UST CLOSURE REPORT
Parcel #207, Gary Bruce Miller Property
3333 Sparta Rd, North Wilkesboro, NC
State Project: R-3405
WBS Element: 35579.1.1
AMEC Project No.: 566773405

2011 CONTRACT #7000012359

Submitted to:
Mr. Terry Fox, LG, PE
GeoEnvironmental Project Manager

Prepared for UST Owner/Operator and Property Owner:
North Carolina Department of Transportation
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Submitted by Consultant:
AMEC of North Carolina, Inc.
2801 Yorkmont Road
Charlotte, North Carolina 28208
Licensure: NC Engineering F-1253 NC Geology C-247

February 20, 2011

Troy L. Holzschuh
Engineering Technician

Helen Corley, LG
Program Manager

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1.0 INTRODUCTION

In accordance with the North Carolina Department of Transportation (NCDOT) Request for Proposal, dated December 7, 2011, AMEC of North Carolina, Inc. (AMEC) has performed a UST Closure for the Gary Bruce Miller Property (the Site) to be effected by a road improvement project along NC 18, Sparta Rd. The Site building, which is located at 3333 Sparta Rd, most recently operated as a comic store but historically the site appears to have operated as a gas station. It is identified as Parcel #207 within the NCDOT R-3405 design project. The property is located on the western side of Sparta Road in North Wilkesboro of Wilkes County, North Carolina. **(As shown on Figure 1)** The investigation was conducted in accordance with AMEC's Technical and Cost proposal dated December 16, 2011.

On behalf of NCDOT, AMEC is pleased to provide this UST Closure Report to the North Carolina Department of the Environment and Natural Resources (NCDENR). This report summarizes the UST removal activities, excavation of impacted soils and the analytical results of the soil samples collected during the UST system removal.

2.0 SITE INFORMATION

Date of Report: February 20, 2012
Facility I.D.: N/A UST Incident Number (if known): _____
Site Name: Parcel 207 Gary Bruce Miller Property

Site Location: 3333 Sparta Rd, North Wilkesboro, NC
Nearest City/Town: North Wilkesboro County: Wilkes

UST Owner: Gary Bruce Miller
Address: 3333 Sparta Rd, North Wilkesboro, NC Phone:

UST Operator: N/A
Address: N/A Phone: _____

Property Owner: North Carolina Department of Transportation
Address: 1589 Mail Service Center, Raleigh, NC 27699-1589
Phone: (919) 707-6870

Property Occupant: Unoccupied Building Contact: _____
Address: _____ Phone: _____

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Consultant/Contractor: AMEC of North Carolina, Inc.
Address: 2801 Yorkmont Road, Suite 100, Charlotte, NC 28208
Phone: (704) 357-8600

Excavation Contractor: EVO Corporation
Address: 1703 Vargrave Street, Winston Salem, NC
Phone: 336-725-5844

Laboratory/Subcontractor: Pace Analytical Laboratory State Certification No. NC 12
Address: 9800 Kincey Ave # 100, Huntersville, NC 28078 Phone: (704) 875-9092

3.0 RELEASE INFORMATION

Date Discovered: Unknown
Estimated Quantity of Release: None
Cause of Release: None
Source of Release (Dispenser/Piping/UST): N/A
Sizes and contents of UST system(s) from which the release occurred:

There was one 550-gallon UST removed from the site. The UST contained #2 fuel oil most recently. No known release was identified at the site.

4.0 SITE GEOLOGY AND HYDROGEOLOGY

Soils at the site consist of orange, well sorted and clayey silt. The maximum depth penetrated was 6.5 feet below ground surface (bgs) in the tank bed excavated during the removal activities. Groundwater was not encountered during the UST removal activities.

5.0 CLOSURE PROCEDURES

UST closure commenced January 31, 2012 with a vacuum truck extracting the contents of the UST. A 150 gallon mixture of water and #2 oil was evacuated collectively from the UST. The UST was rendered inert by inserting dry ice. The lower explosive limit (LEL) within the tank was then checked with a photoionization detector (PID) to verify safe

removal. Next the tank was completely uncovered and removed from the ground. The UST removal confirmed the size and contents of the UST. The actual capacity was 550 gallons and its most recent contents were a mixture of #2 oil and water. The UST was slightly rusted and pitted and did have a hole on its top side; however, the rest of the tank was in good condition. The UST location and excavation layout is shown on **Figure 2**. The UST is shown in the photo log in **Appendix A**.

Field measured PID readings are shown in Table 1. Impacted soils were not observed in the tank bed. Consequently over-excavation was not necessary.

Neither bedrock nor groundwater was encountered within the excavation. The final excavation was rectangular in shape. The maximum depth of the excavations was 6.5 feet bgs. Excavated soil consisted of clayey silt that was orange in color.

The UST was transported to OmniSource Southeast in Winston-Salem, North Carolina for proper disposal and recycling. Certificates of disposal are included in **Appendix B** for the UST and its evacuated fluids. Log of the excavation are presented in **Appendix C.**

5.1 Confirmation Soil Sampling

The site UST removal activities resulted in one excavation. The excavation is located on the central portion of the parcel near the southeastern corner of the building. Field screening indicated that the soil surrounding and underlying the tank was unimpacted and no further excavation was necessary.

Soil sampling activities were conducted in accordance with the *UST Section Guidance Document entitled Guidelines for Site Checks, Tank Closure, and Initial Abatement for UST Releases (December 2008)*. One UST closure sample was collected from directly under the centerline of UST 1. Sample UST-1 was collected at 6.5 feet bgs, which is within 2 feet of the bottom of the UST. The sample location is shown on **Figure 2**.

The above sample was analyzed for volatile organic compounds (VOCs) by US EPA Method 8260B; semi-volatile organic compounds (SVOCs) by EPA Method 8270C; and

volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH) by the Massachusetts Department of Environmental Protection Methods (MADEP).

6.0 ANALYTICAL RESULTS

Soil sample analytical results are presented in **Table 2. Appendix D** includes a copy of the complete laboratory analytical results for the soil sample, which was analyzed for VOCs, SVOCs, VPH and EPH.

Laboratory analysis of the centerline UST Closure sample collected from the UST reported no detections of Volatile or semi-volatile organic compounds nor the volatile or extractable petroleum hydrocarbons.

7.0 CONCLUSIONS AND RECOMENDATIONS

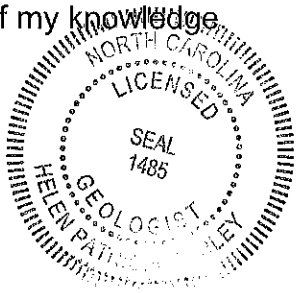
AMEC has completed contracted activities for the UST closure and soil excavation at Parcel 207 located at 3333 Sparta Road in Morganton, North Carolina. The following conclusions are based upon AMEC's field observations and data evaluation from field efforts performed on January 31, 2012.

- One 550-gallon tank was emptied, removed and disposed. The UST did have a hole on the top side of the tank but the rest of the tank, though slightly rusted and pitted had good integrity.
- Analyses of the closure sample from beneath the UST by four methods did not indicate any detections.
- No further actions are recommended.

8.0 CERTIFICATION

I, Helen Corley, L.G, for AMEC of North Carolina, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

