10 07:40 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,2,4-Trimethylbenzene	1.3	ug/L	1.0	0.048	1	8260B	8/12/10 0:1	0 KLA	P0H0263
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	8260B	8/12/10 0:1	0 KLA	P0H0263
1,2-Dibromoethane	BRL	ug/L	1.0	0.14	1	8260B	8/12/10 0:1	0 KLA	P0H0263
1,2-Dichlorobenzene	BRL	ug/L	1.0	0.076	1	8260B	8/12/10 0:1	0 KLA	P0H0263
1,2-Dichloroethane	BRL	ug/L	1.0	0.14	1	8260B	8/12/10 0:1	0 KLA	P0H0263
1,2-Dichloropropane	BRL	ug/L	1.0	0.13	1	8260B	8/12/10 0:1	0 KLA	P0H0263
1,3,5-Trimethylbenzene	2.8	ug/L	1.0	0.057	1	8260B	8/12/10 0:1	0 KLA	P0H0263
1,3-Dichlorobenzene	BRL	ug/L	1.0	0.074	1	8260B	8/12/10 0:1	0 KLA	P0H0263
1,3-Dichloropropane	BRL	ug/L	1.0	0.11	1	8260B	8/12/10 0:1	0 KLA	P0H0263
1,4-Dichlorobenzene	BRL	ug/L	1.0	0.068	1	8260B	8/12/10 0:1	0 KLA	P0H0263
2,2-Dichloropropane	BRL	ug/L	2.0	0.11	1	8260B	8/12/10 0:1	0 KLA	P0H0263
2-Chloroethyl Vinyl Ether	BRL	ug/L	2.0	0.22	1	8260B	8/12/10 0:1	0 KLA	P0H0263
2-Chlorotoluene	BRL	ug/L	1.0	0.038	1	8260B	8/12/10 0:1	0 KLA	P0H0263
4-Chlorotoluene	BRL	ug/L	1.0	0.053	1	8260B	8/12/10 0:1	0 KLA	P0H0263
4-Isopropyltoluene	BRL	ug/L	1.0	0.065	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Acetone	BRL	ug/L	10	0.62	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Acrolein	BRL	ug/L	100	1.1	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Acrylonitrile	BRL	ug/L	100	0.86	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Benzene	BRL	ug/L	1.0	0.072	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Bromobenzene	BRL	ug/L	1.0	0.064	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Bromochloromethane	BRL	ug/L	1.0	0.13	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Bromodichloromethane	BRL	ug/L	1.0	0.062	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Bromoform	BRL	ug/L	1.0	0.27	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Bromomethane	BRL	ug/L	3.0	0.47	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Carbon disulfide	BRL	ug/L	5.0	1.4	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Carbon Tetrachloride	BRL	ug/L	2.0	0.12	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Chlorobenzene	BRL	ug/L	1.0	0.061	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Chloroethane	BRL	ug/L	5.0	0.13	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Chloroform	BRL	ug/L	1.0	0.089	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Chloromethane	BRL	ug/L	2.0	0.11	1	8260B	8/12/10 0:1	0 KLA	P0H0263
cis-1,2-Dichloroethylene	BRL	ug/L	1.0	0.076	1	8260B	8/12/10 0:1	0 KLA	P0H0263
cis-1,3-Dichloropropylene	BRL	ug/L	1.0	0.10	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Dibromochloromethane	BRL	ug/L	1.0	0.30	1	8260B	8/12/10 0:1	0 KLA	P0H0263
Dibromomethane	BRL	ug/L	1.0	0.13	1	8260B	8/12/10 0:1		P0H0263
Dichlorodifluoromethane	BRL	ug/L	2.0	0.11	1	8260B	8/12/10 0:1		P0H0263
Ethylbenzene	BRL	ug/L	1.0	0.067	1	8260B	8/12/10 0:1		P0H0263
Hexachlorobutadiene	BRL	ug/L	2.0	0.36	1	8260B	8/12/10 0:1		P0H0263
sopropyl Ether	BRL	ug/L	1.0	0.043	1	8260B	8/12/10 0:1		P0H0263
sopropylbenzene (Cumene)	BRL	ug/L	1.0	0.072	1	8260B	8/12/10 0:1		P0H0263
m,p-Xylenes	BRL	ug/L	2.0	0.081	1	8260B	8/12/10 0:1		P0H0263
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	5.0	0.19	1	8260B	8/12/10 0:1		P0H0263
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.13	1	8260B	8/12/10 0:1		P0H0263
Methyl Isobutyl Ketone	BRL	ug/L	5.0	0.30	1	8260B	8/12/10 0:1		P0H0263







Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 601-1 Prism Sample ID: 0080167-05 Prism Work Order: 0080167 Time Collected: 08/04/10 07:40 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Methylene Chloride	BRL	ug/L	2.0	0.44	1	8260B	8/12/10 0:10	KLA	P0H0263
Methyl-tert-Butyl Ether	1.3	ug/L	1.0	0.070	1	8260B	8/12/10 0:10	KLA	P0H0263
Naphthalene	0.77 J	ug/L	1.0	0.098	1	8260B	8/12/10 0:10	KLA	P0H0263
n-Butylbenzene	BRL	ug/L	1.0	0.11	1	8260B	8/12/10 0:10	KLA	P0H0263
n-Propylbenzene	BRL	ug/L	1.0	0.060	1	8260B	8/12/10 0:10	KLA	P0H0263
o-Xylene	0.62 J	ug/L	1.0	0.046	1	8260B	8/12/10 0:10	KLA	P0H0263
sec-Butylbenzene	BRL	ug/L	1.0	0.087	1	8260B	8/12/10 0:10	KLA	P0H0263
Styrene	BRL	ug/L	1.0	0.047	1	8260B	8/12/10 0:10	KLA	P0H0263
tert-Butylbenzene	BRL	ug/L	1.0	0.080	1	8260B	8/12/10 0:10	KLA	P0H0263
Tetrachloroethylene	BRL	ug/L	1.0	0.069	1	8260B	8/12/10 0:10	KLA	P0H0263
Toluene	BRL	ug/L	1.0	0.042	1	8260B	8/12/10 0:10	KLA	P0H0263
trans-1,2-Dichloroethylene	BRL	ug/L	2.0	0.12	1	8260B	8/12/10 0:10	KLA	P0H0263
trans-1,3-Dichloropropylene	BRL	ug/L	1.0	0.043	1	8260B	8/12/10 0:10	KLA	P0H0263
Trichloroethylene	BRL	ug/L	2.0	0.054	1	8260B	8/12/10 0:10	KLA	P0H0263
Trichlorofluoromethane	BRL	ug/L	2.0	0.088	1	8260B	8/12/10 0:10	KLA	P0H0263
Vinyl acetate	BRL	ug/L	20	0.10	1	8260B	8/12/10 0:10	KLA	P0H0263
Vinyl chloride	BRL	ug/L	2.0	0.16	1	8260B	8/12/10 0:10	KLA	P0H0263
			Surrogate			Recov	very	Control Limits	
			4-Bromofluo	robenzene	į	10	1 %	80-124	







Solutions IES (NCDOT Project) Attn: Jody Overmyer

1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 229-2 Prism Sample ID: 0080167-06 Prism Work Order: 0080167 Time Collected: 08/04/10 08:10 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Semivolatile Organic Compour	nds by GC/MS								
1,2,4-Trichlorobenzene	BRL	ug/L	10	2.2	1	8270D	8/13/10 0:50	CGP	P0H0259
1,2-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:50	CGP	P0H0259
1,3-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:50	CGP	P0H0259
1,4-Dichlorobenzene	BRL	ug/L	10	2.0	1	8270D	8/13/10 0:50	CGP	P0H0259
2,4,5-Trichlorophenol	BRL	ug/L	10	2.5	1	8270D	8/13/10 0:50	CGP	P0H0259
2,4,6-Trichlorophenol	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:50	CGP	P0H0259
2,4-Dichlorophenol	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:50	CGP	P0H0259
2,4-Dimethylphenol	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:50	CGP	P0H0259
2,4-Dinitrophenol	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:50	CGP	P0H0259
2,4-Dinitrotoluene	BRL	ug/L	10	0.95	1	8270D	8/13/10 0:50	CGP	P0H0259
2,6-Dinitrotoluene	BRL	ug/L	10	1.6	1	8270D	8/13/10 0:50	CGP	P0H0259
2-Chloronaphthalene	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:50	CGP	P0H0259
2-Chlorophenol	BRL	ug/L	10	2.1	1	8270D	8/13/10 0:50	CGP	P0H0259
2-Methylnaphthalene	BRL	ug/L	10	2.6	1	8270D	8/13/10 0:50	CGP	P0H0259
2-Methylphenol	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:50	CGP	P0H0259
2-Nitroaniline	BRL	ug/L	10	1.9	1	8270D	8/13/10 0:50	CGP	P0H0259
2-Nitrophenol	BRL	ug/L	10	2.5	1	8270D	8/13/10 0:50	CGP	P0H0259
3,3'-Dichlorobenzidine	BRL	ug/L	10	0.96	1	8270D	8/13/10 0:50	CGP	P0H0259
3/4-Methylphenol	BRL	ug/L	10	2.4	1	8270D	8/13/10 0:50	CGP	P0H0259
3-Nitroaniline	BRL	ug/L	10	1.3	1	8270D	8/13/10 0:50	CGP	P0H0259
4,6-Dinitro-2-methylphenol	BRL	ug/L	10	2.7	1	8270D	8/13/10 0:50	CGP	P0H0259
4-Bromophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:50	CGP	P0H0259
4-Chloro-3-methylphenol	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:50	CGP	P0H0259
4-Chloroaniline	BRL	ug/L	10	2.5	1	8270D	8/13/10 0:50	CGP	P0H0259
4-Chlorophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:50	CGP	P0H0259
4-Nitroaniline	BRL	ug/L	10	0.91	1	8270D	8/13/10 0:50	CGP	P0H0259
4-Nitrophenol	BRL	ug/L	50	2.6	1	8270D	8/13/10 0:50	CGP	P0H0259
Acenaphthene	BRL	ug/L	10	2.1	1	8270D	8/13/10 0:50	CGP	P0H0259
Acenaphthylene	BRL	ug/L	10	2.2	1	8270D	8/13/10 0:50	CGP	P0H0259
Aniline	BRL	ug/L	10	2.2	1	8270D	8/13/10 0:50	CGP	P0H0259
Anthracene	BRL	ug/L	10	1.2	1	8270D	8/13/10 0:50	CGP	P0H0259
Azobenzene	BRL	ug/L	10	1.8	1	8270D	8/13/10 0:50	CGP	P0H0259
Benzo(a)anthracene	BRL	ug/L	10	0.95	1	8270D	8/13/10 0:50	CGP	P0H0259
Benzo(a)pyrene	BRL	ug/L	10	1.1	1	8270D	8/13/10 0:50	CGP	P0H0259
Benzo(b)fluoranthene	BRL	ug/L	10	1.4	1	8270D	8/13/10 0:50	CGP	P0H0259
Benzo(g,h,i)perylene	BRL	ug/L	10	2.1	1	8270D	8/13/10 0:50	CGP	P0H0259
Benzo(k)fluoranthene	BRL	ug/L	10	1.1	1	8270D	8/13/10 0:50	CGP	P0H0259
Benzoic Acid	BRL	ug/L	100	50	1	8270D	8/13/10 0:50	CGP	P0H0259
Benzyl alcohol	BRL	ug/L	10	2.1	1	8270D	8/13/10 0:50	CGP	P0H0259
bis(2-Chloroethoxy)methane	BRL	ug/L	10	2.2	1	8270D	8/13/10 0:50	CGP	P0H0259
Bis(2-Chloroethyl)ether	BRL	ug/L	10	1.9	1	8270D	8/13/10 0:50	CGP	P0H0259
Bis(2-chloroisopropyl)ether	BRL	ug/L	10	2.3	1	8270D	8/13/10 0:50	CGP	P0H0259



08/30/2010



Solutions IES (NCDOT Project) Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 229-2 Prism Sample ID: 0080167-06 Prism Work Order: 0080167 Time Collected: 08/04/10 08:10 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analys Date/Ti		Analyst	Batch ID
Bis(2-Ethylhexyl)phthalate	BRL	ug/L	10	1.8	1	8270D	8/13/10	0:50	CGP	P0H0259
Butyl benzyl phthalate	BRL	ug/L	10	1.5	1	8270D	8/13/10	0:50	CGP	P0H0259
Chrysene	BRL	ug/L	10	1.2	1	8270D	8/13/10	0:50	CGP	P0H0259
Dibenzo(a,h)anthracene	BRL	ug/L	10	1.8	1	8270D	8/13/10	0:50	CGP	P0H0259
Dibenzofuran	BRL	ug/L	10	2.2	1	8270D	8/13/10	0:50	CGP	P0H0259
Diethyl phthalate	BRL	ug/L	10	1.4	1	8270D	8/13/10	0:50	CGP	P0H0259
Dimethyl phthalate	BRL	ug/L	10	1.6	1	8270D	8/13/10	0:50	CGP	P0H0259
Di-n-butyl phthalate	BRL	ug/L	10	1.8	1	8270D	8/13/10	0:50	CGP	P0H0259
Di-n-octyl phthalate	BRL	ug/L	10	1.9	1	8270D	8/13/10	0:50	CGP	P0H0259
Fluoranthene	BRL	ug/L	10	0.94	1	8270D	8/13/10	0:50	CGP	P0H0259
Fluorene	BRL	ug/L	10	1.8	1	8270D	8/13/10	0:50	CGP	P0H0259
Hexachlorobenzene	BRL	ug/L	10	1.4	1	8270D	8/13/10	0:50	CGP	P0H0259
Hexachlorobutadiene	BRL	ug/L	10	2.3	1	8270D	8/13/10	0:50	CGP	P0H0259
Hexachlorocyclopentadiene	BRL	ug/L	10	1.8	1	8270D	8/13/10	0:50	CGP	P0H0259
Hexachloroethane	BRL	ug/L	10	1.9	1	8270D	8/13/10	0:50	CGP	P0H0259
Indeno(1,2,3-cd)pyrene	BRL	ug/L	10	1.6	1	8270D	8/13/10	0:50	CGP	P0H0259
Isophorone	BRL	ug/L	10	2.4	1	8270D	8/13/10	0:50	CGP	P0H0259
Naphthalene	BRL	ug/L	10	2.3	1	8270D	8/13/10	0:50	CGP	P0H0259
Nitrobenzene	BRL	ug/L	10	2.0	1	8270D	8/13/10	0:50	CGP	P0H0259
N-Nitroso-di-n-propylamine	BRL	ug/L	10	2.3	1	8270D	8/13/10	0:50	CGP	P0H0259
N-Nitrosodiphenylamine	BRL	ug/L	10	1.6	1	8270D	8/13/10	0:50	CGP	P0H0259
Pentachlorophenol	BRL	ug/L	10	1.6	1	8270D	8/13/10	0:50	CGP	P0H0259
Phenanthrene	BRL	ug/L	10	1.2	1	8270D	8/13/10	0:50	CGP	P0H0259
Phenol	BRL	ug/L	10	2.2	1	8270D	8/13/10	0:50	CGP	P0H0259
Pyrene	BRL	ug/L	10	1.4	1	8270D	8/13/10	0:50	CGP	P0H0259
			Surrogate			Reco	very		Control L	_imits
			2,4,6-Tribror	mophenol		66 %			26-139	
			2-Fluorobiph	nenyl		5	7 %		41-112	
			2-Fluorophe	nol		20	5 %		10-48	
			Nitrobenzen	e-d5		52	2 %		34-102	
			Phenol-d5			1:	3 %		10-34	
			Terphenyl-d	14		86	5 %		31-165	
Volatile Organic Compounds by	GC/MS									
1,1,1,2-Tetrachloroethane	BRL	ug/L	1.0	0.15	1	8260B	8/12/10	0:58	KLA	P0H0263
1,1,1-Trichloroethane	BRL	ug/L	1.0	0.063	1	8260B	8/12/10		KLA	P0H0263
1,1,2,2-Tetrachloroethane	BRL	ug/L	1.0	0.071	1	8260B	8/12/10		KLA	P0H0263
1,1,2-Trichloroethane	BRL	ug/L	1.0	0.17	1	8260B	8/12/10		KLA	P0H0263
1,1-Dichloroethane	BRL	ug/L	1.0	0.096	1	8260B	8/12/10		KLA	P0H0263
1,1-Dichloroethylene	BRL	ug/L	1.0	0.078	1	8260B	8/12/10		KLA	P0H0263
1,1-Dichloropropylene	BRL	ug/L	1.0	0.061	1	8260B	8/12/10		KLA	P0H0263
A STATE OF		_								
1.2.3-Trichlorobenzene	BRI	uα/l	2 0	0.20	1	8260B	8/12/10	ი 58	KIA	PURUZOS
1,2,3-Trichlorobenzene 1,2,3-Trichloropropane	BRL BRL	ug/L ug/L	2.0 1.0	0.20 0.081	1 1	8260B 8260B	8/12/10 8/12/10		KLA KLA	P0H0263 P0H0263







Solutions IES (NCDOT Project)

Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 229-2 Prism Sample ID: 0080167-06 Prism Work Order: 0080167 Time Collected: 08/04/10 08:10 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Ana Date/Time	yst Batch ID
1,2,4-Trimethylbenzene	BRL	ug/L	1.0	0.048	1	8260B	8/12/10 0:58 I	LA P0H0263
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	8260B	8/12/10 0:58 I	LA P0H0263
1,2-Dibromoethane	BRL	ug/L	1.0	0.14	1	8260B	8/12/10 0:58 I	LA P0H0263
1,2-Dichlorobenzene	BRL	ug/L	1.0	0.076	1	8260B	8/12/10 0:58 I	LA P0H0263
1,2-Dichloroethane	BRL	ug/L	1.0	0.14	1	8260B	8/12/10 0:58 I	LA P0H0263
1,2-Dichloropropane	BRL	ug/L	1.0	0.13	1	8260B	8/12/10 0:58 I	LA P0H0263
1,3,5-Trimethylbenzene	BRL	ug/L	1.0	0.057	1	8260B	8/12/10 0:58 I	LA P0H0263
1,3-Dichlorobenzene	BRL	ug/L	1.0	0.074	1	8260B	8/12/10 0:58 I	LA P0H0263
1,3-Dichloropropane	BRL	ug/L	1.0	0.11	1	8260B	8/12/10 0:58 I	LA P0H0263
1,4-Dichlorobenzene	BRL	ug/L	1.0	0.068	1	8260B	8/12/10 0:58 I	LA P0H0263
2,2-Dichloropropane	BRL	ug/L	2.0	0.11	1	8260B	8/12/10 0:58 I	LA P0H0263
2-Chloroethyl Vinyl Ether	BRL	ug/L	2.0	0.22	1	8260B	8/12/10 0:58 I	LA P0H0263
2-Chlorotoluene	BRL	ug/L	1.0	0.038	1	8260B	8/12/10 0:58 I	LA P0H0263
4-Chlorotoluene	BRL	ug/L	1.0	0.053	1	8260B	8/12/10 0:58 I	LA P0H0263
4-Isopropyltoluene	BRL	ug/L	1.0	0.065	1	8260B	8/12/10 0:58 I	LA P0H0263
Acetone	BRL	ug/L	10	0.62	1	8260B	8/12/10 0:58 I	LA P0H0263
Acrolein	BRL	ug/L	100	1.1	1	8260B	8/12/10 0:58 I	LA P0H0263
Acrylonitrile	BRL	ug/L	100	0.86	1	8260B	8/12/10 0:58 I	LA P0H0263
Benzene	BRL	ug/L	1.0	0.072	1	8260B	8/12/10 0:58 I	LA P0H0263
Bromobenzene	BRL	ug/L	1.0	0.064	1	8260B	8/12/10 0:58 I	LA P0H0263
Bromochloromethane	BRL	ug/L	1.0	0.13	1	8260B	8/12/10 0:58 I	LA P0H0263
Bromodichloromethane	BRL	ug/L	1.0	0.062	1	8260B	8/12/10 0:58 I	LA P0H0263
Bromoform	BRL	ug/L	1.0	0.27	1	8260B	8/12/10 0:58 I	LA P0H0263
Bromomethane	BRL	ug/L	3.0	0.47	1	8260B	8/12/10 0:58 I	LA P0H0263
Carbon disulfide	BRL	ug/L	5.0	1.4	1	8260B	8/12/10 0:58 I	LA P0H0263
Carbon Tetrachloride	BRL	ug/L	2.0	0.12	1	8260B	8/12/10 0:58 I	LA P0H0263
Chlorobenzene	BRL	ug/L	1.0	0.061	1	8260B	8/12/10 0:58 I	LA P0H0263
Chloroethane	BRL	ug/L	5.0	0.13	1	8260B	8/12/10 0:58 I	LA P0H0263
Chloroform	BRL	ug/L	1.0	0.089	1	8260B	8/12/10 0:58 I	LA P0H0263
Chloromethane	BRL	ug/L	2.0	0.11	1	8260B	8/12/10 0:58 I	LA P0H0263
cis-1,2-Dichloroethylene	BRL	ug/L	1.0	0.076	1	8260B	8/12/10 0:58 I	LA P0H0263
cis-1,3-Dichloropropylene	BRL	ug/L	1.0	0.10	1	8260B	8/12/10 0:58 I	LA P0H0263
Dibromochloromethane	BRL	ug/L	1.0	0.30	1	8260B	8/12/10 0:58 I	LA P0H0263
Dibromomethane	BRL	ug/L	1.0	0.13	1	8260B	8/12/10 0:58 I	LA P0H0263
Dichlorodifluoromethane	BRL	ug/L	2.0	0.11	1	8260B	8/12/10 0:58 I	LA P0H0263
Ethylbenzene	BRL	ug/L	1.0	0.067	1	8260B	8/12/10 0:58 I	LA P0H0263
Hexachlorobutadiene	BRL	ug/L	2.0	0.36	1	8260B	8/12/10 0:58 I	LA P0H0263
Isopropyl Ether	BRL	ug/L	1.0	0.043	1	8260B	8/12/10 0:58 I	LA P0H0263
Isopropylbenzene (Cumene)	BRL	ug/L	1.0	0.072	1	8260B	8/12/10 0:58 I	LA P0H0263
m,p-Xylenes	BRL	ug/L	2.0	0.081	1	8260B	8/12/10 0:58 I	LA P0H0263
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	5.0	0.19	1	8260B		LA P0H0263
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.90	1	8260B		LA P0H0263
Methyl Isobutyl Ketone	BRL	ug/L	5.0	0.12	1	8260B		LA P0H0263







Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1 Sample Matrix: Water Client Sample ID: 229-2 Prism Sample ID: 0080167-06 Prism Work Order: 0080167 Time Collected: 08/04/10 08:10 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID	
Methylene Chloride	BRL	ug/L	2.0	0.44	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
Methyl-tert-Butyl Ether	0.72 J	ug/L	1.0	0.070	1	8260B	8/12/10 0:58	KLA	P0H0263	
Naphthalene	BRL	ug/L	1.0	0.098	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
n-Butylbenzene	BRL	ug/L	1.0	0.11	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
n-Propylbenzene	BRL	ug/L	1.0	0.060	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
o-Xylene	BRL	ug/L	1.0	0.046	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
sec-Butylbenzene	BRL	ug/L	1.0	0.087	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
Styrene	BRL	ug/L	1.0	0.047	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
tert-Butylbenzene	BRL	ug/L	1.0	0.080	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
Tetrachloroethylene	BRL	ug/L	1.0	0.069	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
Toluene	BRL	ug/L	1.0	0.042	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
trans-1,2-Dichloroethylene	BRL	ug/L	2.0	0.12	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
trans-1,3-Dichloropropylene	BRL	ug/L	1.0	0.043	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
Trichloroethylene	BRL	ug/L	2.0	0.054	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
Trichlorofluoromethane	BRL	ug/L	2.0	0.088	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
Vinyl acetate	BRL	ug/L	20	0.10	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
Vinyl chloride	BRL	ug/L	2.0	0.16	1	8260B	8/12/10 0:58	8 KLA	P0H0263	
			Surrogate			Recov	very	Control Limits		
			4.5				4.07	20.101		

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	104 %	80-124
Dibromofluoromethane	103 %	75-129
Toluene-d8	109 %	77-123







Project: NCDOT Elizabeth City PSA's

- 222 Water St.

Project No.: WBS# 35742.1.1

Sample Matrix: Solid

Client Sample ID: 507-4-1-4 Prism Sample ID: 0080167-07 Prism Work Order: 0080167 Time Collected: 08/04/10 09:15 Time Submitted: 08/05/10 18:05

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	150	mg/kg dry	12	2.0	1	*8015C	8/16/10 14:21	JMV	P0H0313
			Surrogate	Surrogate		Recovery		Control Limits	
			o-Terphenyl			91	1 %	49-124	
Gasoline Range Organics by GC/FII)								
Gasoline Range Organics	BRL	mg/kg dry	6.6	0.86	50	*8015C	8/17/10 12:31	HPE	P0H0354
			Surrogate			Reco	very	Control	Limits
			a,a,a-Trifluor	otoluene		82	2 %	55-129	
General Chemistry Parameters									
% Solids	57.4 Aa	% by Weight	0.100	0.100	1	*SM2540 G	8/12/10 15:31	JAB	P0H0309



Solutions IES (NCDOT Project)

Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's -

222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
D. / I. DOLLOGO										

Batch P0H0263 - 5030B				
Blank (P0H0263-BLK1)				Prepared & Analyzed: 08/11/10
1,1,1,2-Tetrachloroethane	BRL	1.0	ug/L	
1,1,1-Trichloroethane	BRL	1.0	ug/L	
1,1,2,2-Tetrachloroethane	BRL	1.0	ug/L	
1,1,2-Trichloroethane	BRL	1.0	ug/L	
1,1-Dichloroethane	BRL	1.0	ug/L	
1,1-Dichloroethylene	BRL	1.0	ug/L	
1,1-Dichloropropylene	BRL	1.0	ug/L	
1,2,3-Trichlorobenzene	BRL	2.0	ug/L	
1,2,3-Trichloropropane	BRL	1.0	ug/L	
1,2,4-Trichlorobenzene	BRL	1.0	ug/L	
1,2,4-Trimethylbenzene	BRL	1.0	ug/L	
1,2-Dibromo-3-chloropropane	BRL	2.0	ug/L	
1,2-Dibromoethane	BRL	1.0	ug/L	
1,2-Dichlorobenzene	BRL	1.0	ug/L	
1,2-Dichloroethane	BRL	1.0	ug/L	
1,2-Dichloropropane	BRL	1.0	ug/L	
1,3,5-Trimethylbenzene	BRL	1.0	ug/L	
1,3-Dichlorobenzene	BRL	1.0	ug/L	
1,3-Dichloropropane	BRL	1.0	ug/L	
1,4-Dichlorobenzene	BRL	1.0	ug/L	
2,2-Dichloropropane	BRL	2.0	ug/L	
2-Chloroethyl Vinyl Ether	BRL	2.0	ug/L	
2-Chlorotoluene	BRL	1.0	ug/L	
4-Chlorotoluene	BRL	1.0	ug/L	
4-Isopropyltoluene	BRL	1.0	ug/L	
Acetone	BRL	10	ug/L	
Acrolein	BRL	100	ug/L	
Acrylonitrile	BRL	100	ug/L	
Benzene	BRL	1.0	ug/L	
Bromobenzene	BRL	1.0	ug/L	
Bromochloromethane	BRL	1.0	ug/L	
Bromodichloromethane	BRL	1.0	ug/L	
Bromoform	BRL	1.0	ug/L	
Bromomethane	BRL	3.0	ug/L	
Carbon disulfide	BRL	5.0	ug/L	
Carbon Tetrachloride	BRL	2.0	ug/L	
Chlorosthana	BRL BRL	1.0 5.0	ug/L	
Chloroform			ug/L	
Chloroform Chloromethane	BRL BRL	1.0 2.0	ug/L	
cis-1,2-Dichloroethylene	BRL	1.0	ug/L	
cis-1,3-Dichloropropylene	BRL	1.0	ug/L	
Dibromochloromethane	BRL	1.0	ug/L	
Dibromomethane	BRL	1.0	ug/L	
Dichlorodifluoromethane	BRL	2.0	ug/L ug/L	
Ethylbenzene	BRL	1.0	ug/L	
Luyibenzene	DRL	1.0	ug/L	