Helen Corley



FIGURES

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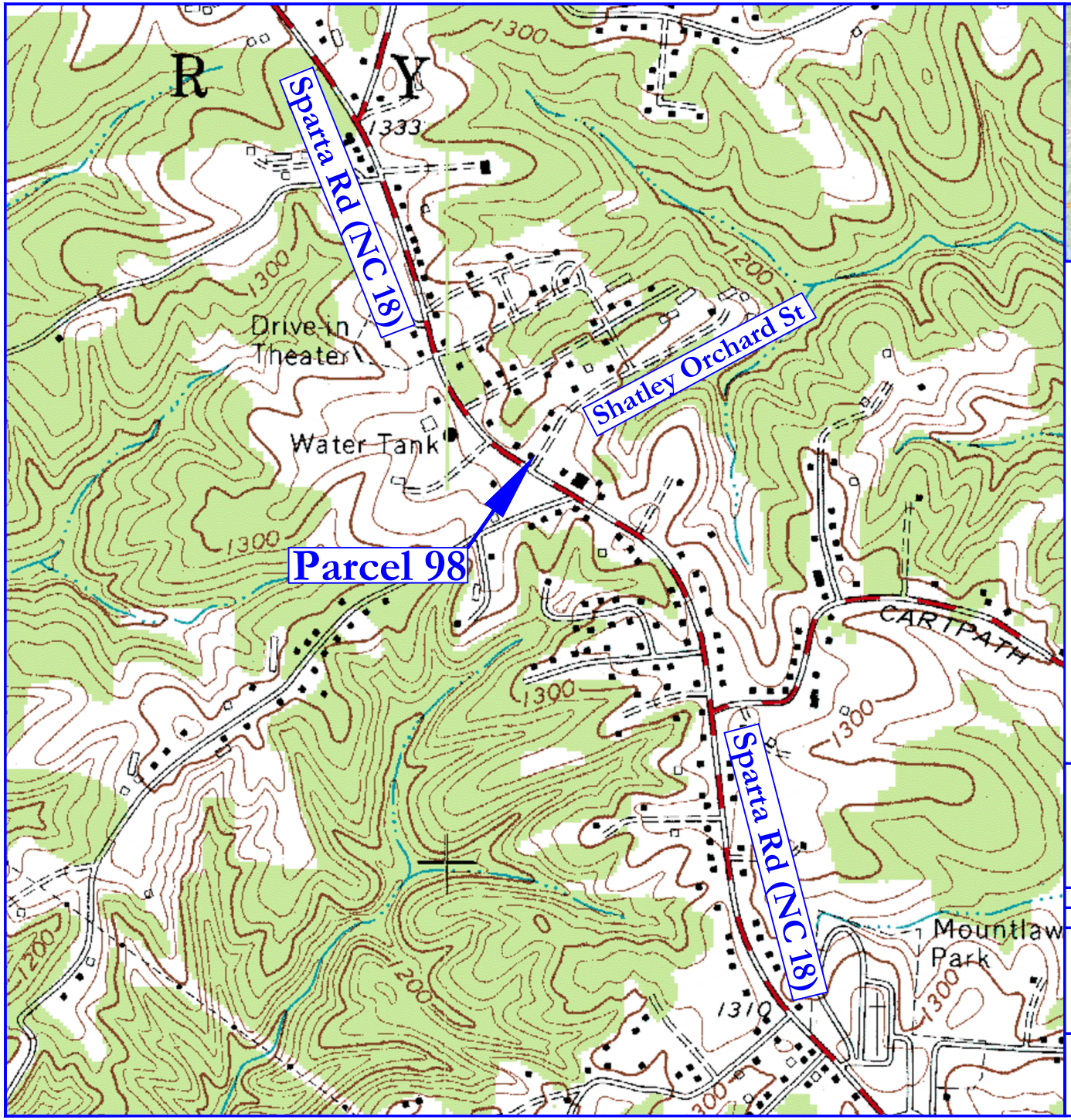
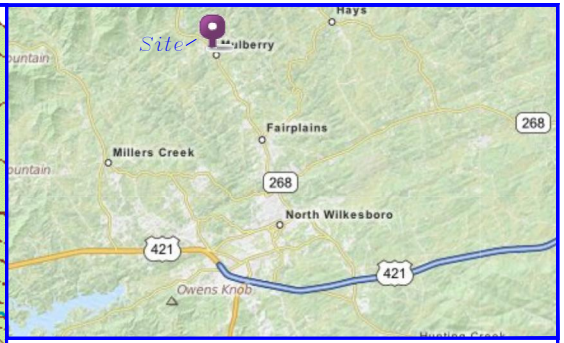




Not to Scale

0' 500' 1000' 1500'

1" = 1000'

7.5 Minute Quadrangle
North Carolina, 1983
Photorevised 1993

VICINITY MAP

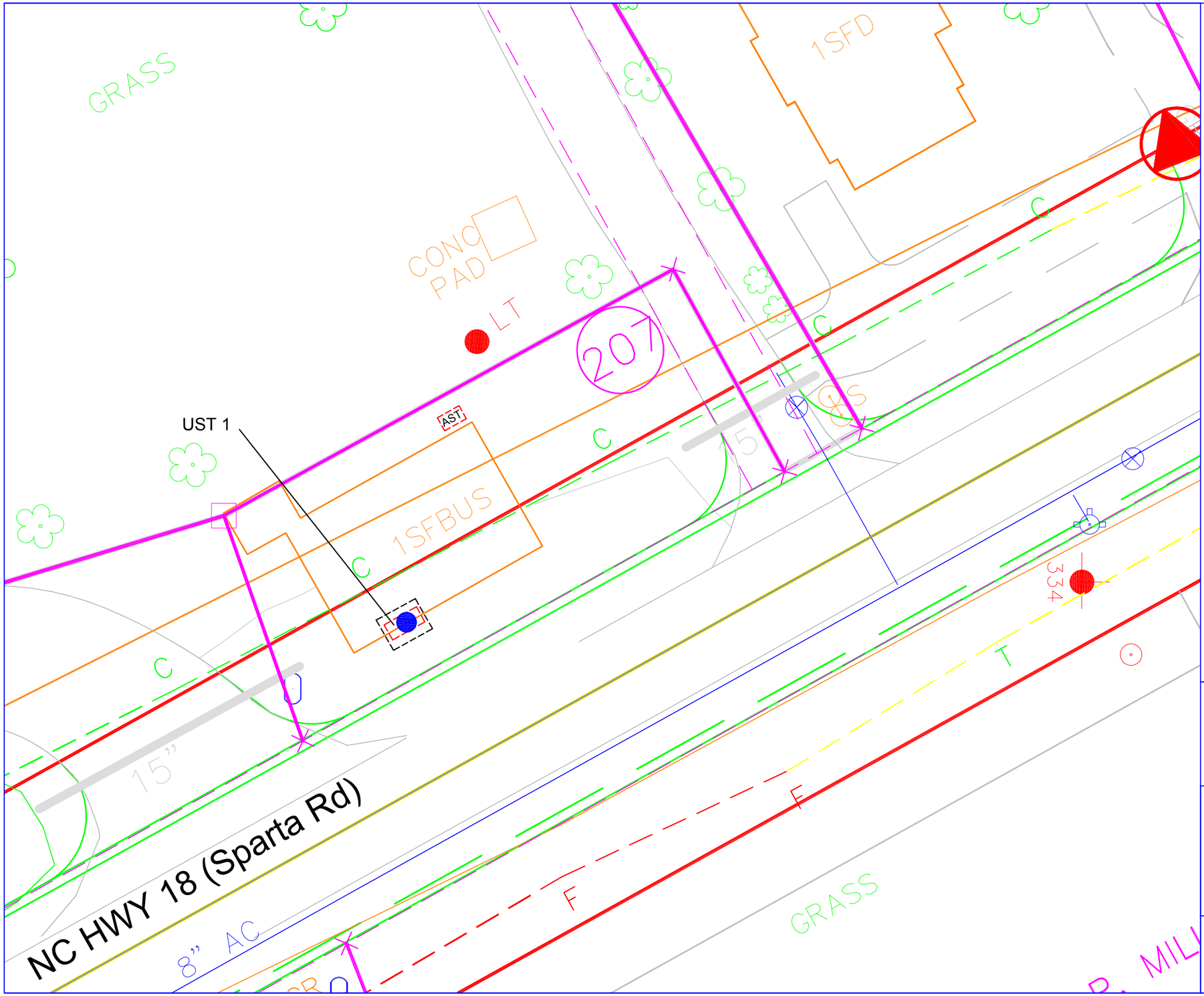
Parcel #98, Steven Joseph Whitley Property
(David's Monuments)
North Wilkesboro, Wilkes County, NC

DRAWING NAME: J:\NCDOT\Wilkes\FIG1			DATE: 1/10/12
SCALE: 1 INCH = 1,000 FEET	DR: TLH	CHK: HPC	REV

PREPARED FOR:
NC Department Of Transportation
Geotechnical Unit
WBS Element:35579.1.1
TIP# R-3405

Prepared By:
amec
2801 Yorkmont Rd.
Suite 100
Charlotte, NC 28208
(704) 357-5616

Figure:
Figure 1



LEGEND

- Proposed Right of Way
- Existing Property Line
- Existing Right of Way
- C — Cut Line
- F — Fill Line
- Soil Sample Location January 2012
- UST
- Excavation
- Utility Easement

0' 15' 30' 60'

1" = 30'

Figure 2
Parcel #207 Gary Bruce Miller Property
Site Map With Sample Locations

NC Department of Transportation
Geotechnical Unit
WBS Element: 35579.1.1
TIP# R-3405

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TABLES

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Table 1
PID Field Screening
Parcel 207, Gary Bruce Miller Property
North Wilkesboro, North Carolina

SAMPLE ID	Sample Date	Comments	Sample Depth (feet bgs)	Field Screening (ppm)
P-1	1/31/2012	Composite Grab Over UST 1	0	0
P-2	1/31/2012	Composite Grab Over UST 1	2	0
P-3	1/31/2012	Composite Grab East Side of Tank	3	0
P-4	1/31/2012	Composite Grab East Side of Tank	6	0
P-5	1/31/2012	Composite Grab North Side of Tank	6	0
P-6	1/31/2012	Composite Grab West Side of Tank	6	0
P-7	1/31/2012	Composite Grab South Side of Tank	6	0
P-8	1/31/2012	UST 1 (Closure Sample)	6.5	0

Notes: PPM = Parts Per Million

Table 2
Soil Analytical Data
Organic Compounds
Parcel 207, Gary Bruce Miller Property
North Wilkesboro, North Carolina

Sample ID Number	Sample Date	Sample Depth (ft bgs)	VOC 8260 (µg/kg)	SVOC 8270 (µg/kg)	Aliphatices (mg/kg)				Aromatics (mg/kg)	
					VPH C5-C8	VPH C9-C12	EPH C9-C18	EPH C19-C36	VPH C9-C10	EPH C11-C22
UST-1	1/31/2012	6.5	All Constituents ND	All Constituents ND	<3.3	<3.3	<12.5	<12.5	<3.3	<12.5

NOTES:
(µg/kg) = Micrograms per kilogram
VOC = Volatile organic compounds
SVOC = Semivolatile organic compounds
VPH = Volaltile Petroleum Hydrocarbons
EPH = Extractable Petroleum Hydrocarbons
ft bgs = feet below ground surface

APPENDIX A

PHOTO LOG

AMEC of North Carolina, Inc.
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Photo 1

Viewing west to Site from directly across Sparta Road.