Project: NCDOT Elizabeth City PSA's -

222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (P0H0263-BLK1)				Prepared & Ana	alyzed: 08/11/	10
Hexachlorobutadiene	BRL	2.0	ug/L			
opropyl Ether	BRL	1.0	ug/L			
opropylbenzene (Cumene)	BRL	1.0	ug/L			
n,p-Xylenes	BRL	2.0	ug/L			
lethyl Butyl Ketone (2-Hexanone)	BRL	5.0	ug/L			
Methyl Ethyl Ketone (2-Butanone)	BRL	5.0	ug/L			
Methyl Isobutyl Ketone	BRL	5.0	ug/L			
Methylene Chloride	BRL	2.0	ug/L			
lethyl-tert-Butyl Ether	BRL	1.0	ug/L			
aphthalene	BRL	1.0	ug/L			
-Butylbenzene	BRL	1.0	ug/L			
-Propylbenzene	BRL	1.0	ug/L			
-Xylene	BRL	1.0	ug/L			
ec-Butylbenzene	BRL	1.0	ug/L			
tyrene	BRL	1.0	ug/L			
rt-Butylbenzene	BRL	1.0	ug/L			
etrachloroethylene	BRL	1.0	ug/L			
oluene	BRL	1.0	ug/L			
ans-1,2-Dichloroethylene	BRL	2.0	ug/L			
ans-1,3-Dichloropropylene	BRL	1.0	ug/L			
richloroethylene	BRL	2.0	ug/L			
richlorofluoromethane	BRL	2.0	ug/L			
inyl acetate	BRL	20	ug/L			
nyl chloride	BRL	2.0	ug/L			
ırrogate: 4-Bromofluorobenzene	26.0		ug/L	25.0	104	80-124
urrogate: Dibromofluoromethane	23.7		ug/L	25.0	95	75-129
urrogate: Toluene-d8	24.3		ug/L	25.0	97	77-123



Project: NCDOT Elizabeth City PSA's -

222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Allalyte	Result	LIIIIIL	UTILIS	Levei	Resuit	70REC	LIIIIIIS	KFD	LIIIII	Notes
Batch P0H0263 - 5030B										
LCS (P0H0263-BS1)				Prepared	& Analyze	d: 08/11/1	0			
1,1-Dichloroethylene	51.1	1.0	ug/L	50.0		102	70-154			
Benzene	53.7	1.0	ug/L	50.0		107	77-128			
Carbon Tetrachloride	60.1	2.0	ug/L	50.0		120	72-142			
Chlorobenzene	51.7	1.0	ug/L	50.0		103	78-119			
Tetrachloroethylene	53.3	1.0	ug/L	50.0		107	80-129			
Toluene	53.6	1.0	ug/L	50.0		107	76-131			
Trichloroethylene	50.2	2.0	ug/L	50.0		100	77-133			
Surrogate: 4-Bromofluorobenzene	25.7		ug/L	25.0		103	80-124			
Surrogate: Dibromofluoromethane	24.2		ug/L	25.0		97	75-129			
Surrogate: Toluene-d8	22.4		ug/L	25.0		90	77-123			
LCS Dup (P0H0263-BSD1)				Prepared	& Analyze	d: 08/11/1	0			
1,1-Dichloroethylene	52.3	1.0	ug/L	50.0		105	70-154	2	200	
Benzene	50.6	1.0	ug/L	50.0		101	77-128	6	200	
Carbon Tetrachloride	55.4	2.0	ug/L	50.0		111	72-142	8	200	
Chlorobenzene	49.8	1.0	ug/L	50.0		100	78-119	4	200	
Tetrachloroethylene	50.7	1.0	ug/L	50.0		101	80-129	5	200	
Toluene	50.8	1.0	ug/L	50.0		102	76-131	5	200	
Trichloroethylene	48.2	2.0	ug/L	50.0		96	77-133	4	200	
Surrogate: 4-Bromofluorobenzene	25.2		ug/L	25.0		101	80-124			
Surrogate: Dibromofluoromethane	24.7		ug/L	25.0		99	75-129			
Surrogate: Toluene-d8	23.1		ug/L	25.0		93	77-123			



Solutions IES (NCDOT Project) Attn: Jody Overmyer

1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's -

222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H0259 - 3510C MS										

Batch P0H0259 - 3510C MS				
Blank (P0H0259-BLK1)				Prepared: 08/11/10 Analyzed: 08/12/10
1,2,4-Trichlorobenzene	BRL	10	ug/L	
1,2-Dichlorobenzene	BRL	10	ug/L	
1,3-Dichlorobenzene	BRL	10	ug/L	
1,4-Dichlorobenzene	BRL	10	ug/L	
2,4,5-Trichlorophenol	BRL	10	ug/L	
2,4,6-Trichlorophenol	BRL	10	ug/L	
2,4-Dichlorophenol	BRL	10	ug/L	
2,4-Dimethylphenol	BRL	10	ug/L	
2,4-Dinitrophenol	BRL	10	ug/L	
2,4-Dinitrotoluene	BRL	10	ug/L	
2,6-Dinitrotoluene	BRL	10	ug/L	
2-Chloronaphthalene	BRL	10	ug/L	
2-Chlorophenol	BRL	10	ug/L	
2-Methylnaphthalene	BRL	10	ug/L	
2-Methylphenol	BRL	10	ug/L	
2-Nitroaniline	BRL	10	ug/L	
2-Nitrophenol	BRL	10	ug/L	
3,3'-Dichlorobenzidine	BRL	10	ug/L	
3/4-Methylphenol	BRL	10	ug/L	
3-Nitroaniline	BRL	10	ug/L	
4,6-Dinitro-2-methylphenol	BRL	10	ug/L	
4-Bromophenyl phenyl ether	BRL	10	ug/L	
4-Chloro-3-methylphenol	BRL	10	ug/L	
4-Chloroaniline	BRL	10	ug/L	
4-Chlorophenyl phenyl ether	BRL	10	ug/L	
4-Nitroaniline	BRL	10	ug/L	
4-Nitrophenol	BRL	50	ug/L	
Acenaphthene	BRL	10	ug/L	
Acenaphthylene	BRL	10	ug/L	
Aniline	BRL	10	ug/L	
Anthracene	BRL	10	ug/L	
Azobenzene	BRL	10	ug/L	
Benzo(a)anthracene	BRL	10	ug/L	
Benzo(a)pyrene	BRL	10	ug/L	
Benzo(b)fluoranthene	BRL	10	ug/L	
Benzo(g,h,i)perylene	BRL	10	ug/L	
Benzo(k)fluoranthene	BRL	10	ug/L	
Benzoic Acid	BRL	100	ug/L	
Benzyl alcohol	BRL	10	ug/L	
bis(2-Chloroethoxy)methane	BRL	10	ug/L	
Bis(2-Chloroethyl)ether	BRL	10	ug/L	
Bis(2-chloroisopropyl)ether	BRL	10	ug/L	
Bis(2-Ethylhexyl)phthalate	BRL	10	ug/L	
Butyl benzyl phthalate	BRL	10	ug/L	
Chrysene	BRL	10	ug/L	
Dibenzo(a,h)anthracene	BRL	10	ug/L	

RPD

Limit

Notes



Solutions IES (NCDOT Project) Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607

Analyte

Di-n-butyl phthalate

Di-n-octyl phthalate

Hexachlorobenzene

Hexachlorobutadiene

Indeno(1,2,3-cd)pyrene

Hexachlorocyclopentadiene Hexachloroethane

N-Nitroso-di-n-propylamine

Surrogate: 2,4,6-Tribromophenol

Surrogate: 2-Fluorobiphenyl

Surrogate: Nitrobenzene-d5

Surrogate: 2-Fluorophenol

Surrogate: Terphenyl-d14

Surrogate: Phenol-d5

N-Nitrosodiphenylamine

Pentachlorophenol

Phenanthrene

Phenol

Pyrene

Fluoranthene

Fluorene

Isophorone

Naphthalene

Nitrobenzene

Project: NCDOT Elizabeth City PSA's -

222 Water St.

Result

BRL

BRL

BRL

BRL

BRL

BRI

BRL

BRL

BRL

BRL

BRL

BRL

BRL

BRL

BRI

BRL

BRL

BRL

58.7

36.3

45.6

34.9

25.3

46.6

Project No: WBS# 35742.1.1

Reporting

Limit

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

Prism Work Order: 0080167

%REC

Limits

%REC

59

73

46 70

25

93

26-139

41-112 10-48

34-102

10-34

31-165

Time Submitted: 8/5/10 6:05:00PM

RPD

Semivolatile Organic Compounds by GC/MS - Quality Control

- ,					
Batch P0H0259 - 3510C MS					
Blank (P0H0259-BLK1)				Prepared: 08/11/10 Analyzed: 08/12/10	
Dibenzofuran	BRL	10	ug/L		
Diethyl phthalate	BRL	10	ug/L		
Dimethyl phthalate	BRL	10	ug/L		

ug/L

100

50.0

100

50.0

100

50.0

Units

Spike

Level

Source

Result



Project: NCDOT Elizabeth City PSA's -

222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P0H0259 - 3510C MS										
LCS (P0H0259-BS1)				Prepared:	: 08/11/10	Analyzed	08/12/10			
1,2,4-Trichlorobenzene	29.4	10	ug/L	50.0		59	39-102			
1,2-Dichlorobenzene	28.3	10	ug/L	50.0		57	46-90			
1,3-Dichlorobenzene	27.6	10	ug/L	50.0		55	31-100			
1,4-Dichlorobenzene	27.9	10	ug/L	50.0		56	45-89			
2,4,5-Trichlorophenol	39.2	10	ug/L	50.0		78	60-108			
2,4,6-Trichlorophenol	37.9	10	ug/L	50.0		76	48-118			
2,4-Dichlorophenol	35.8	10	ug/L	50.0		72	38-107			
2,4-Dimethylphenol	33.7	10	ug/L	50.0		67	26-108			
2,4-Dinitrophenol	28.2	10	ug/L	50.0		56	10-157			
2,4-Dinitrotoluene	41.6	10	ug/L	50.0		83	61-139			
2,6-Dinitrotoluene	39.1	10	ug/L	50.0		78	55-141			
2-Chloronaphthalene	31.8	10	ug/L	50.0		64	46-114			
2-Chlorophenol	30.8	10	ug/L	50.0		62	39-80			
2-Methylnaphthalene	36.3	10	ug/L	50.0		73	39-107			
2-Methylphenol	24.9	10	ug/L	50.0		50	24-73			
2-Nitroaniline	36.0	10	ug/L	50.0		72	65-123			
2-Nitrophenol	35.2	10	ug/L	50.0		70	40-111			
3,3'-Dichlorobenzidine	27.9	10	ug/L	50.0		56	25-203			
3/4-Methylphenol	22.8	10	ug/L	50.0		46	22-84			
3-Nitroaniline	57.3	10	ug/L	50.0		115	66-131			
4,6-Dinitro-2-methylphenol	28.0	10	ug/L	50.0		56	31-155			
4-Bromophenyl phenyl ether	39.8	10	ug/L	50.0		80	50-131			
4-Chloro-3-methylphenol	32.9	10	ug/L	50.0		66	48-94			
4-Chloroaniline	53.4	10	ug/L	50.0		107	45-120			
4-Chlorophenyl phenyl ether	39.1	10	ug/L	50.0		78	55-125			
4-Nitroaniline	39.6	10	ug/L	50.0		79	63-138			
4-Nitrophenol	5.92	50	ug/L	50.0		12	10-89			J
Acenaphthene	37.9	10	ug/L	50.0		76	53-118			J
Acenaphthylene	39.5	10	ug/L	50.0		79	52-121			
Aniline	47.8	10	_	50.0		96	24-105			
Anthracene	44.0	10	ug/L	50.0		88	59-138			
Azobenzene	41.0	10	ug/L	50.0		82	65-123			
	41.4	10	ug/L	50.0		83	63-138			
Benzo(a)anthracene			ug/L							
Benzo(a)pyrene	43.2	10	ug/L	50.0		86	67-142			
Benzo(b)fluoranthene	39.9	10	ug/L	50.0		80	58-151			
Benzo(g,h,i)perylene	32.8	10	ug/L	50.0		66	47-151			
Benzo(k)fluoranthene	54.5	10	ug/L	50.0		109	45-155 10-135			-
Benzoic Acid	BRL	100	ug/L	50.0		40	10-125			Р
Benzyl alcohol	24.2	10	ug/L	50.0		48	25-77			
bis(2-Chloroethoxy)methane	35.6	10	ug/L	50.0		71	42-119			
Bis(2-Chloroethyl)ether	34.6	10	ug/L	50.0		69	38-109			
Bis(2-chloroisopropyl)ether	30.7	10	ug/L	50.0		61	31-117			
Bis(2-Ethylhexyl)phthalate	42.3	10	ug/L	50.0		85	52-165			
Butyl benzyl phthalate	44.2	10	ug/L	50.0		88	51-162			
Chrysene	44.3	10	ug/L	50.0		89	59-137			
Dibenzo(a,h)anthracene	32.4	10	ug/L	50.0		65	43-161			



Solutions IES (NCDOT Project) Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607

Project: NCDOT Elizabeth City PSA's -

222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H0259 - 3510C MS										
LCS (P0H0259-BS1)				Prepared:	08/11/10	Analyzed	: 08/12/10			
Dibenzofuran	38.4	10	ug/L	50.0		77	63-115			
Diethyl phthalate	41.7	10	ug/L	50.0		83	54-135			
Dimethyl phthalate	41.3	10	ug/L	50.0		83	46-135			
Di-n-butyl phthalate	44.1	10	ug/L	50.0		88	51-142			
Di-n-octyl phthalate	44.4	10	ug/L	50.0		89	54-160			
Fluoranthene	42.3	10	ug/L	50.0		85	52-137			
Fluorene	40.7	10	ug/L	50.0		81	56-122			
Hexachlorobenzene	35.5	10	ug/L	50.0		71	57-129			
Hexachlorobutadiene	28.2	10	ug/L	50.0		56	34-110			
Hexachlorocyclopentadiene	21.8	10	ug/L	50.0		44	27-120			
Hexachloroethane	27.0	10	ug/L	50.0		54	37-98			
Indeno(1,2,3-cd)pyrene	28.2	10	ug/L	50.0		56	24-172			
Isophorone	36.6	10	ug/L	50.0		73	44-117			
Naphthalene	35.2	10	ug/L	50.0		70	37-108			
Nitrobenzene	32.1	10	ug/L	50.0		64	29-120			
N-Nitroso-di-n-propylamine	32.8	10	ug/L	50.0		66	42-115			
N-Nitrosodiphenylamine	62.0	10	ug/L	50.0		124	69-142			
Pentachlorophenol	25.8	10	ug/L	50.0		52	42-156			
Phenanthrene	42.0	10	ug/L	50.0		84	60-133			
Phenol	11.2	10	ug/L	50.0		22	10-47			
Pyrene	46.7	10	ug/L	50.0		93	50-152			
Surrogate: 2,4,6-Tribromophenol	75.2		ug/L	100		75	26-139			
Surrogate: 2-Fluorobiphenyl	35.6		ug/L	50.0		71	41-112			
Surrogate: 2-Fluorophenol	33.2		ug/L	100		33	10-48			
Surrogate: Nitrobenzene-d5	32.2		ug/L	50.0		64	34-102			
Surrogate: Phenol-d5	18.1		ug/L	100		18	10-34			
Surrogate: Terphenyl-d14	37.4		ug/L	50.0		75	31-165			