Photo 2

Viewing west – Back Hoe pulling UST-1.

amec

2801 Yorkmont Rd, Suite 100
Charlotte, North Carolina 282078

W.O. 566773405
PROCESSED TLH
DATE February 2012
PAGE

PHOTOGRAPHIC LOG

UST Closure Activities
Parcel 207, 3333 Sparta Rd, North Wilkesboro, North Carolina

Photo 3

View of a hole on the top side of UST-1

Photo 4

View of site after backfill and grading.

APPENDIX B

MANIFESTS AND DISPOSAL CERTIFICATES

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ENVIRONMENTAL AND INDUSTRIAL RESOURCES

1703 Vargrave Street
Winston-Salem, NC 27107
ph 336-725-5844
fax 336-725-6244

CERTIFICATE OF DISPOSAL

Evo Corporation. does hereby certify that 150 gallons of non-hazardous contaminated sludge received on 01/31/2012 from:

Generator: Gary Bruce Miller

Originating at: 3333 Sparta Rd.
North Wilkesboro, NC

EC Waste ID #: 011214

has been disposed of by Evo Corporation. in a manner approved by the North Carolina Department of Environment and Natural Resources.

Thomas W. Hammett

Signature

Thomas W. Hammett
CEO
Evo Corporation

ENVIRONMENTAL AND INDUSTRIAL RESOURCES

1703 Vargrave Street
Winston-Salem, NC 27107
ph 336-725-5844
fax 336-725-6244

TANK DISPOSAL CERTIFICATE

Tank Owner: Gary Bruce Miller

Site Address: 3333 Sparta Rd.
North Wilkesboro, NC

Tank Description:

Tank Number	Size of Tank	Contents
1	550 Gallons	#2 Fuel Oil

Transporter: Evo Corporation

EC Project #: 011214

Disposal Certification:

Evo Corporation does hereby certify that the above named storage tank was transported to OmniSource Southeast in Winston-Salem, NC for proper disposal and recycling.

Signature

Thomas W. Hammett
CEO
Evo Corporation

EVO CORPORATION

1703 Vargrave Street, Winston-Salem, NC 27107
www.evocorp.net

NON-HAZARDOUS MATERIALS MANIFEST

Load # Manifest No. 73431

GENERATOR INFORMATION

Generator: Gary Bruce Miller Phone: 704-357-5616

Site Address: 3333 Sparta Road

City/State: North Wilkesboro, NC Contact: Troy Holzschuh

MATERIAL DESCRIPTION / QUANTITY / WEIGHT

Gross Weight (lbs): Material: Water

Empty Weight (lbs): Contaminant: Gasoline / #2 Fuel Oil

Net Weight (lbs):

Quantity 150 Tons Drums Pails Sacs Yards Other: 915

TRANSPORTER INFORMATION

Transporter: Evo Corporation Phone: 336-725-5844

Truck #: 5074 SWS Contact: Tony Disher

As the transporter, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Driver Signature: Date: 1-31-12

FACILITY INFORMATION

011214

Evo Project #:

EVO CORPORATION
1703 Vargrave Street
Winston-Salem, NC 27107

Phone: (336) 725-5844

Contact: Tony Disher

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the State of North Carolina.

Facility Signature: Date: 1-31-12

White/Facility Canary/Invoice Goldenrod/Generator Pink/Carrier

EVO CORPORATION

1703 Vargrave Street, Winston-Salem, NC 27107
www.evocorp.net

NON-HAZARDOUS MATERIALS MANIFEST

Load #

Manifest No. 73431

GENERATOR INFORMATION

Generator: Gary Bruce Miller

Phone: 704-357-5616

Site Address: 3333 Sparta Road

City/State: North Wilkesboro, NC

Contact: Troy Holzschuh

MATERIAL DESCRIPTION / QUANTITY / WEIGHT

Gross Weight (lbs):

Material: Water

Empty Weight (lbs):

Contaminant: Gasoline / #2 Fuel Oil

Net Weight (lbs):

Quantity 150 Tons Drums Pails Sacs Yards Other: gls

TRANSPORTER INFORMATION

Transporter: Evo Corporation

Phone: 336-725-5844

Truck #: 5074 SWS

Contact: Tony Disher

As the transporter, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Driver Signature: [signature] Date: 1-31-12

FACILITY INFORMATION

011214

Evo Project #:

EVO CORPORATION
1703 Vargrave Street
Winston-Salem, NC 27107

Phone: (336) 725-5844

Contact: Tony Disher

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the State of North Carolina.

Facility Signature: Roberto Gonzales

Date: 1-31-12

White/Facility Canary/Invoice Goldenrod/Generator Pink/Carrier

APPENDIX C

EXCAVATION LOG

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Charlotte, NC 28208
Licensure: NC Engineering F-1253 NC Geology C-247 **www.amec.com**

Tel – (704) 357-6800
Fax – (704) 357-8638

	EXCAVATION NO: UST-1
EXCAVATION LOG: Parcel 207 – TIP: R-3405	**PAGE** 1 **OF** 1
LOCATION: 3333 Sparta Rd, North Wilkesboro, North Carolina	**DATE:** 1-31-12
CONTRACTOR: Evo Corporation.	**START:** 1020
HELPER: N/A	**FINISH:** 1325
EXCAVATION METHOD: Back Hoe	**LOGGED BY: TLH**

NOTES:
No groundwater encountered

DEPTH TO ROCK: No bedrock was encountered

TOTAL DEPTH OF EXCAVATION: 6.5 ft bgs

DEPTH IN FEET		MOISTURE	SOIL / BEDROCK DESCRIPTION	PID - Maximum (ppm)
FROM	TO			
0	2	Moist	Orange/Brown, Clayey Silt	0
2	6.5	Moist	Orange, Clayey Silt	0

APPENDIX D

LABORATORY ANALYTICAL REPORT AND
CHAIN OF CUSTODY RECORDS

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(336)623-8921

Pace Analytical Services, Inc.
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Asheville, NC 28804
(828)254-7176

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

February 13, 2012

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

RE: Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Dear Chemical Engineer:
Enclosed are the analytical results for sample(s) received by the laboratory on February 01, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Virginia Drinking Water Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460144

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SAMPLE ANALYTE COUNT

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92111244001	**P207-UST-1 (6.5)**	MADEP EPH	MEJ	7	PASI-C
		MADEP VPH	AW	5	PASI-C
		EPA 8270	PPM	74	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	TNM	1	PASI-C

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PROJECT NARRATIVE

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Method: **MADEP EPH**
Description: MADEP EPH NC Soil
Client: NCDOT West Central
Date: February 13, 2012

General Information:
1 sample was analyzed for MADEP EPH. All samples were received in acceptable condition with any exceptions noted below.

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

Sample Preparation:
The samples were prepared in accordance with MADEP EPH with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

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

Additional Comments:

Analyte Comments:

QC Batch: OEXT/16342

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 718513)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- LCS (Lab ID: 718514)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)

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PROJECT NARRATIVE

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Method: **MADEP EPH**
Description: MADEP EPH NC Soil
Client: NCDOT West Central
Date: February 13, 2012

Analyte Comments:

QC Batch: OEXT/16342

N2: The lab does not hold TNI accreditation for this parameter.

- LCSD (Lab ID: 718515)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- P207-UST-1 (6.5) (Lab ID: 92111244001)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)

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PROJECT NARRATIVE

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Method: **MADEP VPH**
Description: VPH NC Soil
Client: NCDOT West Central
Date: February 13, 2012

General Information:
1 sample was analyzed for MADEP VPH. All samples were received in acceptable condition with any exceptions noted below.

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

Sample Preparation:
The samples were prepared in accordance with MADEP VPH with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

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

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

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

Additional Comments:

Analyte Comments:

QC Batch: GCV/5721

1g: Surrogate fails after Moisture Correction for Methanol.
- P207-UST-1 (6.5) (Lab ID: 92111244001)
  - 2,5-Dibromotoluene (FID)(S)

N2: The lab does not hold TNI accreditation for this parameter.
- BLANK (Lab ID: 716906)
  - Aliphatic (C05-C08)

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PROJECT NARRATIVE

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Method: **MADEP VPH**
Description: VPH NC Soil
Client: NCDOT West Central
Date: February 13, 2012

Analyte Comments:

QC Batch: GCV/5721

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 716906)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCS (Lab ID: 716907)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCSD (Lab ID: 716908)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- P207-UST-1 (6.5) (Lab ID: 92111244001)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)

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PROJECT NARRATIVE

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Method: **EPA 8270**
Description: 8270 MSSV Microwave
Client: NCDOT West Central
Date: February 13, 2012

General Information:
1 sample was analyzed for EPA 8270. All samples were received in acceptable condition with any exceptions noted below.