Project: NCDOT Elizabeth City PSA's - 222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H0259 - 3510C MS										
LCS Dup (P0H0259-BSD1)				Prepared:	: 08/11/10	Analyzed	: 08/12/10			
1,2,4-Trichlorobenzene	25.8	10	ug/L	50.0		52	39-102	13	200	
1,2-Dichlorobenzene	25.2	10	ug/L	50.0		50	46-90	11	200	
1,3-Dichlorobenzene	23.8	10	ug/L	50.0		48	31-100	15	200	
1,4-Dichlorobenzene	25.4	10	ug/L	50.0		51	45-89	9	200	
2,4,5-Trichlorophenol	33.5	10	ug/L	50.0		67	60-108	16	200	
2,4,6-Trichlorophenol	32.0	10	ug/L	50.0		64	48-118	17	200	
2,4-Dichlorophenol	30.0	10	ug/L	50.0		60	38-107	18	200	
2,4-Dimethylphenol	29.4	10	ug/L	50.0		59	26-108	14	200	
2,4-Dinitrophenol	23.4	10	ug/L	50.0		47	10-157	19	200	
2,4-Dinitrotoluene	35.2	10	ug/L	50.0		70	61-139	17	200	
2,6-Dinitrotoluene	34.5	10	ug/L	50.0		69	55-141	13	200	
2-Chloronaphthalene	29.7	10	ug/L	50.0		59	46-114	7	200	
2-Chlorophenol	27.3	10	ug/L	50.0		55	39-80	12	200	
2-Methylnaphthalene	31.6	10	ug/L	50.0		63	39-107	14	200	
2-Methylphenol	22.2	10	ug/L	50.0		44	24-73	12	200	
2-Nitroaniline	31.4	10	ug/L	50.0		63	65-123	14	200	А
2-Nitrophenol	30.3	10	ug/L	50.0		61	40-111	15	200	
3,3'-Dichlorobenzidine	22.7	10	ug/L	50.0		45	25-203	21	200	
3/4-Methylphenol	20.8	10	ug/L	50.0		42	22-84	9	200	
3-Nitroaniline	50.0	10	ug/L	50.0		100	66-131	14	200	
4,6-Dinitro-2-methylphenol	23.5	10	ug/L	50.0		47	31-155	18	200	
4-Bromophenyl phenyl ether	33.6	10	ug/L	50.0		67	50-131	17	200	
4-Chloro-3-methylphenol	28.5	10	ug/L	50.0		57	48-94	14	200	
4-Chloroaniline	46.4	10	ug/L	50.0		93	45-120	14	200	
4-Chlorophenyl phenyl ether	33.3	10	ug/L	50.0		67	55-125	16	200	
4-Nitroaniline	33.6	10	ug/L	50.0		67	63-138	16	200	
4-Nitrophenol	5.23	50	ug/L ug/L	50.0		10	10-89	12	200	J
Acenaphthene	33.2	10	_	50.0		66	53-118	13	200	3
•	33.2 34.8		ug/L			70	52-116	13	200	
Acenaphthylene		10	ug/L	50.0						
Aniline	43.6	10	ug/L	50.0		87	24-105	9	200	
Anthracene	38.2	10	ug/L	50.0		76 70	59-138	14	200	
Azobenzene	36.0	10	ug/L	50.0		72 72	65-123	13	200	
Benzo(a)anthracene	36.0	10	ug/L	50.0		72	63-138	14	200	
Benzo(a)pyrene	38.8	10	ug/L	50.0		78	67-142	11	200	
Benzo(b)fluoranthene	34.1	10	ug/L	50.0		68	58-151	16	200	
Benzo(g,h,i)perylene	25.9	10	ug/L	50.0		52	47-151	24	200	
Benzo(k)fluoranthene	48.3	10	ug/L	50.0		97	45-155	12	200	_
Benzoic Acid	BRL	100	ug/L	50.0			10-125		200	Р
Benzyl alcohol	21.9	10	ug/L	50.0		44	25-77	10	200	
bis(2-Chloroethoxy)methane	31.3	10	ug/L	50.0		63	42-119	13	200	
Bis(2-Chloroethyl)ether	30.9	10	ug/L	50.0		62	38-109	11	200	
Bis(2-chloroisopropyl)ether	27.5	10	ug/L	50.0		55	31-117	11	200	
Bis(2-Ethylhexyl)phthalate	36.4	10	ug/L	50.0		73	52-165	15	200	
Butyl benzyl phthalate	37.7	10	ug/L	50.0		75	51-162	16	200	
Chrysene	38.0	10	ug/L	50.0		76	59-137	15	200	
Dibenzo(a,h)anthracene	25.4	10	ug/L	50.0		51	43-161	24	200	



Project: NCDOT Elizabeth City PSA's -

222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H0259 - 3510C MS										
LCS Dup (P0H0259-BSD1)				Prepared	: 08/11/10	Analyzed	: 08/12/10			
Dibenzofuran	33.1	10	ug/L	50.0		66	63-115	15	200	
Diethyl phthalate	37.0	10	ug/L	50.0		74	54-135	12	200	
Dimethyl phthalate	35.7	10	ug/L	50.0		71	46-135	14	200	
Di-n-butyl phthalate	38.4	10	ug/L	50.0		77	51-142	14	200	
Di-n-octyl phthalate	37.7	10	ug/L	50.0		75	54-160	16	200	
Fluoranthene	36.4	10	ug/L	50.0		73	52-137	15	200	
Fluorene	35.6	10	ug/L	50.0		71	56-122	13	200	
Hexachlorobenzene	30.0	10	ug/L	50.0		60	57-129	17	200	
Hexachlorobutadiene	24.6	10	ug/L	50.0		49	34-110	14	200	
Hexachlorocyclopentadiene	17.3	10	ug/L	50.0		35	27-120	23	200	
Hexachloroethane	24.3	10	ug/L	50.0		49	37-98	11	200	
Indeno(1,2,3-cd)pyrene	22.5	10	ug/L	50.0		45	24-172	23	200	
Isophorone	31.9	10	ug/L	50.0		64	44-117	14	200	
Naphthalene	31.4	10	ug/L	50.0		63	37-108	11	200	
Nitrobenzene	28.2	10	ug/L	50.0		56	29-120	13	200	
N-Nitroso-di-n-propylamine	28.6	10	ug/L	50.0		57	42-115	14	200	
N-Nitrosodiphenylamine	52.1	10	ug/L	50.0		104	69-142	17	200	
Pentachlorophenol	21.4	10	ug/L	50.0		43	42-156	19	200	
Phenanthrene	36.5	10	ug/L	50.0		73	60-133	14	200	
Phenol	10.3	10	ug/L	50.0		21	10-47	8	200	
Pyrene	40.2	10	ug/L	50.0		80	50-152	15	200	
Surrogate: 2,4,6-Tribromophenol	63.5		ug/L	100		63	26-139			
Surrogate: 2-Fluorobiphenyl	31.1		ug/L	50.0		62	41-112			
Surrogate: 2-Fluorophenol	31.0		ug/L	100		31	10-48			
Surrogate: Nitrobenzene-d5	28.3		ug/L	50.0		57	34-102			
Surrogate: Phenol-d5	19.8		ug/L	100		20	10-34			
Surrogate: Terphenyl-d14	32.3		ug/L	50.0		65	31-165			



Solutions IES (NCDOT Project) Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's -

222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

Gasoline Range Organics by GC/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Allalyte	Nesuit	LIIIII	Offics	Level	Result	/orceo	LIIIIII	INFD	LIIIII	Notes
Batch P0H0224 - 5035										
Blank (P0H0224-BLK1)			F	Prepared	& Analyze	d: 08/10/1	0			
Gasoline Range Organics	BRL	5.0	mg/kg wet							
Surrogate: a,a,a-Trifluorotoluene	5.10		mg/kg wet	5.00		102	55-129			
LCS (P0H0224-BS1)			F	Prepared	& Analyze	d: 08/10/1	0			
Gasoline Range Organics	45.3	5.0	mg/kg wet	50.0		91	67-116			
Surrogate: a,a,a-Trifluorotoluene	5.55		mg/kg wet	5.00		111	55-129			
LCS Dup (P0H0224-BSD1)			F	Prepared	& Analyze	d: 08/10/1	0			
Gasoline Range Organics	46.8	5.0	mg/kg wet	50.0		94	67-116	3	200	
Surrogate: a,a,a-Trifluorotoluene	5.65		mg/kg wet	5.00		113	55-129			
Batch P0H0354 - 5035										
Blank (P0H0354-BLK1)			F	Prepared	& Analyze	d: 08/16/1	0			
Gasoline Range Organics	BRL	5.0	mg/kg wet							
Surrogate: a,a,a-Trifluorotoluene	5.00		mg/kg wet	5.00		100	55-129			
LCS (P0H0354-BS1)			F	Prepared	& Analyze	d: 08/16/1	0			
Gasoline Range Organics	44.0	5.0	mg/kg wet	50.0		88	67-116			
Surrogate: a,a,a-Trifluorotoluene	5.55		mg/kg wet	5.00		111	55-129			
LCS Dup (P0H0354-BSD1)			F	Prepared	& Analyze	d: 08/16/1	0			
Gasoline Range Organics	45.1	5.0	mg/kg wet	50.0		90	67-116	2	200	
Surrogate: a,a,a-Trifluorotoluene	5.50		mg/kg wet	5.00		110	55-129			



Solutions IES (NCDOT Project) Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's -

222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

Diesel Range Organics by GC/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H0282 - 3545A										
Blank (P0H0282-BLK1)				Prepared	: 08/11/10	Analyzed	: 08/13/10			
Diesel Range Organics	BRL	7.0	mg/kg wet							
Surrogate: o-Terphenyl	1.95		mg/kg wet	1.60		122	49-124			
LCS (P0H0282-BS1)				Prepared	: 08/11/10	Analyzed	: 08/13/10			
Diesel Range Organics	70.7	7.0	mg/kg wet	80.0		88	55-109			
Surrogate: o-Terphenyl	2.54		mg/kg wet	1.60		159	49-124			SR
LCS Dup (P0H0282-BSD1)				Prepared	: 08/11/10	Analyzed	: 08/13/10			
Diesel Range Organics	80.0	7.0	mg/kg wet	79.9		100	55-109	12	200	
Surrogate: o-Terphenyl	2.75		mg/kg wet	1.60		172	49-124			SR
Batch P0H0313 - 3545A										
Blank (P0H0313-BLK1)				Prepared	: 08/12/10	Analyzed	: 08/14/10			
Diesel Range Organics	BRL	7.0	mg/kg wet							
Surrogate: o-Terphenyl	1.79		mg/kg wet	1.60		112	49-124			
LCS (P0H0313-BS1)				Prepared	: 08/12/10	Analyzed	: 08/14/10			
Diesel Range Organics	69.3	7.0	mg/kg wet	79.9		87	55-109			
Surrogate: o-Terphenyl	2.33		mg/kg wet	1.60		146	49-124			SR
LCS Dup (P0H0313-BSD1)				Prepared	: 08/12/10	Analyzed	: 08/14/10			
Diesel Range Organics	73.7	7.0	mg/kg wet	79.9		92	55-109	6	200	
Surrogate: o-Terphenyl	2.42		mg/kg wet	1.60		152	49-124			SR
Matrix Spike (P0H0313-MS1)	So	urce: 008016	7-07	Prepared	: 08/12/10	Analyzed	: 08/16/10			
Diesel Range Organics	655	12	mg/kg dry	139	153	361	50-117			MI
Surrogate: o-Terphenyl	4.21		mg/kg dry	2.78		151	49-124			SR



Solutions IES (NCDOT Project) Attn: Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's -

222 Water St.

Project No: WBS# 35742.1.1

Prism Work Order: 0080167

Time Submitted: 8/5/10 6:05:00PM

Diesel Range Organics by GC/FID - Quality Control

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H0313 -	- 3545A										
Matrix Spike Dup (P0H0313-MSD1)	So	urce: 0080167-	-07	Prepared	I: 08/12/10	Analyzed	: 08/16/10			
Diesel Range Organio	cs	216	12	mg/kg dry	139	153	45	50-117	101	24	D, M
Surrogate: o-Terphen	nyl	2.68		mg/kg dry	2.78		96	49-124			
			Sample	e Extract	ion Data						
Prep Method: 3545A											
Lab Number	Batch	Initial		Final		Date					
0080167-01	P0H0282	25.08 g		1 mL		08/11/10					
0080167-02	P0H0282	25.05 g		1 mL		08/11/10					
0080167-03	P0H0282	25.09 g		1 mL		08/11/10					
0080167-07	P0H0313	25.06 g		1 mL		08/12/10					
Prep Method: 5035											
Lab Number	Batch	Initial		Final		Date					
0080167-01	P0H0224	6.43 g		5 mL		08/10/10					
0080167-02	P0H0224	5.21 g		5 mL		08/10/10					
0080167-03	P0H0224	4.62 g		5 mL		08/10/10					
0080167-07	P0H0354	6.6 g		5 mL		08/16/10					
NO PREP											
Lab Number	Batch	Initial		Final		Date					
0080167-01	P0H0272	30 g		30 mL		08/11/10					
0080167-02	P0H0272	30 g		30 mL		08/11/10					
0080167-03	P0H0272	30 g		30 mL		08/11/10					
0080167-07	P0H0309	30 g		30 mL		08/12/10					
Prep Method: 3510C	MS										
Lab Number	Batch	Initial		Final		Date					
0080167-04	P0H0259	1000 mL		1 mL		08/11/10					
0080167-05	P0H0259	1000 mL		1 mL		08/11/10					
0080167-06	P0H0259	1000 mL		1 mL		08/11/10					
Prep Method: 5030B											
Lab Number	Batch	Initial		Final		Date					
0080167-04	P0H0263	10 mL		10 mL		08/11/10					
0080167-05	P0H0263	10 mL		10 mL		08/11/10					
0080167-06	P0H0263	10 mL		10 mL		08/11/10					



NPDES:

UST:

_NC _SC _NC _SC _NC _SC

GROUNDWATER:

DRINKING WATER:

□NC □SC

SOLID WASTE:

□NC □SC

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

RCRA:

CERCLA NC SC NC SC NC SC

Full-Service Analytical & Environmental Solutions

LABORATORIES, INC.
449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543 Phone: 704/529-6364 • Fax: 704/525-0409
lient Company Name: Solu Gon S-IFS
eport To/Contact Name 5014 OVEVYVUEV
Reporting Address: 101 Nowell Load!
hone: 919-813-1066 Fax (Yes) (No):
mail (Yes) (No) Email Address
DD Type: PDF V Excel Other
ite Location Name: NOON Clizaboth CM PS/15
ite Location Physical Address: 222 Water Street
TIME MATRIX

CHAIN OF CUSTODY RECORD	LAB USE ONLY
PAGE OF QUOTE # TO ENSURE PROPER BILLING:	- Samples INTACT upon arrival?
Project Name: NCDOT 6 17albth City PSAS Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)	Received ON WET ICE? Temp: 21 X FROPER PRESERVATIVES indicated?
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Bequirements	Received WITHIN HOLDING TIMES? CUSTODY SEALS INTACT?
provisions and/or QC Bequirements Invoice To: NCD01 WBS# 35742.1.1	CUSTODY SEALS INTACT? VOLATILES rec'd W/OUT HEADSPACE?

LANDFILL

OTHER:

□NC □SC

PROPER CONTAINERS used?

ORIGINAL

hone: <u>919-873-1066</u>	1	Fáx (Ye	s) (No):		Purchase Or	der No./	Billina Refere	nce <u>43</u> 001	328	75		O BE FILI	LED IN B	Y CLIENT/SAM	PLING PEF	SONNEL
mail (Yes) (No) Email DD Type: PDF VEX Site Location Name: A Site Location Physical	cel_ <i>JU)1</i>	Othe	aboth CIMP	SAS	Requested Due "Working Days Samples receiv Turnaround tim (SEE REVE	Date " ed after 1: e is based RSE FOR	1 Day □ 2 Day 6-9 Days □ Sta 5:00 will be prod on business da FERMS & CONDIT	s 3 Days 4 ndard 10 days 4 essed next busine ys, excluding wee tons regarding s, inc. to client	I Days Rush Wo Pre-Appropriess day. Rends and Services	5 Days rk Must B oved d holidays	e 3. 1	Water Chlo	SC_ orinated:	ACUSACEOTHER_ YESNO_X collection: YES	N/A	NC_ <u>X_</u> _
CLIENT SAMPLE DESCRIPTION		DATE LECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	*TYPE SEE BELOW	LE CONT	AINER SIZE	PRESERVA- TIVES	784	- W /	ANALY!	XO REQUES	STED	REMA	RKS	PRISM LAB ID NO.
222-1-2-4	8/	4/10	820	soil	VO A, 6	4	40ml, 120	Z	K,							Ol
222-2-24	8	4/10	830	Soil	WA,6	4			\times							62,
222-3-0-2	81.	410	835	Soil	VOAB	4	1		>							03
222-3	8	4/10	900	water	VUAA	5	Yank 12	-		\times	X					04
601-1	,	9/10	0740	water	VOA, A	5	(4	X	:				92_
129-2		9/10	810	water	NOA A	5	4	,,		X	X					26
		4/10	0915	Soil	VOA, G	4			X				}	Added ups -	Prom	07
Sampler's Signature					y (Print Name							15-(ES	•	PRESS DOW	N FIRMLY	- 3 COPIES
Upon relinquishing, this submitted in writing to	Chair the Pr	n of Cus ism Proj	tody is your autl ect Manager. Th	nere will be c	harges for any	eed with change	n the analyses is after analys	as requested a es have been in	above. An nitialized	ny chang	jes mus]	PRISM	USE ONLY
Relinquished By: (Signature)	12 L	Dane 1		Rece	eived By (Signatur) 	8819			F)X()	140	Military/Hours	Additio	nal Comments:	Site Arrival 7	
Relinquished By: (Signature)	م ا	1		Rece	eived 1: (Signatur	1	_			Date PHO 15	-10	1150	Roll	énquisho	Site Departu	re Time:
Relinquished By: (Signature)	_ LQ 	18514	<u>. </u>		Fixed For Prism La	peratories E	('a			102	70	1600	leg-	Ja Mgir	Field Tech F Mileage:	ee:
Method of Shipment: NOTE: A SAMPLE	S ARE	NOTACCE	ERS SHOULD BE TA PTED AND VERIFIED	AGAINST COC I	CUSTODY SEALS UNTIL RECEIVED	FOR TRAI	NSPORTATION TO BORATORY.	THE LABORATORY	Υ.	COC Gro	up No.		85	-10	Provence Synt 1511	<u> </u>
Deadley Dure Distant	doliuara	a XMaii	m Field Service [Othor						, vo	COL	>- †−	Ι .	-/		



NC Certification No. 402 SC Certification No. 99012 NC Drinking Water Cert No. 37735

Case Narrative

08/30/2010

Solutions IES (NCDOT Project) Jody Overmyer 1101 Nowell Road Raleigh, NC 27607 Project: NCDOT Elizabeth City PSA's Project No.: WBS# 35742.1.1 Lab Submittal Date: 08/05/2010

Prism Work Order: 0080212

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

Narrative Notes:

Fecal Coliform analyses subcontracted to Environmental 1, Inc. Laboratory report is attached with a total page count of 8 pages.

Please call if you have any questions relating to this analytical report.

Respectfully,

PRISM LABORATORIES, INC.

VP Laboratory Services

Reviewed By

Kari a.

Data Qualifiers Key Reference:

RPD

BRL Below Reporting Limit
MDL Method Detection Limit

Relative Percent Difference

* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.



Sample Receipt Summary

Prism Work Order:

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received

Samples received in good condition at 0.6 degrees C unless otherwise noted.