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

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

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

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

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

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

Additional Comments:

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PROJECT NARRATIVE

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: NCDOT West Central
Date: February 13, 2012

General Information:
1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

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

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

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

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

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

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

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

Additional Comments:

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

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ANALYTICAL RESULTS

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Sample: P207-UST-1 (6.5) **Lab ID: 92111244001** Collected: 01/31/12 13:20 Received: 02/01/12 12:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
MADEP EPH NC Soil	Analytical Method: MADEP EPH Preparation Method: MADEP EPH							
Aliphatic (C09-C18)	ND	mg/kg	12.5	1	02/07/12 14:00	02/10/12 17:18		N2
Aliphatic (C19-C36)	ND	mg/kg	12.5	1	02/07/12 14:00	02/10/12 17:18		N2
Aromatic (C11-C22)	ND	mg/kg	12.5	1	02/07/12 14:00	02/10/12 17:18		N2
Surrogates								
Nonatriacontane (S)	61	%	40-140	1	02/07/12 14:00	02/10/12 17:18	7194-86-7	
o-Terphenyl (S)	78	%	40-140	1	02/07/12 14:00	02/10/12 17:18	84-15-1	
2-Fluorobiphenyl (S)	106	%	40-140	1	02/07/12 14:00	02/10/12 17:18	321-60-8	
2-Bromonaphthalene (S)	111	%	40-140	1	02/07/12 14:00	02/10/12 17:18	580-13-2	
VPH NC Soil	Analytical Method: MADEP VPH Preparation Method: MADEP VPH							
Aliphatic (C05-C08)	ND	mg/kg	3.3	1	02/01/12 16:38	02/02/12 00:21		N2
Aliphatic (C09-C12)	ND	mg/kg	3.3	1	02/01/12 16:38	02/02/12 00:21		N2
Aromatic (C09-C10)	ND	mg/kg	3.3	1	02/01/12 16:38	02/02/12 00:21		N2
Surrogates								
2,5-Dibromotoluene (PID)(S)	101	%	70-130	1	02/01/12 16:38	02/02/12 00:21		
2,5-Dibromotoluene (FID)(S)	131	%	70-130	1	02/01/12 16:38	02/02/12 00:21		1g
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	83-32-9	
Acenaphthylene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	208-96-8	
Aniline	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	62-53-3	
Anthracene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	120-12-7	
Benzo(a)anthracene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	56-55-3	
Benzo(a)pyrene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	207-08-9	
Benzoic Acid	ND	ug/kg	2100	1	02/02/12 14:55	02/04/12 17:28	65-85-0	
Benzyl alcohol	ND	ug/kg	842	1	02/02/12 14:55	02/04/12 17:28	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	101-55-3	
Butylbenzylphthalate	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	842	1	02/02/12 14:55	02/04/12 17:28	59-50-7	
4-Chloroaniline	ND	ug/kg	2100	1	02/02/12 14:55	02/04/12 17:28	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	108-60-1	
2-Chloronaphthalene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	91-58-7	
2-Chlorophenol	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	7005-72-3	
Chrysene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	53-70-3	
Dibenzofuran	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	2100	1	02/02/12 14:55	02/04/12 17:28	91-94-1	

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ANALYTICAL RESULTS

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Sample: P207-UST-1 (6.5) **Lab ID: 92111244001** Collected: 01/31/12 13:20 Received: 02/01/12 12:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546							
2,4-Dichlorophenol	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	120-83-2	
Diethylphthalate	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	105-67-9	
Dimethylphthalate	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	131-11-3	
Di-n-butylphthalate	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	842	1	02/02/12 14:55	02/04/12 17:28	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	2100	1	02/02/12 14:55	02/04/12 17:28	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	606-20-2	
Di-n-octylphthalate	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	117-81-7	
Fluoranthene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	206-44-0	
Fluorene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	87-68-3	
Hexachlorobenzene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	77-47-4	
Hexachloroethane	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	193-39-5	
Isophorone	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	78-59-1	
1-Methylnaphthalene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	90-12-0	
2-Methylnaphthalene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28		
Naphthalene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	91-20-3	
2-Nitroaniline	ND	ug/kg	2100	1	02/02/12 14:55	02/04/12 17:28	88-74-4	
3-Nitroaniline	ND	ug/kg	2100	1	02/02/12 14:55	02/04/12 17:28	99-09-2	
4-Nitroaniline	ND	ug/kg	842	1	02/02/12 14:55	02/04/12 17:28	100-01-6	
Nitrobenzene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	98-95-3	
2-Nitrophenol	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	88-75-5	
4-Nitrophenol	ND	ug/kg	2100	1	02/02/12 14:55	02/04/12 17:28	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	86-30-6	
Pentachlorophenol	ND	ug/kg	2100	1	02/02/12 14:55	02/04/12 17:28	87-86-5	
Phenanthrene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	85-01-8	
Phenol	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	108-95-2	
Pyrene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	421	1	02/02/12 14:55	02/04/12 17:28	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	75	%	23-110	1	02/02/12 14:55	02/04/12 17:28	4165-60-0	
2-Fluorobiphenyl (S)	73	%	30-110	1	02/02/12 14:55	02/04/12 17:28	321-60-8	
Terphenyl-d14 (S)	78	%	28-110	1	02/02/12 14:55	02/04/12 17:28	1718-51-0	
Phenol-d6 (S)	62	%	22-110	1	02/02/12 14:55	02/04/12 17:28	13127-88-3	
2-Fluorophenol (S)	61	%	13-110	1	02/02/12 14:55	02/04/12 17:28	367-12-4	

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ANALYTICAL RESULTS

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Sample: P207-UST-1 (6.5) **Lab ID: 92111244001** Collected: 01/31/12 13:20 Received: 02/01/12 12:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546							
Surrogates								
2,4,6-Tribromophenol (S)	91	%	27-110	1	02/02/12 14:55	02/04/12 17:28	118-79-6	
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Acetone	ND	ug/kg	102	1		02/02/12 15:15	67-64-1	
Benzene	ND	ug/kg	5.1	1		02/02/12 15:15	71-43-2	
Bromobenzene	ND	ug/kg	5.1	1		02/02/12 15:15	108-86-1	
Bromochloromethane	ND	ug/kg	5.1	1		02/02/12 15:15	74-97-5	
Bromodichloromethane	ND	ug/kg	5.1	1		02/02/12 15:15	75-27-4	
Bromoform	ND	ug/kg	5.1	1		02/02/12 15:15	75-25-2	
Bromomethane	ND	ug/kg	10.2	1		02/02/12 15:15	74-83-9	
2-Butanone (MEK)	ND	ug/kg	102	1		02/02/12 15:15	78-93-3	
n-Butylbenzene	ND	ug/kg	5.1	1		02/02/12 15:15	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.1	1		02/02/12 15:15	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.1	1		02/02/12 15:15	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.1	1		02/02/12 15:15	56-23-5	
Chlorobenzene	ND	ug/kg	5.1	1		02/02/12 15:15	108-90-7	
Chloroethane	ND	ug/kg	10.2	1		02/02/12 15:15	75-00-3	
Chloroform	ND	ug/kg	5.1	1		02/02/12 15:15	67-66-3	
Chloromethane	ND	ug/kg	10.2	1		02/02/12 15:15	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.1	1		02/02/12 15:15	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.1	1		02/02/12 15:15	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.1	1		02/02/12 15:15	96-12-8	
Dibromochloromethane	ND	ug/kg	5.1	1		02/02/12 15:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.1	1		02/02/12 15:15	106-93-4	
Dibromomethane	ND	ug/kg	5.1	1		02/02/12 15:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.1	1		02/02/12 15:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.1	1		02/02/12 15:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.1	1		02/02/12 15:15	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.2	1		02/02/12 15:15	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.1	1		02/02/12 15:15	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.1	1		02/02/12 15:15	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.1	1		02/02/12 15:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.1	1		02/02/12 15:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.1	1		02/02/12 15:15	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.1	1		02/02/12 15:15	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.1	1		02/02/12 15:15	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.1	1		02/02/12 15:15	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.1	1		02/02/12 15:15	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.1	1		02/02/12 15:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.1	1		02/02/12 15:15	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.1	1		02/02/12 15:15	108-20-3	
Ethylbenzene	ND	ug/kg	5.1	1		02/02/12 15:15	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.1	1		02/02/12 15:15	87-68-3	
2-Hexanone	ND	ug/kg	50.9	1		02/02/12 15:15	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.1	1		02/02/12 15:15	98-82-8	

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ANALYTICAL RESULTS

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Sample: P207-UST-1 (6.5) **Lab ID: 92111244001** Collected: 01/31/12 13:20 Received: 02/01/12 12:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	ug/kg	5.1	1		02/02/12 15:15	99-87-6	
Methylene Chloride	ND	ug/kg	20.4	1		02/02/12 15:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.9	1		02/02/12 15:15	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.1	1		02/02/12 15:15	1634-04-4	
Naphthalene	ND	ug/kg	5.1	1		02/02/12 15:15	91-20-3	
n-Propylbenzene	ND	ug/kg	5.1	1		02/02/12 15:15	103-65-1	
Styrene	ND	ug/kg	5.1	1		02/02/12 15:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.1	1		02/02/12 15:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.1	1		02/02/12 15:15	79-34-5	
Tetrachloroethene	ND	ug/kg	5.1	1		02/02/12 15:15	127-18-4	
Toluene	ND	ug/kg	5.1	1		02/02/12 15:15	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.1	1		02/02/12 15:15	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.1	1		02/02/12 15:15	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.1	1		02/02/12 15:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.1	1		02/02/12 15:15	79-00-5	
Trichloroethene	ND	ug/kg	5.1	1		02/02/12 15:15	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.1	1		02/02/12 15:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.1	1		02/02/12 15:15	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.1	1		02/02/12 15:15	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.1	1		02/02/12 15:15	108-67-8	
Vinyl acetate	ND	ug/kg	50.9	1		02/02/12 15:15	108-05-4	
Vinyl chloride	ND	ug/kg	10.2	1		02/02/12 15:15	75-01-4	
Xylene (Total)	ND	ug/kg	10.2	1		02/02/12 15:15	1330-20-7	
m&p-Xylene	ND	ug/kg	10.2	1		02/02/12 15:15	179601-23-1	
o-Xylene	ND	ug/kg	5.1	1		02/02/12 15:15	95-47-6	
Surrogates								
Dibromofluoromethane (S)	95	%	70-130	1		02/02/12 15:15	1868-53-7	
Toluene-d8 (S)	101	%	70-130	1		02/02/12 15:15	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130	1		02/02/12 15:15	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-132	1		02/02/12 15:15	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**21.6**	%	0.10	1		02/02/12 08:41		

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QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

QC Batch: GCV/5721 Analysis Method: MADEP VPH
QC Batch Method: MADEP VPH Analysis Description: VPH NC Soil
Associated Lab Samples: 92111244001

METHOD BLANK: 716906 Matrix: Solid
Associated Lab Samples: 92111244001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C05-C08)	mg/kg	ND	2.5	02/01/12 20:44	N2
Aliphatic (C09-C12)	mg/kg	ND	2.5	02/01/12 20:44	N2
Aromatic (C09-C10)	mg/kg	ND	2.5	02/01/12 20:44	N2
2,5-Dibromotoluene (FID)(S)	%	107	70-130	02/01/12 20:44	
2,5-Dibromotoluene (PID)(S)	%	82	70-130	02/01/12 20:44	

METHOD BLANK: 717379 Matrix: Solid
Associated Lab Samples: 92111244001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C05-C08)	mg/kg	ND	2.4	02/02/12 20:16	N2
Aliphatic (C09-C12)	mg/kg	ND	2.4	02/02/12 20:16	N2
Aromatic (C09-C10)	mg/kg	ND	2.4	02/02/12 20:16	N2
2,5-Dibromotoluene (FID)(S)	%	107	70-130	02/02/12 20:16	
2,5-Dibromotoluene (PID)(S)	%	81	70-130	02/02/12 20:16	

LABORATORY CONTROL SAMPLE & LCSD: 716907 716908

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C05-C08)	mg/kg	14.9	18.0	17.6	120	118	70-130	2	25	N2
Aliphatic (C09-C12)	mg/kg	14.9	16.7	16.9	112	113	30-130	1	25	N2
Aromatic (C09-C10)	mg/kg	5	4.1	4.0	82	80	70-130	2	25	N2
2,5-Dibromotoluene (FID)(S)	%				101	102	70-130			
2,5-Dibromotoluene (PID)(S)	%				97	96	70-130			

LABORATORY CONTROL SAMPLE & LCSD: 717380 717381

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C05-C08)	mg/kg	14.6	14.6	16.9	100	115	70-130	15	25	N2
Aliphatic (C09-C12)	mg/kg	14.6	16.8	16.7	115	114	30-130	0	25	N2
Aromatic (C09-C10)	mg/kg	4.9	4.0	4.0	82	81	70-130	0	25	N2
2,5-Dibromotoluene (FID)(S)	%				103	111	70-130			
2,5-Dibromotoluene (PID)(S)	%				99	98	70-130			

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QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

QC Batch: MSV/18071
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92111244001

METHOD BLANK: 717103
Matrix: Solid
Associated Lab Samples: 92111244001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	7.4	02/02/12 13:15	
1,1,1-Trichloroethane	ug/kg	ND	7.4	02/02/12 13:15	
1,1,2,2-Tetrachloroethane	ug/kg	ND	7.4	02/02/12 13:15	
1,1,2-Trichloroethane	ug/kg	ND	7.4	02/02/12 13:15	
1,1-Dichloroethane	ug/kg	ND	7.4	02/02/12 13:15	
1,1-Dichloroethene	ug/kg	ND	7.4	02/02/12 13:15	
1,1-Dichloropropene	ug/kg	ND	7.4	02/02/12 13:15	
1,2,3-Trichlorobenzene	ug/kg	ND	7.4	02/02/12 13:15	
1,2,3-Trichloropropane	ug/kg	ND	7.4	02/02/12 13:15	
1,2,4-Trichlorobenzene	ug/kg	ND	7.4	02/02/12 13:15	
1,2,4-Trimethylbenzene	ug/kg	ND	7.4	02/02/12 13:15	
1,2-Dibromo-3-chloropropane	ug/kg	ND	7.4	02/02/12 13:15	
1,2-Dibromoethane (EDB)	ug/kg	ND	7.4	02/02/12 13:15	
1,2-Dichlorobenzene	ug/kg	ND	7.4	02/02/12 13:15	
1,2-Dichloroethane	ug/kg	ND	7.4	02/02/12 13:15	
1,2-Dichloropropane	ug/kg	ND	7.4	02/02/12 13:15	
1,3,5-Trimethylbenzene	ug/kg	ND	7.4	02/02/12 13:15	
1,3-Dichlorobenzene	ug/kg	ND	7.4	02/02/12 13:15	
1,3-Dichloropropane	ug/kg	ND	7.4	02/02/12 13:15	
1,4-Dichlorobenzene	ug/kg	ND	7.4	02/02/12 13:15	
2,2-Dichloropropane	ug/kg	ND	7.4	02/02/12 13:15	
2-Butanone (MEK)	ug/kg	ND	148	02/02/12 13:15	
2-Chlorotoluene	ug/kg	ND	7.4	02/02/12 13:15	
2-Hexanone	ug/kg	ND	74.0	02/02/12 13:15	
4-Chlorotoluene	ug/kg	ND	7.4	02/02/12 13:15	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	74.0	02/02/12 13:15	
Acetone	ug/kg	ND	148	02/02/12 13:15	
Benzene	ug/kg	ND	7.4	02/02/12 13:15	
Bromobenzene	ug/kg	ND	7.4	02/02/12 13:15	
Bromochloromethane	ug/kg	ND	7.4	02/02/12 13:15	
Bromodichloromethane	ug/kg	ND	7.4	02/02/12 13:15	
Bromoform	ug/kg	ND	7.4	02/02/12 13:15	
Bromomethane	ug/kg	ND	14.8	02/02/12 13:15	
Carbon tetrachloride	ug/kg	ND	7.4	02/02/12 13:15	
Chlorobenzene	ug/kg	ND	7.4	02/02/12 13:15	
Chloroethane	ug/kg	ND	14.8	02/02/12 13:15	
Chloroform	ug/kg	ND	7.4	02/02/12 13:15	
Chloromethane	ug/kg	ND	14.8	02/02/12 13:15	
cis-1,2-Dichloroethene	ug/kg	ND	7.4	02/02/12 13:15	
cis-1,3-Dichloropropene	ug/kg	ND	7.4	02/02/12 13:15	
Dibromochloromethane	ug/kg	ND	7.4	02/02/12 13:15	
Dibromomethane	ug/kg	ND	7.4	02/02/12 13:15	
Dichlorodifluoromethane	ug/kg	ND	14.8	02/02/12 13:15	

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QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

METHOD BLANK: 717103 Matrix: Solid

Associated Lab Samples: 92111244001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	ND	7.4	02/02/12 13:15	
Ethylbenzene	ug/kg	ND	7.4	02/02/12 13:15	
Hexachloro-1,3-butadiene	ug/kg	ND	7.4	02/02/12 13:15	
Isopropylbenzene (Cumene)	ug/kg	ND	7.4	02/02/12 13:15	
m&p-Xylene	ug/kg	ND	14.8	02/02/12 13:15	
Methyl-tert-butyl ether	ug/kg	ND	7.4	02/02/12 13:15	
Methylene Chloride	ug/kg	ND	29.6	02/02/12 13:15	
n-Butylbenzene	ug/kg	ND	7.4	02/02/12 13:15	
n-Propylbenzene	ug/kg	ND	7.4	02/02/12 13:15	
Naphthalene	ug/kg	ND	7.4	02/02/12 13:15	
o-Xylene	ug/kg	ND	7.4	02/02/12 13:15	
p-Isopropyltoluene	ug/kg	ND	7.4	02/02/12 13:15	
sec-Butylbenzene	ug/kg	ND	7.4	02/02/12 13:15	
Styrene	ug/kg	ND	7.4	02/02/12 13:15	
tert-Butylbenzene	ug/kg	ND	7.4	02/02/12 13:15	
Tetrachloroethene	ug/kg	ND	7.4	02/02/12 13:15	
Toluene	ug/kg	ND	7.4	02/02/12 13:15	
trans-1,2-Dichloroethene	ug/kg	ND	7.4	02/02/12 13:15	
trans-1,3-Dichloropropene	ug/kg	ND	7.4	02/02/12 13:15	
Trichloroethene	ug/kg	ND	7.4	02/02/12 13:15	
Trichlorofluoromethane	ug/kg	ND	7.4	02/02/12 13:15	
Vinyl acetate	ug/kg	ND	74.0	02/02/12 13:15	
Vinyl chloride	ug/kg	ND	14.8	02/02/12 13:15	
Xylene (Total)	ug/kg	ND	14.8	02/02/12 13:15	
1,2-Dichloroethane-d4 (S)	%	104	70-132	02/02/12 13:15	
4-Bromofluorobenzene (S)	%	99	70-130	02/02/12 13:15	
Dibromofluoromethane (S)	%	103	70-130	02/02/12 13:15	
Toluene-d8 (S)	%	100	70-130	02/02/12 13:15	