Laboratory Report

08/30/2010

Solutions IES (NCDOT Project)

Project: NCDOT Elizabeth City PSA's

Prism Work Order: 0080212

Attn: Chemical Testing Engineer

Materials and Testing, 1801 Blue Ridge Project No.: WBS# 35742.1.1

Raleigh, NC 27607

Field Data

Laboratory ID	Client ID	Field Parameter	Result
0080212-01	507-6-2-4		
0080212-02	601-3-2-3		
0080212-03	229-4-2-4		
0080212-04	229-2-2-4		
0080212-05	601-1-0-2		
0080212-06	222-1-2-4		
0080212-07	222-2-2-4		
0080212-08	507-4-1-4		
0080212-09	222-2		
0080212-10	229-2		
0080212-11	601-1		1.
0080212-12	507-6		

Drinking water ID: 37/15 Wastawater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE GREENVILLE, N.C. 27835-7085 PHONE (252) 756-6208 FAX (252) 756-0633

D#: 425

PRISM (MISC. TESTING)
MS. ANGELA OVERCASH
P.O. BOX 240543
CHARLOTTE ,NC 28224-0543

DATE COLLECTED: 08/03/10 DATE REPORTED: 08/05/10

REVIEWED BY:

Method Sample Sample Analysis Sample Sample Sample #1 #2 #3 #4 #5 Date Analyst Code **PARAMETERS** 08/04/10 MJN SM9221E <2 <2 <2 Fecal Coliform (MPN), /gram Solids <2

Drinking Water ID: 37715 Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE GREENVILLE, N.C. 27835-7085 PHONE (252) 756-6208 FAX (252) 756-0633

ID#: 425

PRISM (MISC. TESTING)
MS. ANGELA OVERCASH
P.O. BOX 240543
CHARLOTTE ,NC 28224-0543

DATE COLLECTED: 08/04/10 DATE REPORTED: 08/05/10

REVIEWED BY:

Sample Analysis Method Sample Sample Sample Sample #9 #10 Date Analyst Code #7 #8 #6 **PARAMETERS** 08/04/10 MEL SM9221E 30 13 Fecal Coliform (MPN), /100 Mls 08/04/10 MJN SM9221E Fecal Coliform (MPN), /gram Solids <2 13 <2

Drinking Water ID: 3/715 Wastewater ID: 10

PHONE (252) 756-6208 FAX (252) 756-0633

P.O. BOX 7085, 114 OAKMONT DRIVE GREENVILLE, N.C. 27835-7085

ID#: 425

PRISM (MISC. TESTING) MS. ANGELA OVERCASH P.O. BOX 240543 CHARLOTTE , NC 28224-0543

DATE COLLECTED: 08/04/10 DATE REPORTED : 08/05/10

Method

Sample Analysis Sample Date Analyst Code #11 #12 **PARAMETERS** 08/04/10 MEL SM9221E 30 2400 Fecal Coliform (MPN), /100 Mls

A49 Springbrook Road • F Phone: 704/529-6364 • F Client Company Name Report To/Contact Nat Reporting Address: 1 Phone: 919-673-100 Email (Yes) (No) Email EDD Type: PDF Ex Site Location Name: 1 Site Location Physical	TOTALES, INC. P.O. Box 240543 • Fax: 704/525-0409 TOTALES, INC. P.O. Box 240543 • Fax: 704/525-0409 TOTALES, INC. P.O. Box 240543 • Fax: 704/525-0409 Address JOY CoelOther.	15-1ES DVE VM YCA Pead JC 2760) (NO): 10 VM YE V. E.	Solutions 28224-0543 Solutions 105.(cw	Project Name: Short Hold An: *Please ATTA provisions and Invoice To: Address: Purchase Ord Requested Due I "Working Days" Samples receive Turnaround time (SEE BEVER	alysis: CH any part of the control o	(Yes) (No)	; ific reporting (0	roject: QC LEVE 2. 1. Days Bush Wor Pre-Appress day. Kends and	(Yes) (No) EL I II III IV) To Days the Must Be byed d holidays.	Samples II Received (PROPER Received (CUSTOD) VOLATILE PROPER TO BE FILLE Certification Water Chlor	ON WET IC PRESERV WITHIN HE SEALS III SE PECTO W CONTAIN ED IN BY ED IN BY SC_ inated:	DE? Temp UW ATIVES indicated' DLDING TIMES? NTACT? OUT HEADSPACERS used?	PLING PER: MPLING PER: M/A	SONNEL NC
CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	*TYPE SEE BELOW	E CONTA	INER SIZE	PRESERVA- TIVES	/¿el	All luty ANAL	YSES REQUEST	ED	REM	IARKS	PRISM LAB ID NO.
507-6-2-4	8/3/10-	1620-	Soil	Plastic	1	250mL	wore *	X	Sample	1				
101-3-2-3	8 3 10	1621-	Soil	Plashe	1	250ml	NONE	X	Sample	2				
229:4-2-4	8/3/10	1645	5011	Plashic-		250mb	Nove	1	Sample	3		SuB	TO E	1
229.2.2-4	8/3/10	1650	Soil	Plastic	1	250 mL	NOVE	X	3gmp18	#		. (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	(HG	
601-1-0-2	2/3/10	1700 -	-Soil	Plashe	<u></u> 1	250ml.	None	×	SAMPLE	9,		-	<u> </u>	_ 200 BOOK
222-1-2-4	8/4/10	825 1	5011	Plastic	1	250mL	none	X	Sample	26		1		
222-2-24	8/4/10	6755	-soil	Plastic	(250mL	none	X	Sample	0				
507-4-4-4	8910	/915:	5011	Plashe	1	250ml	none	X	SUMPLY		-			
222-2	8/9/10	935	water	Plastic			1/25,03	>	Sumple	7 10	-			
229-2	8/4/10	937	valor	Plasfic)		V	X	15040gg/	9///		PPESS DO	WN FIRMLÝ	- 3 COPIE
Sampler's Signature	Kollsen (Dall"	Sampled E	By (Print Name)	Koll	win Da		Affilia		1018 15	<u> </u>	FILOS DO		
Upon relinquishing, this submitted in writing to				1	ماطانيين لمستسي	the englisee	s as requested ses have been i	above. A nitialized	ny changes n I.	nust be			######################################	USE ONLY
Relinquished By: (Signature)	11	7.01	Red	ceived By: (Signature	e) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				08041c	Military/Hours	Additio	onal Comments:	Site Arrival	- T + N + 1 + N + 1 + 1 + 1 + 1 + 1 + 1 + 1
Relinquished By (Signature)	Myn X	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Rec	ceived By: (Signature		V) ()	. 0		S 411	12350			Field Tech F	
Relinguished By: (Signalure)	x LOST.		Red	ceived For Prism Lat	boratories B	1-061	<u> </u>		Date				Mileage:	
Method of Shipment: NOTE/	ALL SAMPLE COOL	ERS SHOULD BE T	APED SHUT WIT	H CUSTODY SEALS	FOR TRAN	ISPORTATION T	TO THE LABORATOR	Υ.	COC Group No				Mileage	<u>Parti de la como de l</u>
1 /			D AGAINST COC	UNTIL RECEIVED	AT THE LAE	BORATORY.								TIVEDES FOR
NPDES: UST:	GROUN	DWATER:	RINKING W	11 to 1	ID WAST		A: CERCL		LANDFILL □ NC □ SC	OTHER:			TERMS	EVERSE FOR & CONDITIONS
			NC SC	· —	C □ SC		·- m	1	n. 4862				INVOIC	E COPY
*CONTAINER TYPE C	CODES: A = A	mber $C = Clea$	ar G = Glass	P = Plastic; I	L= Tello	ni-Lineu Oap	, voa – voiauit	, organi				1 1/2		

Phone: 19.673 1000 Email (Yes) (No) Email EDD Type: PDF Excite Location Physical	28224-0543	Requested Due Date								Samples INTACT upon arrival? Received ON WET ICE? Temp DAG PROPER PRESERVATIVES indicated? Received WITHIN HOLDING TIMES? CUSTODY SEALS INTACT? VOLATILES rec'd W/OUT HEADSPACE? PROPER CONTAINERS used? TO BE FILLED IN BY CLIENT/SAMPL Certification: NELAC USACE SC OTHER								
		TIME	MATRIX	RENDERED	BY PRISM E CONTA	LABORATORI	S, INC. TO CLIENT)		<u> </u>			QUESTE		onecu.		<i></i>		PRISM
CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	COLLECTED MILITARY HOURS	(SOIL, WATER OR SLUDGE)	*TYPE SEE BELOW	NO.	SIZE	PRESERVA- TIVES	(ci	dilla						REN	IARKS	1	LAB ID NO.
601-1	8/4/16	940	water	Plastic	1	100	Na. 5,02	× .	Sample	9/	/			tu E		(Al)	·
507-6	81410	955		Pashe				\times	Samo	101	12_		1					
						1.0					Ž.		-	Su	B 🖒	ο Ε	1 (<u> </u>
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Sampler's Signature	lideg s	2ill	Sampled B	y (Print Name)	Kall	1 1/ la	20 (tion <u>Sy</u>	10 "		-1E	5	PRE	SS DO			- 3 COPIE
Upon relinquishing, this submitted in writing to Relinquished By: (Signature)	the Prism Proje	ct Manager. T	nere will be c	harges for any eived By: (Signature	Citariges	after analys	es have been in	itialized.	Date		Military/H		Additio] nal Con	ments:	7.9	Arrival T	evalvent i v
Relinquished By: (Signature)	lup Do	<u> </u>	Reci	eived By: (Signature) (QS	3, HV			Date	1	103,	2				Site I	Departu	e Time:
A l	العمالين	 		eiyed For Prism Lab	V1	1 Legic	<u> </u>		8 - Date		123º	> ()				Field	Tech Fo	16:
Relinquished By: (Signature)	I SAMPLE COOLE	RS SHOULD BE TA			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	To a	STHE LABORATORY	γ.	COC Group	No.						Milea	ge:	
Method of Shipment: NOTE: A SAMPLE		Autorities to the control of the con	D AGAINST COC	UNTIL RECEIVED A	T THE LAB	ORATORY					Ĭ.							WEDGE FAR
NPDES: UST:	GROUND SC D NC D	WATER: D	RINKING WA	□ NC	D WASTI	□NC	□SC □NC	□ SC (]	SC]	⊒ SC				<u>II</u>	RMS &	VERSE FOR CONDITION