LABORATORY CONTROL SAMPLE: 717104

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	65.6	65.2	99	70-131	
1,1,1-Trichloroethane	ug/kg	65.6	59.0	90	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	65.6	65.4	100	70-130	
1,1,2-Trichloroethane	ug/kg	65.6	62.2	95	70-132	
1,1-Dichloroethane	ug/kg	65.6	58.4	89	70-143	
1,1-Dichloroethene	ug/kg	65.6	55.5	85	70-137	
1,1-Dichloropropene	ug/kg	65.6	60.0	91	70-135	
1,2,3-Trichlorobenzene	ug/kg	65.6	63.1	96	69-153	
1,2,3-Trichloropropane	ug/kg	65.6	63.8	97	70-130	
1,2,4-Trichlorobenzene	ug/kg	65.6	60.7	92	55-171	
1,2,4-Trimethylbenzene	ug/kg	65.6	63.6	97	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	65.6	64.7	99	68-141	
1,2-Dibromoethane (EDB)	ug/kg	65.6	67.6	103	70-130	

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QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

LABORATORY CONTROL SAMPLE: 717104

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichlorobenzene	ug/kg	65.6	63.6	97	70-140	
1,2-Dichloroethane	ug/kg	65.6	62.8	96	70-137	
1,2-Dichloropropane	ug/kg	65.6	62.8	96	70-133	
1,3,5-Trimethylbenzene	ug/kg	65.6	62.3	95	70-143	
1,3-Dichlorobenzene	ug/kg	65.6	61.9	94	70-144	
1,3-Dichloropropane	ug/kg	65.6	63.6	97	70-132	
1,4-Dichlorobenzene	ug/kg	65.6	62.9	96	70-142	
2,2-Dichloropropane	ug/kg	65.6	58.3	89	68-152	
2-Butanone (MEK)	ug/kg	131	120J	92	70-149	
2-Chlorotoluene	ug/kg	65.6	64.8	99	70-141	
2-Hexanone	ug/kg	131	135	103	70-149	
4-Chlorotoluene	ug/kg	65.6	65.7	100	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	131	127	97	70-153	
Acetone	ug/kg	131	118J	90	70-157	
Benzene	ug/kg	65.6	63.2	96	70-130	
Bromobenzene	ug/kg	65.6	63.1	96	70-141	
Bromochloromethane	ug/kg	65.6	60.0	91	70-149	
Bromodichloromethane	ug/kg	65.6	65.7	100	70-130	
Bromoform	ug/kg	65.6	69.6	106	70-131	
Bromomethane	ug/kg	65.6	67.5	103	64-136	
Carbon tetrachloride	ug/kg	65.6	62.4	95	70-154	
Chlorobenzene	ug/kg	65.6	63.5	97	70-135	
Chloroethane	ug/kg	65.6	57.4	87	68-151	
Chloroform	ug/kg	65.6	66.0	101	70-130	
Chloromethane	ug/kg	65.6	65.3	100	70-132	
cis-1,2-Dichloroethene	ug/kg	65.6	58.6	89	70-140	
cis-1,3-Dichloropropene	ug/kg	65.6	63.9	97	70-137	
Dibromochloromethane	ug/kg	65.6	67.9	104	70-130	
Dibromomethane	ug/kg	65.6	64.0	98	70-136	
Dichlorodifluoromethane	ug/kg	65.6	64.5	98	36-148	
Diisopropyl ether	ug/kg	65.6	62.8	96	70-139	
Ethylbenzene	ug/kg	65.6	63.1	96	70-137	
Hexachloro-1,3-butadiene	ug/kg	65.6	59.4	91	70-145	
Isopropylbenzene (Cumene)	ug/kg	65.6	62.7	96	70-141	
m&p-Xylene	ug/kg	131	126	96	70-140	
Methyl-tert-butyl ether	ug/kg	65.6	63.6	97	45-150	
Methylene Chloride	ug/kg	65.6	63.9	97	70-133	
n-Butylbenzene	ug/kg	65.6	61.3	93	65-155	
n-Propylbenzene	ug/kg	65.6	60.8	93	70-148	
Naphthalene	ug/kg	65.6	69.1	105	70-148	
o-Xylene	ug/kg	65.6	63.5	97	70-141	
p-Isopropyltoluene	ug/kg	65.6	63.9	97	70-148	
sec-Butylbenzene	ug/kg	65.6	62.6	95	70-145	
Styrene	ug/kg	65.6	66.4	101	70-138	
tert-Butylbenzene	ug/kg	65.6	62.8	96	70-143	
Tetrachloroethene	ug/kg	65.6	60.1	92	70-140	
Toluene	ug/kg	65.6	57.4	87	70-130	
trans-1,2-Dichloroethene	ug/kg	65.6	56.0	85	70-136	

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QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

LABORATORY CONTROL SAMPLE: 717104

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,3-Dichloropropene	ug/kg	65.6	63.9	97	70-138	
Trichloroethene	ug/kg	65.6	63.4	97	70-132	
Trichlorofluoromethane	ug/kg	65.6	57.3	87	69-134	
Vinyl acetate	ug/kg	131	94.3	72	24-161	
Vinyl chloride	ug/kg	65.6	64.2	98	55-140	
Xylene (Total)	ug/kg	197	189	96	70-141	
1,2-Dichloroethane-d4 (S)	%			100	70-132	
4-Bromofluorobenzene (S)	%			101	70-130	
Dibromofluoromethane (S)	%			97	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

QC Batch: OEXT/16315
QC Batch Method: EPA 3546
Analysis Method: EPA 8270
Analysis Description: 8270 Solid MSSV Microwave
Associated Lab Samples: 92111244001

METHOD BLANK: 717301
Matrix: Solid
Associated Lab Samples: 92111244001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	330	02/04/12 12:22	
1,2-Dichlorobenzene	ug/kg	ND	330	02/04/12 12:22	
1,3-Dichlorobenzene	ug/kg	ND	330	02/04/12 12:22	
1,4-Dichlorobenzene	ug/kg	ND	330	02/04/12 12:22	
1-Methylnaphthalene	ug/kg	ND	330	02/04/12 12:22	
2,4,5-Trichlorophenol	ug/kg	ND	330	02/04/12 12:22	
2,4,6-Trichlorophenol	ug/kg	ND	330	02/04/12 12:22	
2,4-Dichlorophenol	ug/kg	ND	330	02/04/12 12:22	
2,4-Dimethylphenol	ug/kg	ND	330	02/04/12 12:22	
2,4-Dinitrophenol	ug/kg	ND	1650	02/04/12 12:22	
2,4-Dinitrotoluene	ug/kg	ND	330	02/04/12 12:22	
2,6-Dinitrotoluene	ug/kg	ND	330	02/04/12 12:22	
2-Chloronaphthalene	ug/kg	ND	330	02/04/12 12:22	
2-Chlorophenol	ug/kg	ND	330	02/04/12 12:22	
2-Methylnaphthalene	ug/kg	ND	330	02/04/12 12:22	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	02/04/12 12:22	
2-Nitroaniline	ug/kg	ND	1650	02/04/12 12:22	
2-Nitrophenol	ug/kg	ND	330	02/04/12 12:22	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	330	02/04/12 12:22	
3,3'-Dichlorobenzidine	ug/kg	ND	1650	02/04/12 12:22	
3-Nitroaniline	ug/kg	ND	1650	02/04/12 12:22	
4,6-Dinitro-2-methylphenol	ug/kg	ND	660	02/04/12 12:22	
4-Bromophenylphenyl ether	ug/kg	ND	330	02/04/12 12:22	
4-Chloro-3-methylphenol	ug/kg	ND	660	02/04/12 12:22	
4-Chloroaniline	ug/kg	ND	1650	02/04/12 12:22	
4-Chlorophenylphenyl ether	ug/kg	ND	330	02/04/12 12:22	
4-Nitroaniline	ug/kg	ND	660	02/04/12 12:22	
4-Nitrophenol	ug/kg	ND	1650	02/04/12 12:22	
Acenaphthene	ug/kg	ND	330	02/04/12 12:22	
Acenaphthylene	ug/kg	ND	330	02/04/12 12:22	
Aniline	ug/kg	ND	330	02/04/12 12:22	
Anthracene	ug/kg	ND	330	02/04/12 12:22	
Benzo(a)anthracene	ug/kg	ND	330	02/04/12 12:22	
Benzo(a)pyrene	ug/kg	ND	330	02/04/12 12:22	
Benzo(b)fluoranthene	ug/kg	ND	330	02/04/12 12:22	
Benzo(g,h,i)perylene	ug/kg	ND	330	02/04/12 12:22	
Benzo(k)fluoranthene	ug/kg	ND	330	02/04/12 12:22	
Benzoic Acid	ug/kg	ND	1650	02/04/12 12:22	
Benzyl alcohol	ug/kg	ND	660	02/04/12 12:22	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	02/04/12 12:22	
bis(2-Chloroethyl) ether	ug/kg	ND	330	02/04/12 12:22	
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	02/04/12 12:22	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	02/04/12 12:22	

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(704)875-9092

QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

METHOD BLANK: 717301 Matrix: Solid

Associated Lab Samples: 92111244001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Butylbenzylphthalate	ug/kg	ND	330	02/04/12 12:22	
Chrysene	ug/kg	ND	330	02/04/12 12:22	
Di-n-butylphthalate	ug/kg	ND	330	02/04/12 12:22	
Di-n-octylphthalate	ug/kg	ND	330	02/04/12 12:22	
Dibenz(a,h)anthracene	ug/kg	ND	330	02/04/12 12:22	
Dibenzofuran	ug/kg	ND	330	02/04/12 12:22	
Diethylphthalate	ug/kg	ND	330	02/04/12 12:22	
Dimethylphthalate	ug/kg	ND	330	02/04/12 12:22	
Fluoranthene	ug/kg	ND	330	02/04/12 12:22	
Fluorene	ug/kg	ND	330	02/04/12 12:22	
Hexachloro-1,3-butadiene	ug/kg	ND	330	02/04/12 12:22	
Hexachlorobenzene	ug/kg	ND	330	02/04/12 12:22	
Hexachlorocyclopentadiene	ug/kg	ND	330	02/04/12 12:22	
Hexachloroethane	ug/kg	ND	330	02/04/12 12:22	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	02/04/12 12:22	
Isophorone	ug/kg	ND	330	02/04/12 12:22	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	02/04/12 12:22	
N-Nitrosodimethylamine	ug/kg	ND	330	02/04/12 12:22	
N-Nitrosodiphenylamine	ug/kg	ND	330	02/04/12 12:22	
Naphthalene	ug/kg	ND	330	02/04/12 12:22	
Nitrobenzene	ug/kg	ND	330	02/04/12 12:22	
Pentachlorophenol	ug/kg	ND	1650	02/04/12 12:22	
Phenanthrene	ug/kg	ND	330	02/04/12 12:22	
Phenol	ug/kg	ND	330	02/04/12 12:22	
Pyrene	ug/kg	ND	330	02/04/12 12:22	
2,4,6-Tribromophenol (S)	%	87	27-110	02/04/12 12:22	
2-Fluorobiphenyl (S)	%	75	30-110	02/04/12 12:22	
2-Fluorophenol (S)	%	71	13-110	02/04/12 12:22	
Nitrobenzene-d5 (S)	%	78	23-110	02/04/12 12:22	
Phenol-d6 (S)	%	75	22-110	02/04/12 12:22	
Terphenyl-d14 (S)	%	88	28-110	02/04/12 12:22	

LABORATORY CONTROL SAMPLE: 717302

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	1360	81	39-101	
1,2-Dichlorobenzene	ug/kg	1670	1300	78	36-110	
1,3-Dichlorobenzene	ug/kg	1670	1290	77	35-110	
1,4-Dichlorobenzene	ug/kg	1670	1300	78	35-110	
1-Methylnaphthalene	ug/kg	1670	1290	77	45-105	
2,4,5-Trichlorophenol	ug/kg	1670	1330	80	48-109	
2,4,6-Trichlorophenol	ug/kg	1670	1500	90	45-111	
2,4-Dichlorophenol	ug/kg	1670	1370	82	51-116	
2,4-Dimethylphenol	ug/kg	1670	1250	75	42-103	
2,4-Dinitrophenol	ug/kg	8330	8070	97	28-103	

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QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

LABORATORY CONTROL SAMPLE: 717302

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/kg	1670	1740	105	46-114	
2,6-Dinitrotoluene	ug/kg	1670	1670	100	48-112	
2-Chloronaphthalene	ug/kg	1670	1390	83	44-105	
2-Chlorophenol	ug/kg	1670	1300	78	36-110	
2-Methylnaphthalene	ug/kg	1670	1300	78	39-112	
2-Methylphenol(o-Cresol)	ug/kg	1670	1110	66	39-101	
2-Nitroaniline	ug/kg	3330	3220	96	44-111	
2-Nitrophenol	ug/kg	1670	1550	93	41-100	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	1130	68	43-103	
3,3'-Dichlorobenzidine	ug/kg	3330	3070	92	10-150	
3-Nitroaniline	ug/kg	3330	3090	93	35-110	
4,6-Dinitro-2-methylphenol	ug/kg	3330	3240	97	38-118	
4-Bromophenylphenyl ether	ug/kg	1670	1360	82	47-115	
4-Chloro-3-methylphenol	ug/kg	3330	2960	89	43-127	
4-Chloroaniline	ug/kg	3330	2550	76	34-109	
4-Chlorophenylphenyl ether	ug/kg	1670	1410	85	44-115	
4-Nitroaniline	ug/kg	3330	3180	95	37-111	
4-Nitrophenol	ug/kg	8330	8330	100	21-152	
Acenaphthene	ug/kg	1670	1320	79	38-117	
Acenaphthylene	ug/kg	1670	1310	79	46-107	
Aniline	ug/kg	1670	1060	64	29-110	
Anthracene	ug/kg	1670	1410	85	50-110	
Benzo(a)anthracene	ug/kg	1670	1400	84	47-116	
Benzo(a)pyrene	ug/kg	1670	1380	83	47-106	
Benzo(b)fluoranthene	ug/kg	1670	1270	76	47-109	
Benzo(g,h,i)perylene	ug/kg	1670	1420	85	39-115	
Benzo(k)fluoranthene	ug/kg	1670	1430	86	45-117	
Benzoic Acid	ug/kg	8330	5970	72	16-110	
Benzyl alcohol	ug/kg	3330	2420	73	38-105	
bis(2-Chloroethoxy)methane	ug/kg	1670	1200	72	39-110	
bis(2-Chloroethyl) ether	ug/kg	1670	1230	74	19-119	
bis(2-Chloroisopropyl) ether	ug/kg	1670	983	59	21-110	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1620	97	35-116	
Butylbenzylphthalate	ug/kg	1670	1610	97	38-110	
Chrysene	ug/kg	1670	1500	90	49-110	
Di-n-butylphthalate	ug/kg	1670	1570	94	43-109	
Di-n-octylphthalate	ug/kg	1670	1660	99	37-109	
Dibenz(a,h)anthracene	ug/kg	1670	1380	83	43-116	
Dibenzofuran	ug/kg	1670	1390	83	45-106	
Diethylphthalate	ug/kg	1670	1550	93	41-114	
Dimethylphthalate	ug/kg	1670	1430	86	43-110	
Fluoranthene	ug/kg	1670	1450	87	50-114	
Fluorene	ug/kg	1670	1370	82	46-114	
Hexachloro-1,3-butadiene	ug/kg	1670	1420	85	28-111	
Hexachlorobenzene	ug/kg	1670	1400	84	46-120	
Hexachlorocyclopentadiene	ug/kg	1670	991	59	18-119	
Hexachloroethane	ug/kg	1670	1340	80	33-110	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1390	83	42-115	

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QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

LABORATORY CONTROL SAMPLE: 717302

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Isophorone	ug/kg	1670	1330	80	44-109	
N-Nitroso-di-n-propylamine	ug/kg	1670	1160	69	43-104	
N-Nitrosodimethylamine	ug/kg	1670	1160	70	29-110	
N-Nitrosodiphenylamine	ug/kg	1670	1400	84	48-113	
Naphthalene	ug/kg	1670	1230	74	41-110	
Nitrobenzene	ug/kg	1670	1310	79	38-110	
Pentachlorophenol	ug/kg	3330	3280	98	32-128	
Phenanthrene	ug/kg	1670	1310	79	50-110	
Phenol	ug/kg	1670	1260	75	28-106	
Pyrene	ug/kg	1670	1340	81	45-114	
2,4,6-Tribromophenol (S)	%			100	27-110	
2-Fluorobiphenyl (S)	%			74	30-110	
2-Fluorophenol (S)	%			76	13-110	
Nitrobenzene-d5 (S)	%			75	23-110	
Phenol-d6 (S)	%			69	22-110	
Terphenyl-d14 (S)	%			86	28-110	

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QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

QC Batch: OEXT/16342
QC Batch Method: MADEP EPH
Analysis Method: MADEP EPH
Analysis Description: MADEP EPH NC Soil
Associated Lab Samples: 92111244001

METHOD BLANK: 718513 Matrix: Solid
Associated Lab Samples: 92111244001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C09-C18)	mg/kg	ND	10.0	02/07/12 15:20	N2
Aliphatic (C19-C36)	mg/kg	ND	10.0	02/07/12 15:20	N2
Aromatic (C11-C22)	mg/kg	ND	10.0	02/07/12 15:20	N2
2-Bromonaphthalene (S)	%	79	40-140	02/07/12 15:20	
2-Fluorobiphenyl (S)	%	76	40-140	02/07/12 15:20	
Nonatriacontane (S)	%	67	40-140	02/07/12 15:20	
o-Terphenyl (S)	%	49	40-140	02/07/12 15:20	

LABORATORY CONTROL SAMPLE & LCSD: 718514 718515

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C09-C18)	mg/kg	9.9	ND	ND	51	49	40-140		50	N2
Aliphatic (C19-C36)	mg/kg	13.2	ND	ND	58	57	40-140		50	N2
Aromatic (C11-C22)	mg/kg	28.1	21.6	20.5	77	73	40-140	5	50	N2
2-Bromonaphthalene (S)	%				105	99	40-140			
2-Fluorobiphenyl (S)	%				103	91	40-140			
Nonatriacontane (S)	%				52	51	40-140			
o-Terphenyl (S)	%				65	68	40-140			

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QUALITY CONTROL DATA

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

QC Batch: PMST/4464
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92111244001

SAMPLE DUPLICATE: 716931

Parameter	Units	92111311001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	18.9	18.2	4	

SAMPLE DUPLICATE: 716932

Parameter	Units	92111301002 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	22.9	22.9	0	

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QUALIFIERS

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

1g	Surrogate fails after Moisture Correction for Methanol.
N2	The lab does not hold TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WILKES COUNTY WBS#35579.1.1
Pace Project No.: 92111244

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92111244001	**P207-UST-1 (6.5)**	MADEP EPH	OEXT/16342	MADEP EPH	GCSV/11332
92111244001	**P207-UST-1 (6.5)**	MADEP VPH	GCV/5721	MADEP VPH	GCV/5722
92111244001	**P207-UST-1 (6.5)**	EPA 3546	OEXT/16315	EPA 8270	MSSV/5942
92111244001	**P207-UST-1 (6.5)**	EPA 8260	MSV/18071		
92111244001	**P207-UST-1 (6.5)**	ASTM D2974-87	PMST/4464		

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Parcel 207

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

1508457

Section A Required Client Information:

Company: AMEC
Address: 2801 Yorkmont Rd Ste 100
Charlotte, NC 28208
Email To: helen.corley@amec.com
Phone: 704-357-8600 Fax:
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Helen Corley
Copy To: Troy Holzschuh
Purchase Order No.: WBS: ~~56677340~~ 35579.1.1
Project Name: Wilkes County
Project Number: 56677340

Section C Invoice Information:

Attention: Terry Fox
Company Name: NCDOT
Address: 1589 Mail Service Center, Raleigh NC
Pace Quote Reference: WBS: 35579.1.1
Pace Project Manager:
Pace Profile #: 4098-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

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

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS 7 vials 2 jars	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test: 8260	8270	EPH	VPH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	P207-UST-1(6.5)	SL	G	1-31-12	1320				9										X	X	X	X		92111244 001
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Troy L Holzschuh / AMEC	2-1-12	1200	[signature] FPHR	02/01/12	1200	3.1	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Troy L Holzschuh
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 2/1/12

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

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: January 30, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.06**	Issuing Authority: Pace Huntersville Quality Office

Client Name: AMEC Project # 92111244

Where Received: ☐ Huntersville ☑ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other_____

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

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

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

Temp Correction Factor **T1101**: No Correction **T1102**: Subtract 1.2°C

Corrected Cooler Temp.: 3.1 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Optional
Proj. Due Date:
Proj. Name:

Date and Initials of person examining contents: 2/1/12

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: ~~Methe~~ RG 2/1/12 Sample was preserved with methanol within 48 hrs of collection, RG 2/1/12

SCURF Review: JZ **Date:** 2/1/12 **SRF Review:** JZ **Date:** 2/1/12

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

APPENDIX E

UST-2 – Site Investigation Report for Permanent Closure or Change in Service of UST

UST-3 – Notice of Intent: UST Permanent Closure or Change in Service

AMEC of North Carolina, Inc.
2801 Yorkmont Road, Suite 100
Charlotte, NC 28208
Licensure: NC Engineering F-1253 NC Geology C-247 **www.amec.com**

Tel – (704) 357-6800
Fax – (704) 357-8638

UST-2 Site Investigation Report for Permanent Closure or Change-in-Service of UST

Return completed form to:
The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out.
SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY:
I.D. #_____
Date Received_____

INSTRUCTIONS (READ THIS FIRST)

For more than five UST systems you may attach additional forms as needed.

Permanent closure – For permanent closure, complete all sections of this form.

Change-in-service – For change-in-service where UST systems will be converted from containing a regulated substance to storing a non-regulated substance, complete sections I, II, III, IV, and VIII

Effective February 1, 1995, all UST closure/change-in-service reports must be submitted in the format provided in the UST-12 form. UST closure and change-in-services must be completed in accordance with the latest version of the *Guidelines for Tank Closure*. A copy of the UST-12 form and the *Guidelines for Tank Closure* can be obtained at www.wastenotnc.org.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

NOTE: If a release from the tank(s) has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G.

I. OWNERSHIP OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity)		
Gary Bruce Miller		
Street Address 3333 Sparta Road		
City North Wilkesboro	County Wilkes	
State NC	Zip Code 28659	
Phone Number		

II. LOCATION OF TANKS

Facility Name or Company Vacant Retail Store		
Facility ID # (If known)		
Street Address 3333 Sparta Road		
City North Wilkesboro	County Wilkes	Zip Code 28659
Phone Number		

III. CONTACT PERSONNEL

Contact for Facility: Terry W. Fox		Job Title: GeoEnvironmental Project Manager	Phone. No: 919-707-6870
Closure Contractor Name: Tony Disher	Closure Contractor Company: EVO Corp	Address: 1703 Vargrave St Winston Salem, NC	Phone. No: 336-725-5844
Primary Consultant Name: Troy L Holzschuh	Primary Consultant Company: AMEC E & I	Address: 2801 Yorkmont Rd, Charlotte, NC	Phone. No: 704-357-5616

IV. UST INFORMATION FOR REGISTERED UST SYSTEMS

V. EXCAVATION CONDITION

Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Change-in-Service Date	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐

VI. UST INFORMATION FOR UNREGISTERED UST SYSTEMS

VII. EXCAVATION CONDITION

Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Tank Owner Name *	Water In excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
	560	3.5'X7.75'	Unknown	unknow n	1-31-12	Gary Miller	☐	☒	☐	☒	☐	☒
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐

* If the tank owner address is different from the one listed in Section I., then enter the street address, city, state, zip code and telephone no. below:

VIII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true accurate and complete.

Print name and official title of owner or owner's authorized representative	Signature	Date Signed
Troy L Holzschuh	Troy L Holzschuh	2/1/2012

UST-3 Notice of Intent: UST Permanent Closure or Change-In-Service

Return completed form to:
The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out.
SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY
I.D. #_____
Date Received_____

INSTRUCTIONS (READ THIS FIRST)

Complete and return at least **thirty (30) days** prior to closure or change-in-service activities. If a Professional Engineer (P.E.) or a Licensed Geologist (L.G.) provides supervision for closure or change-in-service site assessment activities and signs and seals all closure reports then at least a **five (5) working days** notice is acceptable.

Completed UST closure or change-in-service site assessment reports, along with a copy of the UST-2 form, should be submitted to the appropriate Division of Waste Management (DWM) Regional Office within thirty (30) days following closure activities. The UST-2 form should also be submitted to the Central Office in Raleigh so that the status of the tanks may be changed to permanently closed and your tank fee account can be closed out.

UST closure and change-in-service site assessments must be completed in accordance with the latest version of the *Guidelines for Tank Closure*. The *Guidelines for Tank Closure* can be obtained at www.wastenotnc.org.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

I. OWNERSHIP OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity) Gary Bruce Miller		
Street Address 3333 Sparta Road		
City North Wilkesboro	County Wilkes	
State NC	Zip Code 28659	
Phone Number		

II. LOCATION

Facility Name or Company Vacant retail store		
Facility ID # (If known)		
Street Address 3333 Sparta Road		
City North Wilkesbor	County Wilkes	Zip Code 28659
Phone Number		

III. CONTACT PERSONNEL

Name:	Company Name:	Job Title:	Phone Number:
Terry W. Fox, LG	NCDOT	GeoEnvironmental Project Manager	919-707-6870

IV. TANK REMOVAL, CLOSURE IN PLACE, CHANGE-IN-SERVICE

1. Contact local fire marshal.
2. Plan entire closure event.
3. Conduct Site Soil Assessment.
4. If removing tanks or closing in place, refer to API Publication 2015 *Cleaning Petroleum Storage Tanks* and 1604 *Removal and Disposal of Used Underground Petroleum Storage Tanks.*
5. Provide a sketch locating piping, tanks and soil sampling locations.
6. Submit a closure report in the format of UST-12 (including the form UST-2) within thirty (30) days following the site investigation.
7. If a release from the tanks has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G. If a release has not occurred, the supervision, signature or seal of a P.E. or L.G. is not required.
8. Keep closure records for three (3) years.

V. WORK TO BE PERFORMED BY

Contractor Name: Tony Disher	Contractor Company Name: Evo Corp		
Address: 1703 Vargrave St, Winston Salem	State: NC	Zip Code: 27107	Phone No: 336-725-5844
Primary Consultant Name: Troy L. Holzschuh	Primary Consultant Company Name: AMEC E&I		Consultant Phone No: 704-357-8800

VI. TANKS SCHEDULED FOR CLOSURE OR CHANGE-IN-SERVICE

Tank ID No.	Size in Gallons	Last Contents	Proposed Activity: Closure – Removal	Proposed Activity: Closure – Abandonment in Place *	Proposed Activity: Change-In-Service – New Contents Stored
	560	Unknown	☒	☐	
		None	☐	☐	
			☐	☐	
			☐	☐	
			☐	☐	

* Prior written approval to abandon a tank in place must be received from a DWM Regional Office.

VII. OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE

I understand that I can be held responsible for environmental damage resulting from the improper disposal of my USTs.

Print name and official title: Troy L. Holzschuh/Engineering Technician

Signature	Date Signed	SCHEDULED REMOVAL DATE	Notify your DWM Regional Office 48 hours before this date if scheduled removal date changes
Troy L Holzschuh	1-16-12	1-30-11	